



The Township of Nipigon

**NIPIGON MEMORIAL DISTRICT HOSPITAL SEWER  
REALIGNMENT**

**Nipigon, Ontario  
Tender No: ToN-2026-001**

**SPECIFICATIONS**

**KGS File No. 24-0847-001**



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**LIST OF DRAWINGS**

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No.	Description	Rev. No.
C00.00	Title Page – Key Plan & Index	0
C01.00	General Notes & Details	0
C02.00	Demolition Plan	0
C03.00	Proposed Overall Site Plan	0
C04.00	Plan and Profile Sta: 1+000 to 1+110	0
C04.01	Plan and Profile Sta: 1+105 to 1+240	0
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**The work to be performed under this Contract is for the Nipigon Memorial District Hospital Sewer Realignment project to the limits identified.**

The following represents Ontario Provincial Standard Specifications referenced within the contract documents, but is not intended to be a complete or all-inclusive list of all standards referenced or required.

**STANDARD SPECIFICATIONS**

**Ontario Provincial Standard Specification Municipal Oriented - OPSS.MUNI**

No.	Issue Date	Title
100	Nov 2024	OPS General Conditions of Contract
102	Nov 2018	Weighing of Materials
120	Nov 2019	Use of Explosives
180	Apr 2025	General Specification for the Management of Excess Materials
182	Nov 2020	Environmental Protection for Construction In and Around Waterbodies and On Waterbody Banks
201	Apr 2019	Clearing, Close Cut Clearing, Grubbing and Removal of Surface Boulders and Piled Boulders
206	Apr 2019	Grading
310	Nov 2017	Hot Mix Asphalt
311	Nov 2018	Asphalt Sidewalk, Driveway, and Boulevard and for Sidewalk Resurfacing
314	Nov 2023	Untreated Granular Subbase, Base, Surface, Shoulder and Stockpiling
316	Nov 2018	Extruded Expanded Polystyrene Frost Heave Treatment
351	Nov 2021	Concrete Sidewalk
353	Nov 2021	Concrete Curb and Gutter Systems
401	Nov 2024	Trenching, Backfilling, and Compacting
402	Nov 2024	Excavating, Backfilling and Compacting for Maintenance Holes, Catch Basins, Ditch Inlets and valve chambers
407	Nov 2021	Maintenance Hole, Catch Basin, Ditch Inlet, and Valve Chamber Installation
408	Nov 2022	Adjusting or Rebuilding Maintenance Holes, Catch Basins, Ditch Inlets, and Valve Chambers
409	Apr 2025	Closed-Circuit Television (CCTV) Inspection of Pipelines

410	Nov 2018	Pipe Sewer Installation in Open Cut
411	Nov 2021	Cleaning and Flushing of Pipe Sewers, Catch Basins, Maintenance Holes, Ditch Inlets, and Oil-Grit Separators
450	Nov 2021	Pipeline and Utility Installation in Soil by Horizontal Directional Drilling
491	Nov 2017	Preservation, Protection, and Reconstruction of Existing Facilities
492	Nov 2020	Site Restoration Following Installation of Pipelines Utilities, and Associated Structures
493	Nov 2019	Temporary Potable Water Supply Services
501	Nov 2017	Compacting
506	Nov 2017	Dust Suppressants
510	Nov 2018	Removal
517	Nov 2021	Dewatering
539	Nov 2021	Temporary Protection Systems
706	Apr 2018	Temporary Traffic Control Devices
801	Nov 2019	The Protection of Trees
802	Nov 2019	Topsoil
803	Apr 2018	Sodding
804	Nov 2014	Seed and Cover
805	Nov 2021	Temporary Erosion and Sediment Control Measures
1001	Nov 2021	Aggregates - General
1002	Nov 2013	Aggregates - Concrete
1003	Nov 2013	Aggregates - Hot Mix Asphalt
1004	Nov 2021	Aggregates - Miscellaneous
1010	Apr 2025	Aggregates - Base, Subbase, Select Subgrade, Granular Surface, Shouldering, Bedding, and Backfill Material
1103	Nov 2019	Emulsified Asphalt
1150	Nov 2020	Hot Mix Asphalt
1301	Nov 2018	Cementing Materials
1303	Apr 2019	Admixtures for Concrete
1305	Apr 2019	Moisture Vapour Barriers
1306	Apr 2019	Burlap
1315	Nov 2021	White Pigmented Curing Compounds for Concrete
1350	Nov 2023	Concrete - Materials and Production
1351	Nov 2024	Precast Reinforced Concrete Components for Maintenance Holes, Catch Basins, Ditch Inlets, And Valve Chambers
1359	Nov 2016	Unshrinkable Backfill
1605	Nov 2018	Extruded Expanded Polystyrene Pavement Insulation
1841	Nov 2019	Non-Pressure Polyvinyl Chloride Pipe Products
1843	Nov 2019	Non-Pressure Polypropylene (PP) Plastic Pipe Products
1850	Nov 2020	Frames, Grates, Covers, and Gratings
1860	Nov 2018	Geotextiles
2420	April 2019	Material Specifications for Wooden Poles
2501	Nov 2023	Calcium Chloride and Calcium-Magnesium Chloride Blend

For a copy of all OPSD's and OPS specifications, please refer to the MTO Library Website at <https://www.library.mto.gov.on.ca/SydneyPLUS/TechPubs/Portal/tp/opsSplash.aspx>

This page lists the most current published version of all OPSD's and OPSS's.

**City of Thunder Bay Engineering Standards Drawing**

<b>Dwg No.</b>	<b>Rev Date</b>	<b>Title</b>
M-104-4	Jan 2014	Tree Protection Barriers
M-104-4.1	Jan 2013	Tree Root Protection
R-108	Jan 2018	Patching for Roadway Cuts
R-115	Jan 2020	Concrete Curb and Gutter Around Fixtures

Current editions of OPSS, MECP, AWWA, CSA and ASTM Standards referenced in the Project Specifications.

**TENDERER'S CHECK LIST**

Before submitting your tender, check the following points, and include with your tender:

1. Has your tender been signed, sealed and witnessed?
2. Have you enclosed the Tender Deposit, i.e. certified check or bid bond?  
(Whichever is required by the Contract Documents)
3. Have you enclosed the Agreement to Bond, signed and sealed by your proposed Surety?
4. Have you completed all schedules and prices in the Form of Tender?
5. Have you indicated and included the Provisional & Contingency Items in the Form of Tender?
6. Have you indicated the number of addenda included in the Form of Tender?
7. Have you shown the time for completion of the Work? (If applicable)
8. Have you listed your Sub-Contractors and major suppliers? (If applicable)
9. Have you listed your Experience in Similar Work? (If applicable)
10. Have you listed your Senior Staff? (If applicable)
11. Have you listed the Tenderer's Plant? (If applicable)
12. Have you listed your sources of Granular Materials, Concrete and Asphalt? (If applicable)
13. Have you completed Tendering Statements "A" to "J"?
14. Have you enclosed the Occupational Health and Safety Agreement?
15. Are the documents complete?

## 1.0 TENDERS

1.1 The Township will be accepting proposals for:

### **Nipigon Hospital Sewer Realignment**

The Bidders may submit one (1) digital copy (PDF) of their Tenders to the following;

To: [abarrett@kgsgroup.com](mailto:abarrett@kgsgroup.com)  
CC: [kmaunula@kgsgroup.com](mailto:kmaunula@kgsgroup.com)  
[pws@nipigon.net](mailto:pws@nipigon.net)

Tenders to be titled “**Nipigon Hospital Sewer Realignment – No ToN-2026-001**” and must be received no later than: **2:00pm**, Local prevailing Nipigon time on: **May 22, 2026**

- 1.2 Electronic submission and/or tender envelope shall indicate the Contractor's name, return address and phone number.
- 1.3 The bidder is solely responsible to ensure submission/delivery to the correct location.
- 1.4 Offers submitted after above time shall be returned to Tenderer unopened.
- 1.5 Bidders will be notified of the results.
- 1.6 Amendments to the submitted offer will be permitted if received in writing prior to Tender closing and if endorsed by same party or parties who signed and sealed offer.
- 1.7 All tenders received will become the property of the Corporation of the Township of Nipigon and as such are subject to the Freedom of Information and Protection of Privacy Act. Tenders will be analysed by Owner after which a Contract may or may not be awarded. The lowest Tender or any Tender is not necessarily accepted. The Township reserves the right to reject any or all bids, to waive irregularities and information therein, and to award the contract in the best interest of the Township in its sole unfettered discretion.

## 2.0 SCOPE OF WORK

2.1 The scope of work, in general terms, involves the realignment of the. Work will include but not limited to:

- Mobilization and Demobilization
- Place and maintain detour signage
- Establish traffic/pedestrian control and environmental protection.
- Complete pre-construction survey layout
- Install new sanitary sewer as indicated
- Install new sanitary sewer manholes as indicated
- Rehabilitate disturbed areas to existing or better condition
- Remove existing sewage pumping station
- Reconstruct disturbed driveway approaches, walkways, etc.
- Reconstruct all surface features disturbed during construction
- All work as indicated on the Drawing and Specifications

**The description of the Work stated above is not, nor is it intended to be, a complete and all-inclusive "Description of Work".**

### **3.0 TYPE OF CONTRACT**

3.1 Unit Price Contract

3.2 OPS General Conditions of Contract – OPSS MUNI 100 November 2024 shall apply to this Contract.

### **4.0 PROJECT ORGANIZATION**

4.1 The Owner is the Corporation of the Township of Nipigon

4.2 The Project Manager and Contract Administrator is KGS Group.

### **5.0 TENDER PACKAGE**

5.1 Availability

1. Tender Documents may be downloaded from Merx contract portal.
2. Tender Documents are made available only for purpose of obtaining offers for this project. Their use does not confer license or grant for other purposes.

5.2 Examination

- .1 Tender Documents may be downloaded from Merx contract portal.
- .2 Tender Documents are on display only at the office of Thunder Bay Construction Association plan room facilities.
- .3 Upon receipt of Tender Documents verify that documents are complete.
- .4 Immediately upon finding discrepancies or omissions in the Tender Documents, notify the Contract Administrator by email to the addresses shown in **Section 6.1**.

### **6.0 GENERAL INQUIRIES/ADDENDA**

6.1 Direct questions to Alison Barrett, email: [abarrett@ksgroup.com](mailto:abarrett@ksgroup.com) and cc Kai Maunula, email: [kmaunula@ksgroup.com](mailto:kmaunula@ksgroup.com)

6.2 Addenda may be issued during tender period. All addenda become part of Contract Documents. Include costs in Tender Price.

6.3 All questions shall be submitted to email addresses shown in **section 6.1** and responses will posted in the form of a written addendum.

6.4 Clarifications requested by Tenderers must be in writing prior to **May 15, 2026 at 12:00pm**. Reply will be in form of an addendum, a copy of which will be uploaded on Merx no later than **May 19, 2026**.

## 7.0 SCHEDULE

7.1 The following is a summary of the Tendering dates:

<b>TASK</b>	<b>DATE</b>
<b>Deadline for Questions</b>	<b>MAY 15, 2026 – 12:00PM</b>
<b>Deadline for Addenda</b>	<b>MAY 19, 2026</b>
<b>Tender Closing</b>	<b>MAY 22, 2026 – 2:00PM</b>

## 8.0 SITE ASSESSMENT/EXAMINATION

- 8.1 Each Tenderer, during the period of tender, may make arrangements with the Township to visit the site of the work before submitting its Tender and shall perform all necessary investigations to satisfy itself as to the local conditions to be encountered during the construction and conduct of the work.
- 8.2 Geotechnical test holes were made to determine the character of the subsoil for design purposes. The Owner does not warrant any extrapolation or any interpretation of the borehole logs or any opinions or any conclusions thereon expressed in the geotechnical report(s) and the Tenderer waives any liability of the Owner arising from such report(s). The Tenderer, during the period of tender, is responsible for any extrapolation or any interpretation and for any opinions or any conclusions he may reach from an examination of the geotechnical report(s) and which he may have used in the preparing of the tender. The geotechnical report(s) is (are) not a part of the Contract Documents.
- 8.3 The Tenderer, during the period of tender, shall make such additional examination of the soil and subsurface conditions as it may deem necessary to satisfy itself as to the conditions that may be encountered during construction and make its own estimate of the surface facilities, sub-surface conditions and difficulties to be encountered.
- 8.4 Compare Tender documents with work in place.
- 8.5 No compensation will be made for failure to make proper site investigations or to fully understand the nature of the work and no claim at any time after submission of its Tender that there was any misunderstanding of the terms and conditions of the Contract relating to site conditions.
- 8.6 Bidders may attend a non-mandatory site visit scheduled for **May 13, 2026 at 1:00pm EST** to review site conditions and discuss the project. Bidders to meet outside of the Nipigon District Memorial Hospital, located at 125 Hogan Road. Parties will be required to sign in with Engineer's representative.

## 9.0 TENDER SUBMISSION

- 9.1 Electronic submission shall be submitted to [abarrett@ksgsgroup.com](mailto:abarrett@ksgsgroup.com) with cc to [kmaunula@ksgsgroup.com](mailto:kmaunula@ksgsgroup.com) and [pws@nipigon.net](mailto:pws@nipigon.net)
- 9.2 A complete Tender submission shall consist of the following:

- i. Form of Tender
- ii. Breakdown of Total Tender Price
- iii. Undertaking to Comply
- iv. Bid Bond and Agreement to Bond
- v. Supplement to Tender Forms:
  - Form A: List of Sub-Contractors and Suppliers.
  - Form B: Alternatives
  - Form C: Methodology
  - Form D: Schedule
  - Form E: Tenderer's Experience in Similar Work
  - Form F: Tenderer's Senior Supervisory Staff
  - Form G: Tenderer's Construction Equipment
  - Form H: Source of Materials
  - Form I: Fairness is a Two-Way Street
  - Form J: Identification Agreement

## **10.0 BID DEPOSIT**

10.1 Each Tender shall be accompanied with a bid deposit in the form of:

- i. A bid bond issued by a Surety Company acceptable to the Owner, in an amount of not less than 10% of the Total Tender Price. The bid bond must be signed and sealed both by the Surety Company and the Tenderer.

10.2 The bid deposit of the three lowest Bidders may be retained until either:

- i. The Contract, including any required bonds or other documents, have been executed.
- ii. The Tenders have lapsed.

## **11.0 CONSENT OF SURETY**

11.1 The Bidder shall include with his Tender a "Consent of Surety" submitted on a form supplied by the Surety Company and acceptable to the Owner and executed under the Surety Company's corporate seal. The Surety Company providing documentation must be the company from which the Bidder proposes to obtain any performance, labour and material payment bonds as required by the Owner.

## **12.0 TRAFFIC CONTROL PLAN**

12.1 A "Traffic Control Plan" is to be submitted by the successful contractor for review and approval by the owner prior to construction.

12.2 The Contractor will responsible for the supply, installation and maintenance of all detour signs, sign supports and hardware for the duration of construction.

12.3 The Contractor shall remove all signs upon the completion of the contract.

### **13.0 HEALTH & SAFETY MEETING MINUTES**

13.1 During construction, health and safety meetings shall be conducted as required by the Occupational Health and Safety Act.

### **14.0 PERFORMANCE BOND**

14.1 Prior to executing the Contract the Owner will require the successful Bidder to provide a performance bond in the amount of 100% of the bid amount. The bond shall be those issued by a bonding agency licensed to operate in the province of Ontario and in the form of the latest CCDC or the Surety Association of Canada's ne "processed enhance" performance bond.

14.2 Include the cost of such bond as separate price as indicated on the Tender Forms.

### **15.0 LABOUR AND MATERIAL PAYMENT BOND**

15.1 Prior to executing the Contract the Owner will require the successful Bidder to provide and maintain in good standing until the fulfillment of the Contract a Labour and Material Bond for 50% of the value of the bid amount. The bond shall be issued by a Surety Company acceptable to the Owner.

15.2 Include the cost of such bond as a separate price as indicated on the Tender Forms.

### **16.0 VALIDITY OF TENDER**

16.1 The Bidder agrees that his Tender submission and prices quoted in the Tender Forms are valid and open for acceptance by the Owner and shall be irrevocable for a period of sixty (60) calendar days from the date set for opening Tenders.

16.2 The Bidder agrees that this Tender is subject to a formal Contract being prepared and executed.

16.3 The acceptance by the Owner of any Tender shall not release any of the three lowest Bidders from their Tender until either:

- i. The Contract, including any required bonds and other documents, have been executed.
- ii. The Tenders have lapsed.

### **17.0 WITHDRAWAL OR QUALIFYING TENDERS**

17.1 A Bidder who has already submitted a Tender may submit a further Tender at any time up to the official closing time. The last Tender received shall supersede and invalidate all Tenders previously submitted by that Bidder for this Contract.

17.2 A Bidder may withdraw or qualify his Tender by letter, provided the notice is received on or before the official closing time. No telephone calls, telex messages, telegrams, emails or fax messages will be considered.

## **18.0 INFORMAL OR UNBALANCED TENDERS**

- 18.1 Tenders which are incomplete, conditional, illegible or otherwise obscure or that contain additions not called for, reservations, erasures, alterations, (unless properly identified and clearly made and initialled by the Tender signing officer), or irregularities of any kind may be rejected as informal.
- 18.2 All entries in the Tender shall be made in ink or by typewriter and the company seal affixed wherever signatures are required. Entries or changes made in pencil may be considered invalid or informal.
- 18.3 Tenders that contain prices that appear unbalanced as likely to adversely affect the interests of the Owner may be rejected.
- 18.4 The Owner reserves the right to waive informalities at his discretion.
- 18.5 The Owner reserves the right to reject any or all Tenders. The lowest Tender may not necessarily be accepted.

## **19.0 DISQUALIFICATION OF TENDERS**

- 19.1 No Tender shall be considered that:
- i. Is received after the official closing time set for receipt of Tenders.
  - ii. Is uploaded to Merx after the official closing time set for receipt of Tenders
  - iii. Is not accompanied by the required bid deposit.
  - iv. Is received by facsimile transmission.
  - v. Is not sealed in opaque envelope and labelled as per as indicated in Section 1.0 – Information to Tenderers.

## **20.0 OMISSIONS, DISCREPANCIES AND INTERPRETATIONS**

- 20.1 Should a Bidder find omissions or discrepancies in any of the Tender Documents, or should he be in doubt as to the meaning of any part of these documents, he should notify the Owner in writing not later than 10 working days before closing date for the Tender. If the Owner considers that a correction is necessary or desirable, he will issue an Addendum. No oral interpretations shall modify any provisions of the Tender Documents

## **21.0 APPROVAL OF EQUALS**

- 21.1 Whenever in the specifications a material is specified by trade names, manufacturer's name or by catalogue reference, use only such items unless written approval is obtained from the Owner prior to the closing date for the Tender.

- 21.2 Submit to the Contract Administer two sets of complete descriptive literature and performance data with all required scaled physical arrangement drawings, manufacturer's data and specifications and other information relating to the construction and performance of the apparatus.
- 21.3 The Owner will not process any application for "approved equal", status received less than 7 working days before the closing date set for Tenders.

## **22.0 PROPOSED ALTERNATIVES**

- 22.1 A Bidder may submit with his Tender a proposed alternative item of equipment or material that has not been approved equal, but that the Bidder wishes the Owner to consider because of superior quality or other potential cost savings. In this event the Bidder shall include with his Tender, full descriptive literature and performance data and list in Form B: Alternatives, of the Tender Documents, the addition to or deduction from his Total Tender Price if authorised by the Owner. The price quoted shall include the cost of all revisions required to incorporate the alternative item in the original design.
- 22.2 Indicate "N/A", in the Alternatives Form if no alternatives are submitted at time of tendering.

## **23.0 LUMP SUM FOR MOBILIZATION AND DEMOBILIZATION**

- 23.1 The mobilization and demobilization item is to cover the Tenderer's cost of mobilization at the beginning of the construction period and demobilization at the close of the construction period. Mobilization and demobilization shall be paid only once. The price entered for this item shall be consistent with the costs involved but shall not, in any event, exceed 10 percent of the Tender Price.
- 23.2 If the Tenderer has entered against this item in his tender a price in excess of 10 percent of the tender price, the Owner shall, in preparing Contract Documents based upon the tender, reduce the price for the said item to an amount not exceeding 10 percent of the Tender Price and shall add the amount of the reduction to other items in the Lump Sum breakdown as he deems to be fair and reasonable so the Tender Price shall not be affected.
- 23.3 Sixty percent of the price for mobilization and demobilization item shall be considered as relating to mobilization and the balance to demobilization and final clean up.
- 23.4 The payment for mobilization shall be included in the first payment certificate issued for the Contract subject to the Owner being satisfied that total mobilization has been performed. Otherwise, it shall be paid in part over a number of payments until totally performed.
- 23.5 The payment for demobilization shall become due following total performance of the Work and subject to the Owner being satisfied that full demobilization and clean-up has been performed. The Owner may, in his discretion, allow part payment for demobilization before total demobilization has been effected.

23.6 Project staging shall be at the discretion of the Contractor and to the approval of the Contract Administrator. No open excavations shall be left over the winter.

#### **24.0 PROVISIONAL ITEMS**

24.1 Items identified on the tender form as provisional or optional items may be awarded by the Owner at his sole discretion.

24.2 Work to be performed under the provisional item only with the approval of the Contractor Administrator. Work shall be performed in accordance with the OPS specifications and these contract documents and as directed by the Contract Administrator.

24.3 The tendered unit prices for such work will constitute full payment for these items.

#### **25.0 CONTINGENCY ALLOWANCE**

25.1 Contingency Allowances have been included in the Tender Forms.

#### **26.0 PRICES**

26.1 Each Bidder shall state a price in Canadian funds for each item of Work identified on the Schedule of Tender Price.

26.2 Goods and Services Tax and Company registration numbers should be clearly identified on all invoices and/or requests for payment. The amount of the goods and services tax shall be clearly identified.

#### **27.0 HARMONIZED SALES TAX**

27.1 The tendered unit bid prices shall not include the Harmonized Sales Tax (HST). The HST shall be shown separately on the Tender Form and on invoices submitted by the Contractor.

#### **28.0 MATERIAL TESTING**

28.1 Compaction and sample testing to be done by third party consultant. Unless otherwise noted, the Contract Administrator will select and the Owner to incur cost for the services of a testing agency or laboratory for initial tests that are required but not specified, other than tests required by by-laws, statutes and regulations applicable to the Work. Payment shall be made for under the contract "Material Testing" Contingency allowance in the tender form and to be paid direct by the Township of Nipigon.

#### **29.0 ACCESS TO RESIDENCES AND BUSINESSES**

29.1 The successful contractor will be required to maintain pedestrian access to all residence and businesses in the work area

### **30.0 ADDRESS OF BIDDER**

30.1 Each Bidder shall insert in the Tender Form an address to which communications can be mailed.

### **31.0 CORRECTIONS TO INCORRECT TENDER PRICING CLAUSE**

- 31.1 Tenders that contain prices which appear to be so unbalanced as likely to adversely affect the interest of the owner may be rejected.
- 31.2 Wherever the amount tendered for an item does not agree with the extension of the tender quantity and the tendered unit price, the unit price shall govern and the amount and the Total Tender Price shall be corrected accordingly.
- 31.3 Mathematical discrepancies will be corrected by the Owner by appropriate means to arrive at the correct Total Tender Price. Where an error has been made in transferring an amount from one part of the tender to another, the amount shown before transfer shall, subject to any corrections as provided for above, be taken to be correct and the amount shown after transfer and the Total Tender Price shall be corrected accordingly.

### **32.0 APPROVALS**

- 32.1 The owner reserves the right to approve or not approve all works covered under this contract.
- 32.2 The owner reserves the right to retender the contract in its entirety.

**TENDER FOR THE CONSTRUCTION OF**

**Nipigon Memorial District Hospital Sewer Realignment  
TENDER No. ToN-2026-001**

**1.1 TENDER PRICE**

Tender By:

Contractor

Address

Date

hereinafter called the "Tenderer"

To: **Corporation of the Township of Nipigon**

**52 Front Street Box 160  
Nipigon, Ontario P0T 2J0**

Hereinafter called the "Owner"

1.1.1 (We), the undersigned, having fully examined the locality and Place of the Work, having fully investigated the conditions of the Work, having read and understood the Contract Documents (comprised of the tendering information, supplementary general conditions, general conditions, specifications and drawings, including all supplements, addenda and revisions to same to the date of this tender) and having secured all of the information necessary to enable the submission of this tender, hereby agree and offer to perform the totality of the Work described in the Contract Documents, in accordance with the Contract Documents, for the total Tender Price (including H.S.T.) of:

(\$.....)

**1.2 PROVISIONAL AND CONTINGENCIES ITEMS/ALLOWANCES**

1.2.1 The Tenderer agrees that the Tender Price includes the provisional and contingency sum as calculated and shown on section 1.8 of the "Schedule of Tender Prices" and that no part of this sum shall be expended without the written direction of the Contract Administrator, and any part not so expended shall be deducted from the Contract Price.

**1.3 QUANTITIES**

1.3.1 The Tender Price is compiled from the Schedule of Prices included hereinafter. The Tenderer acknowledges that the quantities in the schedule are approximate, and that the final valuation will be made on the basis of actual quantities measured during and on completion of the Work at the unit prices in the schedule.

**1.4 ADDITIONS AND DEDUCTIONS**

1.4.1 The Tenderer agrees that, if this tender is accepted by the Owner:

- i) He will carry out any additional or extra work (including the supplying of any additional Products pertaining thereto) or will delete any work as may be required by the Contract Administrator in accordance with the Contract; and,
- ii) the carrying out of any work referred to in paragraph (i) above or the issuance by the Contract Administrator of a Contract Change Order relating to such work or the acceptance by the Tenderer of such Contract Change Order shall not, except as expressly stated in such Contract Change Order, waive, affect or vary any of the terms of the Contract or of an Contract Change Order previously issued by the Contract Administrator or any of the rights of the Owner or of the Contract Administrator under the Contract.

1.4.2 The Tenderer agrees that, if this tender is accepted by the Owner the prices applicable to work referred to in paragraph 1.3.1 above shall be determined as follows:

- i) The Schedule of Tender Prices shall apply where applicable;
- ii) If the above Schedule is inapplicable the prices shall be determined in accordance with the General Conditions as amended by the Supplementary General Conditions.

**1.5 ADDENDA**

1.5.1 The Tenderer acknowledges receipt of Addenda ..... to ..... inclusive, and the tender price includes for the provisions set out in such Addenda.

**1.6 OBLIGATION**

1.6.1 The Commencement

- (i) The Contractor shall not commence any Work until he/she is in receipt of an award letter from the Award Authority authorizing the commencement of the Work and to work continuously to complete all work as specified in the contract as follows:
- (ii) the Contract Administrator has confirmed receipt and approval of:
  - (a) evidence of the workers compensation coverage;
  - (b) the twenty-four (24) hour emergency response phone number
  - (c) the Safe Work Plan;
  - (d) evidence of the insurance specified;
  - (e) the contract security specified;
  - (f) the subcontractor list;
  - (g) the detailed work schedule.
  - (h) the Contractor has attended a pre-construction meeting with the Contract Administrator, or the Contract Administrator

- (iii) Execute a formal Contract and furnish any required performance and/or labour and material payment bonds within seven (7) days notification that this Tender has been accepted

#### 1.6.2 Working Days

- (i) The Contract Administrator will determine daily if a Working Day has elapsed and will record his/her assessment. On a weekly basis the Contract Administrator will provide the Contractor with a record of the Working Days assessed for the preceding week. The Contractor shall sign each report signifying that he/she agrees with the Contract Administrator's determination of the Working Days assessed for the report period.
- (ii) Work done to restore the Site to a condition suitable for Work, shall not be considered "work" as defined in the definition of a Working Day.
- (iii) When the Work includes two or more major types of Work that can be performed under different atmospheric conditions, the Contract Administrator shall consider all major types of Work in determining whether the Contractor was able to work in assessing Working Days.

#### 1.6.3 Substantial Performance

- (i) The Contractor shall achieve Substantial Performance no later than October 23, 2026
- (ii) When the Contractor considers the Work to be substantially performed, the Contractor shall arrange, attend and assist in the inspection of the Work with the Contract Administrator for purposes of verifying Substantial Performance. Any defects or deficiencies in the Work noted during that inspection shall be remedied by the Contractor at the earliest possible instance to the entire satisfaction of the Owner and the Contract Administrator notified so that the Work can be re-inspected.
- (iii) The date on which the Work has been certified by the Contract Administrator as being substantially performed to the requirements of the Contract through the issue of a certificate of Substantial Performance is the date on which Substantial Performance has been achieved.

#### 1.6.4 Total Performance

- (i) The Contractor shall achieve Total Performance no later than October 31, 2026
- (ii) When the Contractor or the Contract Administrator considers the Work to be totally performed, the Contractor shall arrange, attend and assist in the inspection of the Work with the Contract Administrator for purposes of verifying Total Performance. Any defects or deficiencies in the Work noted during that inspection shall be remedied by the Contractor at the earliest possible instance and the Contract Administrator notified so that the Work can be re-inspected.
- (iii) The date on which the Work has been certified by the Contract Administrator as being totally performed to the requirements of the Contract through the issue of a certificate of Total Performance is the date on which Total Performance has been achieved.

#### 1.6.5 Liquidated Damages

- (i) If the Contractor fails to achieve Substantial Performance or Total Performance in accordance with the Contract by the days fixed herein for same, the Contractor shall pay the Township the following amounts per Working Day for each and every Working Day following the days fixed herein for same during which such failure continues:

- a. Substantial Performance – One Thousand Five Hundred dollars (**\$ 1,500.00**);
  - b. Total Performance – Seven Hundred Fifty dollars (**\$750.00**).
- (ii) The Township may reduce any payment to the Contractor by the amount of any liquidated damages assessed.
- (iii) If the Contractor fails to achieve Substantial Performance or Total Performance in accordance with the Contract by the days fixed herein for same, they will compromise their ability to obtain future work with the Township of Nipigon

**1.7. TENDER ITEM REFERENCES AND DELETIONS**

- 1.7.1 Where in the Form of Tender under the column headed OPSS, a number is shown, such number shall be taken to mean and refer to the Ontario Provincial Standard Specifications (OPSS)
- 1.7.2 Where in the Form of Tender under the column headed Spec. Ref a number is shown, such number be taken to mean and refer to the Specifications in this Tender document.
- 1.7.3 The Owner reserves the right to delete all or any portion of the work prior to Contract award without affecting the remaining Contract prices, without penalty or recourse.

**Nipigon Hospital Sewer Servicing  
Schedule of Prices**

	DESCRIPTION	UNIT	APPROX. QUANTITY	UNIT PRICE	CONSTRUCTION ESTIMATE
<b>A General</b>					
A.1	Mobilization and Demobilization	l.s.	1		
A.2	Insurance & Bonding	l.s.	1		
A.3	General Site Works (site survey and layout, construction signage, locates, traffic control, temporary enclosures, dust control, etc.)	l.s.	1		
	<b>Subtotal</b>				<b>\$</b>
<b>B Demolition</b>					
B.1	Remove existing sanitary sewer	l.m.	80		
B.2	Remove existing sanitary manholes	ea.	3		
B.3	Decommission and remove existing SPS	l.s.	1		
	<b>Subtotal</b>				<b>\$</b>
<b>C Civil Works</b>					
C.1	Supply and install new 250 mm sanitary sewer	l.m.	375		
C.2	Supply and install new 150 mm sanitary sewer service laterals c/w cleanout	ea.	3		
C.3	Supply and install 50 mm rigid pipe insulation	m <sup>2</sup>	150		
C.4	Supply and install new sanitary sewer manhole (OPSD 701.010)	ea.	5		
C.5	Restoration of disturbed areas to match existing condition (asphalting, granular road sub-base, granular road base, concrete curbing, sodding, etc.)	l.s.	1		
C.6	CCTV Sewer Inspection	l.s.	1		
	<b>Subtotal</b>				<b>\$</b>
<b>D Provisional</b>					
D.1	Contingency Allowance	l.s.	1	\$ 50,000.00	\$ 50,000.00
D.2	Additional Excavation	m <sup>3</sup>	30		
D.3	Supply and install additional 150 mm thick granular 'A' road base	t	100		
D.4	Supply and install additional 400 mm thick granular 'B' Type 1 Road sub-base	t	100		
D.5	Supply and install additional HL-40 Rigid Pipe Insulation (50 mm thick)	m <sup>2</sup>	50		
	<b>Subtotal</b>				<b>\$</b>
<b>SUMMARY</b>					
<b>Section A - General</b>					<b>\$</b>
<b>Section B - Demolition</b>					<b>\$</b>
<b>Section C - Civil Works</b>					<b>\$</b>
<b>TOTAL TENDER PRICE EXCLUDING PROVISIONAL (Sections A to C)</b>					<b>\$</b>
<b>Section D - Provisional</b>					<b>\$</b>
<b>TOTAL TENDER PRICE INCLUDING PROVISIONAL (Before H.S.T.)</b>					<b>\$</b>
<b>H.S.T.</b>					<b>\$</b>
<b>TOTAL TENDER PRICE INCLUDING PROVISIONAL &amp; H.S.T.</b>					<b>\$</b>

Note: All work shown on drawings shall be included in the unit prices. If a specific item does not exist for a work item then that work is considered incidental to other items listed on the Tender.

**1.9 DECLARATIONS OF TENDERER**

- 1.9.1 The Tenderer declares that no person, firm or corporation other than the Tenderer has any interest in this tender or in the proposed Contract for which this tender is made.
- 1.9.2 The Tenderer declares that this tender is made without any connection, comparison of figures or arrangement with, or knowledge of, any other corporation, firm or person making a tender for the same Work and is in all respects fair and without collusion or fraud.

**1.10 CONDITIONS OF TENDER**

- 1.10.1 This tender is irrevocable from the official closing time and is unconditionally open for acceptance for 60 days after the official closing time, whether any other tender has been previously accepted or not.

**1.11 DISCLAIMER**

- 1.11.1 The Tenderer agrees and acknowledges there is no representation, warranty, collateral agreement or condition, whether direct or collateral, or expressed or implied, which induced the Tenderer to submit this tender, or on which reliance is placed by the Tenderer, or which affects this tender.

**1.12 SIGNING OF TENDERS**

Dated at \_\_\_\_\_ this  
\_\_\_\_\_ day of \_\_\_\_\_, 2026.

\_\_\_\_\_  
Signature of Tenderer, Title

\_\_\_\_\_  
Signature of Witness

\_\_\_\_\_  
Signature of Tenderer, Title

\_\_\_\_\_  
Signature of Witness

**NOTE: In the case of a tender submitted by a Corporation, the signatory or signatories warrant as follows:**

**“I/We have authority to bind the Corporation.”**

**If the tender is submitted by an individual or partnership, it is deemed to be given under seal.**

ACCEPTED BY THE CORPORATION OF THE TOWNSHIP OF NIPIGON THIS \_\_\_\_\_ DAY

OF \_\_\_\_\_ 2026.

\_\_\_\_\_  
Signature

\_\_\_\_\_  
Name and Title

\_\_\_\_\_  
Signature

\_\_\_\_\_  
Witness

\_\_\_\_\_  
Name and Title

\_\_\_\_\_  
Name and Title

## Undertaking to Comply

Name of Contractor \_\_\_\_\_

Description of Contract \_\_\_\_\_

Name of Authorized Representative  
of the Contractor \_\_\_\_\_

I / We hereby undertake:

- (a) to comply with all applicable health and safety and environmental legislation in the performance of this contract;
- (b) to maintain a safe and healthy work environment during the performance of this contract.
- (c) that a Joint Health & Safety Committee or the appointment of a Health & Safety Representative is undertaken as applies to the Occupational Health & Safety Act.

I / We hereby agree:

- (a) that compliance with all health & safety and environmental legislation is a condition of the contract and that noncompliance with same may, at the Corporation of the Township of Nipigon's (hereinafter the Corporation or the City) discretion, lead to the termination of this Contract;
- (b) to permit the Corporation to audit my/our health and safety and environmental records during the term of the contract and upon its conclusion and to co-operate fully with any such audit(s).

I / We understand that contractor safety deficiencies will be addressed by the Corporation in the following progressive steps:

- (a) The infraction(s) will be identified to the Contractor (site supervisor) verbally and documented as such.
- (b) The Contractor's Head Office will be contacted about the infraction(s), orally and in writing.
- (c) if the infraction(s) remain, a written notice will be presented to the Contractor's Head office and a fine of a minimum of \$100.00 up to a maximum of \$1,000.00 per infraction will be deducted from the payment due to the Contractor.
- (d) if required by law to immediately report the infraction(s), the Corporation shall report the infraction to the appropriate Ministry(ies).
- (e) If not required by law to report the infraction(s), the Corporation may report the infraction to appropriate Ministry(ies)
- (f) The Corporation may, in the Corporation's discretion, suspend or terminate the contract and/or withhold payment by the Corporation.

I / We acknowledge and agree:

- (a) depending upon the nature and/or seriousness of the deficiency, the Corporation reserves the right to bypass any or all of the steps described in sections (a) through (f) above.

## Undertaking to Comply

I / We have the authority to bind the Contractor,

\_\_\_\_\_ (DATE)

SIGNED, SEALED AND DELIVERED

in the presence of

Per:

\_\_\_\_\_  
WITNESS

\_\_\_\_\_  
NAME OF CONTRACTOR

\_\_\_\_\_  
SIGNATURE

Name of Administrator of Contractors Health & Safety Program:

\_\_\_\_\_

**NOTE:** Failure of the bidder to complete FORM may be grounds for rejecting the Tender.

**BID BOND**

**BID BOND AND AGREEMENT TO BOND (PAGE 1 OF 2)**

KNOW ALL MEN BY THESE PRESENTS THAT

\_\_\_\_\_ (hereinafter called the "Principal") and

\_\_\_\_\_ (hereinafter called the "Surety"), are held and firmly bound unto The Corporation of the Township of Nipigon (hereinafter called the "Obligee") in the sum of ten percent (10%) of the Total Bid Price set out in the Tender Submission hereinafter described, for the payment of which sum the Principal and Surety bind themselves, their heirs, executors, administrators, successors and assigns, jointly and severally, firmly by these presents.

WHEREAS the Principal has submitted a Bid to the Obligee dated the

\_\_\_\_\_ day of \_\_\_\_\_, 20\_\_\_\_\_ for

**TOWNSHIP OF NIPIGON  
NIPIGON MEMORIAL DISTRICT HOSPITAL SEWER REALIGNMENT**  
as more fully set out in the Tender Package.

NOW THEREFORE the condition of this obligation is such that if the Bid of the Principal is not accepted, or if said Bid is accepted and the Principal, in accordance with the terms of the Bid, enters into a Contract with the said Obligee and furnishes the required performance security for guaranteeing the faithful performance of the Contract, this obligation shall be void, but otherwise shall remain in full force and effect.

IN WITNESS WHEREOF the Principal and Surety have signed and sealed this bond the

\_\_\_\_\_ day of \_\_\_\_\_, 20\_\_\_\_\_ .

SIGNED AND SEALED  
in the presence of:

\_\_\_\_\_  
(Witness)

\_\_\_\_\_  
(Name of Principal)

Per: \_\_\_\_\_ (Seal)

Per: \_\_\_\_\_

\_\_\_\_\_  
(Name of Surety)

By: \_\_\_\_\_ (Seal)

(Attorney-in-Fact)

# BID BOND

## BID BOND AND AGREEMENT TO BOND (PAGE 2 OF 2)

### AGREEMENT TO BOND

(to be attached to and to form part of Bid Bond)

The Surety on the attached Bid Bond hereby undertakes and agrees with THE TOWNSHIP OF NIPIGON to become bound as Surety for the Principal,

\_\_\_\_\_ of  
(Name of Bidder)

\_\_\_\_\_  
(Place)

the Bidder to you on \_\_\_\_\_, 20\_\_\_\_ for

### TOWNSHIP OF NIPIGON NIPIGON MEMORIAL DISTRICT HOSPITAL SEWER REALIGNMENT

in an amount equal to one hundred percent (100%) of the Contract Price for the due and proper performance of the Work shown and described in the Tender Package, if our Principal's Bid is accepted by you, such Performance and Labour and Material Bonds to be maintained and continue in full force and effect until the expiration of the warranty period. The Performance Bond and Labour and Material Bonds shall be in the form specified in the Tender Package.

It is a condition that this Agreement to Bond shall become null and void if the Performance Bond Labour and Material Bonds mentioned above are not required from our Principal within sixty (60) Calendar Days following the Submission Deadline.

**AND IT IS HEREBY DECLARED AND AGREED** that the Surety shall be liable as Principal, and that nothing of any kind or matter whatsoever that will not discharge the Principal shall operate as a discharge or release of liability of the Surety, any law or usage relating to the liability of Sureties to the contrary notwithstanding.

SIGNED AND SEALED this \_\_\_\_\_ day of \_\_\_\_\_, 20\_\_\_\_.

\_\_\_\_\_  
(Name of Surety)

By: \_\_\_\_\_ (Seal)  
(Attorney-in-Fact)

**Note:** Failure of the bidder to complete Form may be grounds for rejecting the Tender.

**SECTION 00310 - AGREEMENT**

The Township of Nipigon

Contract No. ToN-2026-001  
Nipigon Memorial District Hospital Sewer  
Realignment

**AGREEMENT**

This Agreement made in triplicate this \_\_\_\_ day of \_\_\_\_\_, 20\_\_, between  
\_\_\_\_\_ hereinafter called "The Contractor"

AND

\_\_\_\_\_ hereinafter called "The Owner"

WITNESSETH that The Contractor agrees with The Owner to perform all the work in accordance with the Contract Documents referred to in the tender of The Contractor dated the \_\_\_\_ day of \_\_\_\_\_ (which shall be deemed to form part of this Contract) to the satisfaction of the Engineer for the total contract price of \$\_\_\_\_\_ which Contract Documents are attached hereto and which are hereby expressly made part of this Contract.

The Owner hereby agrees with The Contractor that, in consideration of the work being performed by The Contractor as specified, The Owner shall pay The Contractor for said work in accordance with the provisions set out in the attached Contract Documents.

Time shall be deemed the essence of this Contract.

IN WITNESSD WHEREOF the parties hereto have executed this Agreement under their respective corporate seals and by the hands of their proper officers thereunto duly authorized.

SIGNED, SEALED AND DELIVERED  
In the presence of:

OWNER

\_\_\_\_\_  
Name

\_\_\_\_\_  
Signed

\_\_\_\_\_  
Name and Title

\_\_\_\_\_  
Witness

\_\_\_\_\_  
Signed

\_\_\_\_\_  
Name and Title

\_\_\_\_\_  
Name and Title

CONTRACTOR

\_\_\_\_\_  
Name

\_\_\_\_\_  
Signed

\_\_\_\_\_  
Name and Title

\_\_\_\_\_  
Witness

\_\_\_\_\_  
Signed

\_\_\_\_\_  
Name and Title

\_\_\_\_\_  
Name and Title

**Note: In the case of a tender submitted by a Corporation, the signatory or signatories warrant as follows:**

**“I/We have the authority to bind the Corporation”**

**If the tender is submitted by an individual or partnership, it is deemed to be given under seal.**

## **TENDERING STATEMENTS**

<b>Form</b>	<b>Title</b>
A	Sub-Contractors and Suppliers.
B	Alternatives
C	Methodology
D	Schedule
E	Tenderer's Experience in Similar Work
F	Tenderer's Senior Supervisory Staff
G	Tenderer's Construction Equipment
H	Source of Materials
I	Fairness is a Two-Way Street
J	Identification Agreement

**FORM A: SUBCONTRACTORS AND SUPPLIERS**

Quote the name and address of each proposed subcontractor or supplier. After the Tender has been accepted by the Owner, substitutions of subcontractors and suppliers named will not be allowed without written approval of the Contract Administrator. Use a separate sheet if the space below is not sufficient. The list is also intended for manufacturers and fabricators.

**Subtrade Section or  
Equipment**

**Name and Address of Subcontractor**

Excavation, Grading

\_\_\_\_\_

Sewer

\_\_\_\_\_

Curb & Gutters

\_\_\_\_\_

Asphalt Paving

\_\_\_\_\_

Any Other Subcontractor not  
Identified Above

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

**NOTE:** Failure of the bidder to complete FORM "A" may be grounds for rejecting the Tender.

\_\_\_\_\_  
Signature of Witness

\_\_\_\_\_  
Signature of Tenderer (Seal)



**FORM C: METHODOLOGY**

Indicate proposed method of pipe installation (horizontal directional drilling, open cut, or combination)

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**FORM D: SCHEDULE**

Indicate proposed construction schedule

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**FORM E: TENDERER'S EXPERIENCE IN SIMILAR WORK**

<u>Year</u>	<u>Description of Contact</u>	<u>Owner's Name</u>	<u>Value</u>
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**FORM H: SOURCES OF MATERIALS**

<u>Material</u>	<u>Supplier</u>	<u>Supplier's Pit/Plant Location</u>
HL4 Asphalt	_____	_____
Granular "A"	_____	_____
Granular "B", Type I	_____	_____
Granular "B", Type II	_____	_____
Concrete	_____	_____

\_\_\_\_\_  
Name of Bidder

**Note:** Failure of the bidder to complete all required Forms may be grounds for rejecting the Tender.

**FORM I: FAIRNESS IS A TWO-WAY STREET**

In this Article X.0,

- (a) "Construction" includes all work in or about:
- (i) constructing, altering, decorating, repairing, demolishing, erecting or remodeling the whole or any part of a building or structure;
  - (ii) laying pipe and conduit above or below ground level;
  - (iii) excavating, tunneling, fencing, grading, paving, land clearing and bridging;
  - (iv) building a highway, as defined in section I of the Highway Traffic Act;
  - (v) carrying out other activities prescribed by the Minister of Labour under the Fairness is a Two-Way Street Act (Construction Labour Mobility), 1999 for inclusion in the definition of Construction; and
  - (vi) providing consulting services, including architectural or engineering services, with respect to the matters set out in clauses (i) to (v).
- (b) "Contractor" means a person that enters into a contract for Construction and includes any subcontractor;
- (c) "controlled" has the same meaning as in subsection 1 (5) of the Business Corporations Act;
- (d) "Designated Jurisdiction" means a province or territory of Canada prescribed by the Lieutenant Governor in Council as a designated jurisdiction under the Fairness is a Two-Way Street Act (Construction Labour Mobility), 1999.
- (e) "person who is resident in a Designated Jurisdiction" means:
- (i) in the case of an individual or a sole proprietor, a person who is ordinarily resident in that jurisdiction;
  - (ii) in the case of a corporation,
    - (A) a person whose head office or registered office is located in that jurisdiction; or
    - (B) a person controlled directly or indirectly by a person described in subclause (A);
  - (iii) in the case of a partnership, a partnership that includes at least one partner who is resident in that jurisdiction under clause (i) or (ii).

No ministries, municipalities, agencies/boards or commissions prescribed by the Minister of Labour under the Fairness is a Two-Way Street Act (Construction Labour Mobility), 1999, shall award a Construction contract to a Contractor who is a person resident in a Designated Jurisdiction. Such a person is not eligible and will be disqualified from this tender.

All Bidders are required to provide the following information in respect of themselves and any sub-contractors:

- (a) in the case of an individual or sole proprietor, whether he/she is ordinarily resident within a Designated Jurisdiction;
- (b) in the case of a corporation, whether the corporation's head office or registered office(s) is/are in a Designated Jurisdiction or whether any person who controls the corporation, either directly or indirectly, is a person who is ordinarily resident in a Designated Jurisdiction;
- (c) in the case of a partnership, whether the partnership includes one partner who is resident in a Designated Jurisdiction under clause (a) or (b) above, and
- (d) whether any exemptions prescribed under the Act are applicable.

In any Construction contract awarded under this tender, if any, the Contractor will be required to:

- (a) represent and warrant that neither the Contractor nor any sub-contractors are persons who are resident in a Designated Jurisdiction;
- (b) acknowledge that any sub-contracts not identified in the bid following the award of the contract will be subject to the approval of the Township of Nipigon.
- (c) acknowledge that any material misrepresentation or breach of the representation and warranty in clause (a) will be grounds for termination of the contract.

**FAIRNESS IS A TWO-WAY STREET**

Italicized terms have the same meaning as in Article X.0 of the tender document.

I/we certify that neither the Bidder nor any proposed sub-contractor is a person who is resident in a Designated Jurisdiction in accordance with the criteria set out in Article X.0, in particular section 5.3.

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Authorized Signing Officer

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Date

**FORM J: INDEMNIFICATION AGREEMENT**

**CORPORATION OF THE TOWNSHIP OF NIPIGON  
INDEMNIFICATION AGREEMENT**

**In consideration of the Corporation of the Township of Nipigon (Township) agreeing to contract with the undersigned**

\_\_\_\_\_  
**(name of contractor)**

hereby agrees and covenants that it/he/she shall indemnify and save harmless the Township and all persons for whom it is in law responsible, from any and all claims, action suits, damages or costs arising or alleged to arise from the action, default or negligence of the undersigned, its agents or servants in its/his/her performing work or supplying materials on Township property, or elsewhere at the Township's request.

This indemnity shall include all administrative costs, adjusting costs and legal costs on a substantial indemnity basis.

This indemnity shall be limited in respect to work performed or services supplied between \_\_\_\_\_ and \_\_\_\_\_.

Dated \_\_\_\_\_, 20\_\_\_\_\_.

\_\_\_\_\_  
(name of contractor)

Per:

\_\_\_\_\_  
(signature)

**SECTION 00800 - OPS**  
**SUPPLEMENTAL GENERAL CONDITIONS**

The Ontario Provincial Standards [OPS] General Conditions of Contract, November 2019, are modified as follows:

**SECTION GC1 - INTERPRETATION**

**GC1.04**      Definitions

The definitions of “Addenda”, “Controlling Operation”, “Engineer” and “Subcontractor” in Subsection GC1.04 are deleted and replaced by the following:

“Addenda means an addition to or a change in the Contract Documents that is issued by the Contract Administrator prior to the tender closing.

“Controlling Operation” means any component of the Work, as determined by the Contract Administrator, which, if delayed, will delay the completion of the Work.

“Subcontractor” means a person, firm or corporation undertaking the execution of a part of the Work by virtue of an agreement with the Contractor which has been approved by the Owner.

“Engineer” means the Owner’s representative solely in charge of this Contract.

Subsection GC1.04 is amended by the addition of the following definitions:

“Corporation” means the same as the “Owner”.

“Ministry” means the Ministry of Transportation of Ontario. Any reference to the Ministry or the Ministry of Transportation and Communications found in this Contract shall mean the “Owner”.

“Project Specifications” means Ontario Provincial Standard Specifications, and Special Provisions. The OPS specification in affect when the call for tenders for this contract were advertised shall apply for the duration of the contract.

“Provide” means supply all labour, materials, equipment, handling and cartage required to complete installation of the item concerned.

**GC1.06**      Final Acceptance

Subsection GC1.06 is amended by the addition of the following paragraph:

- 02) In addition to all other prior requirements Final Acceptance will not occur until the Work has passed all inspections and testing requirements.

Section GC1 is amended by adding a new Subsection GC1.08, as follows;

GC1.08      Substantial Performance

- 01) The Work is substantially performed,
- a) when the Work or a substantial part thereof has passed inspection and testing and is ready for use or is being used for the intended purposes; and is ready for use; and
  - b) when the Work to be performed under the Contract is capable of completion or, where there is a known defect, the cost of correction, is not more than
    - i. 3% of the first \$1,000,000 of the Contract price,
    - ii. 2% of the next 1,000,000 of the Contract price, and
    - iii. 1% of the balance of the Contract price.
  - c) when the final and approved Operation and Maintenance (O&M) Manuals (where applicable) have been received in acceptable form to the Contract Administrator; and,
  - d) when the final and approved As-Built drawings have been received in acceptable form by the Contract Administrator; and,
  - e) when the Contract Administrator has received a copy of the video tape and report for all closed-circuit sewer inspections (CCTV) completed for the new sewer mains
  - f) when training, training videos (where applicable), and forms (where applicable) have been completed to the satisfaction of the Owner for each type of equipment and system; and,
  - g) when the Certificates of Equipment Delivery, Readiness to Install, Satisfactory Installation, Equipment Satisfactory Performance, and Satisfactory Process Performance (where applicable) have been fully completed and submitted to the Contract Administrator; and,
  - h) when all of the salvaged parts have been delivered to the Owner;
- 02) For the purposes of this Contract, where the Work or a substantial part thereof is ready for use or is being used for the purposes intended and the remainder of the Work cannot be completed expeditiously for reasons beyond the control of the Contractor or, where the Owner and the Contractor agree not to complete the Work expeditiously, the price of the services or materials remaining to be supplied and required to complete the Work shall be deducted from the Contract price in determining Substantial Performance.

**SECTION GC2 – CONTRACT DOCUMENTS**

GC2.01      Reliance on Contract Documents

Paragraph 01)(a) of Subsection GC2.01 is deleted and replaced by the following:

- 01)(a) The Contractor shall assume full responsibility for obtaining the exact locations of underground utilities. The Contract Administrator does not warrant the correctness of completeness of the Plans with respect to existing public utilities and services whether underground or on the surface. The Contractor shall have no claim for additional compensation, if, in uncovering and carrying out the work, it should find that the actual location of existing utilities does not correspond with the locations shown on the Plans.

**SECTION GC3 - ADMINISTRATION OF THE CONTRACT**

GC3.05      Layout Information

Paragraphs 02) and 03) of Subsection GC3.05 are deleted.

GC3.07      Delays

Paragraph 01) of Subsection GC3.07 is deleted and replaced by the following:

- 01)      If the Contractor is delayed in the performance of the Work by:
- a) war, blockades, and civil commotions;
  - b) errors in the Contract Documents;
  - c) an act or omission of the Owner or Contract Administrator, or anyone employed or engaged by them directly or indirectly, contrary to the provisions of the Contract Documents;
  - d) a stop work order issued by a court or public authority, provided that such order was not issued as the result of an act or omission of the Contractor or anyone employed or engaged by the Contractor directly or indirectly;
  - e) the Contract Administrator giving notice under section GC 7.0, Suspension of Work;
  - f) Abnormal Weather; or
  - g) archaeological finds, in accordance with subsection GC 3.15, Archaeological Finds,

then the Contractor shall **not** be reimbursed by the Owner for any costs incurred by the Contractor as the result of such delay. Any delay in the performance of the work shall be considered for the extension of Contract Time only.

In the case of an application for an extension due to abnormal inclement weather, the Contractor shall, with the Contractor's application, submit evidence from Environment Canada in support to such application. Extension of Contract Time

will be granted in accordance with Subsection GC3.06, Extension of Contract Time.

Subsection GC3.07 is amended by the addition of the following paragraph:

- 05) The Contractor shall not have any claims for compensation or damages against the Corporation for any stoppage or delay from any cause whatever, whether such stoppage or delay shall be caused by or result from the action or neglect of any other contractor, or shall be caused by or result from the work being out of the hands of the Contractor, or any other contractor, by the Corporation under the provisions of this Contract made with such other contractor.

### GC3.08 Assignment of Contract

Subsection GC3.08 is amended by the addition of the following paragraph:

- 02) No assignment of this contract in whole or in part shall be valid unless it shall contain a provision that the funds to be paid to the assignee under the assignment are subject to the prior lien for services rendered or material supplied for the performance of the work called for in the Contract in favour of persons, firms, or corporations rendering such services or supplying such materials.

### GC3.10.01 Changes in the Work

Paragraph 03) of Clause GC3.10.01 is deleted and replaced by the following:

- 03) The valuation of additions to and deductions from the Contract shall be made as follows:
- a) The prices in the Schedule of Prices or Provisional Items shall apply where appropriate as determined by the Contract Administrator.
  - b) If the prices in Clause (a) are not appropriate, valuation will be made by one of the following methods:
    - i] Contract Administrator may ask the Contractor for a Quotation for the proposed work.
    - ii] If the Quotation referred to in [i] above is not accepted by the Contract Administrator, the actual cost of the work will be determined on a Time and Material Basis in accordance with the OPS General Conditions, Supplementary General Conditions, Project Specifications and Special Provisions.
  - h) Whenever extra work is being performed under Subsection (b) (ii) above, the Contractor shall submit daily reports in writing, to the Contract Administrator, indicating the total chargeable costs incurred, for the day.

Valuation of the extra work being so performed will be made by the Contract Administrator on the basis of approved daily reports.

Section GC3 is amended by adding a new Subsection GC3.16, as follows;

GC3.16      Township of Nipigon Policy on Contractor Safety

01)      Policy Statement:

All contractors or land developers working on municipal projects are required to work in compliance to The Ontario Occupational Health and Safety Act and Regulations. All contractors working on city streets and roads will comply with the Ontario Traffic Manual – Book 7.

Failure to comply to will be considered a breach of contract and may result in work stoppage, Ministry of Labour involvement, or in termination of the contract.

02)      Contractor safety deficiencies will be addressed by the Township in the following progressive steps:

- a)      The problem will be identified to the contractor (site supervisor).
- b)      The contractor's head office will be contacted about the problem, orally and later in writing.
- c)      If the problem remains unresolved then the Ministry of Labour will be notified of the violation and if necessary, the work will be stopped until the problem is corrected.
- i)      The contract may be terminated by the Township.

**SECTION GC4 - OWNER'S RESPONSIBILITIES AND RIGHTS**

GC4.02      Approvals & Permits

Paragraph 02) of Subsection GC4.02 is deleted and replaced with the following:

- 02)      The Contractor shall obtain and pay for all permits, licences and certificates solely required for project approval.

GC4.04      Construction Affecting Railway Property

Paragraph 01) of Subsection GC4.04 is deleted and replaced by the following:

- 01)      When construction affects railway property, the Owner will pay the costs of all flagging and other traffic control measures required and provided by the railway company within the Working area unless such costs are solely a function of the Contractor's chosen method of completing the work.

GC4.06 Contractors Right to Correct Default

Paragraphs 01), 02) and 02)(a) of Subsection GC4.06 are amended as follows:

- 01) change reference from five [5] to three [3] full working days.
- 02) change reference from five [5] to three [3] full working days.
- 02)(a) change reference from five [5] to three [3] full working days.

Section GC4 is amended by adding a new Subsection GC4.14, as follows;

GC4.14 Personnel Employed by Contractor

- 01) The Contractor shall not employ or hire any Township employees who are employed in the Infrastructure & Operations Department.

**SECTION GC6 - INSURANCE, PROTECTION AND DAMAGE**

GC6.01 Protection of Work, Persons and Property

Subsection GC6.01 is amended by the addition of the following paragraph:

- 06) When carrying out excavation work, the Contractor may encounter such underground utilities as sewers, gas mains, telephone cables, power cables, and watermains. The Contractor shall be fully responsible for any breakage or damage to such utilities, and the Contractor shall pay the full cost of repairing such damage and making good any losses or damages which are caused as a result of his operation in carrying out this Contract.

GC6.03.02 General Liability Insurance

Paragraphs 01) and 02), of Clause GC6.03.02 are deleted and replaced with the following:

- 01) The Contractor shall obtain and maintain Comprehensive General Liability Insurance against Bodily Injury and Property Damage claims with respect to all work to be performed under this contract. Such Insurance shall:
  - a) be in the joint names of the Contractor, the Corporation of the Township of Nipigon, KGS Group, Her Majesty the Queen in Right of Ontario, and all sub-contractors of either employed directly or indirectly in the work to be performed;
  - b) contain a Cross Liability Clause;
  - c) include coverage for:

- i] Completed Operations, which coverage shall be maintained continuously in force for a period of not less than 24 months from the date of the Certificate of Total Performance of the Work
- ii] Blanket Contractual Liability
- iii] Contingent Employers Liability
- iv] Non-owned Automobile Liability
- v] Broad Form Property Liability
- vi] Excavation

where applicable, include coverage for:

- i] Underpinning, shoring
  - ii] Demolition
  - iii] Building raising or moving
  - iv] Blasting or the Use of Explosives
  - v] Tunnelling
  - vi] Pile driving, caisson work
  - vii] Use of aircraft or watercraft, owned or non-owned
- e) contain a clause stating that such Insurance shall remain in force and not be amended, cancelled or allowed to lapse without 30 days prior written notice being given to each of the named insureds;
- f) be subject to a limit of not less than \$5,000,000.00 inclusive per occurrence for Bodily Injury, Death and Damage to Property, including loss of use thereof;
- 02) Prior to the commencement of any work under this Contract the Contractor shall file with the Township, to the attention of the Township Clerk, Certificates evidencing full compliance with the above clauses, in accordance with the prescribed Certificate which is located after the "Tender Form" in the Documents.

**GC6.03.03 Automobile Liability Insurance**

Paragraph 01) of Clause GC6.03.03 is deleted and replaced by the following:

- 01) The Contractor shall insure and maintain insurance against legal liability for Bodily Injury and Property Damage caused by automobiles owned or leased by the Contractor. Such insurance shall be subject to an inclusive limit of not less than \$5,000,000.00.

**GC6.03.06 Contractor's Equipment Insurance**

Clause GC6.03.06 is amended by the addition of the following paragraph:

- 02) If this Contract includes the construction of or alterations to a bridge, dam, culvert or building, the Contractor shall provide Property Insurance, to insure the Work against all risks including flood and earthquake.

Subsection GC6.03 is amended by adding a new Clause GC6.03.08, as follows;

**GC6.03.08**     **Insurance Claims**

- 01) It shall be the duty of the Contractor to fully comply with the terms and conditions of the Liability Insurance coverage, including, without limiting the generality of the foregoing, the requirement to promptly report claims to the Insurer.
- 02) The Contractor shall also promptly notify the Contract Administrator of all such claims in writing.
- 03) If a claim is settled, the Contractor shall thereupon provide the Contract Administrator with a copy of the Claimant's Release.
- 04) If a claim is rejected, the Contract Administrator shall be notified at the time of rejection.
- 05) The Contract Administrator shall be provided full information as to such claims at all times as the Contract Administrator may require and in any event should 30 days elapse after the claim has been received by the Contractor and the Contractor is not able to report settlement or rejection of the claim, the Contractor will provide a full report to the Contract Administrator as to the status of and steps being taken with respect to the claim.

**GC6.04**     **Bonding**

Paragraphs 01) and 02) of Subsection GC6.04 are deleted and replaced by the following:

- 01) The Contractor, together with a Surety Company approved by the Owner and authorized by law to carry on business in the Province, shall furnish a 50% Labour and Materials Payment Bond to the Owner using CCA Document(s) 22. The Bond shall remain in effect until 12 months after the date the Contract Administrator accepts the entire work.
- 02) The Contractor, together with a Surety Company, approved by the Owner and authorized by law to carry on business in the Province in which the work is to be performed, shall furnish a Performance Bond to the Owner using CCA Document(s) 21 in the amount of 100% of the contract price. The Bond shall unconditionally guarantee the performance of the contract, shall be at the expense of the Contractor, and shall remain in effect until 12 months after the date of the Certificate of Total Performance of the work.

Subsection GC6.04 is amended by the addition of the following paragraph:

- 03) In lieu of the Bonds specified in Paragraphs 01) and 02) the Contractor may provide unconditional Irrevocable Letters of Credit, in a form acceptable to the Owner and/or a certified cheque made out to the Owner.

## **SECTION GC7 - CONTRACTOR'S RESPONSIBILITIES AND CONTROL OF THE WORK**

### **GC7.01.02 Commencement of Work**

Subsection GC7.01.02 is deleted and replaced with the following:

- 01) The Contractor shall commence the Work within 14 days after receiving Notice from the Contract Administrator. The Contractor will not commence the work until the contract has been officially accepted by the Corporation, the Insurance Certificates and the Performance Bonds are satisfactory to the Corporation, and the Contractor has received Notice from the Contract Administrator to commence the work.

### **GC7.01.03 Control and Responsibilities**

Subsection GC7.01.03 is amended by the addition of the following paragraphs:

- 06) To co-ordinate the work, the Contractor or a person authorized to act for the Contractor will attend regular meetings with the Contract Administrator or his representative during the period over which the work under the contract is carried out, at a time and place to be decided by the Contract Administrator
- 07) The Contractor shall designate a person to be responsible for traffic control and work zone safety. The designated person shall be a competent worker who is qualified because of knowledge, training, and experience to perform the duties, is familiar with Book 7 of the Ontario Traffic Manual, and has knowledge of all potential or actual danger to workers and motorists. Prior to the commencement of construction, the Contractor shall notify the Contract Administrator of the name, address, position, cell phone, pager, and telephone numbers of the designated person, and update as necessary. The designated person may have other responsibilities, including other construction sites, and need not be present in the Working Area as all times.
- 08) The Contractor shall install at its own expense all sheeting and shoring required to support trenches or to protect existing structures or works. The Contractor is responsible for obtaining the certificates by a Professional Engineer that all shoring will meet Ministry of Labour safety requirements. Evidence of such certification shall be provided to the Contract Administrator.

- 09) The Contractor shall provide for efficient drainage of all sections of the work during all stages of construction at his own expense. The Contractor will be responsible for all damage which may be caused through his failure to provide proper drainage facilities. The Contractor shall restore any existing drainage works which are disturbed as a result of his construction activities.

GC7.01.04 Compliance with the Occupational Health and Safety Act

Subsection GC7.01.04 is amended by the addition of the following paragraph:

- 01)(h) The Contractor shall also work in accordance with the Township's Contractor Safety Policy.

GC7.01.07 Schedule

Subsection GC7.01.07 is amended by the addition of the following paragraph:

- 04) In order to assist the Corporation in inspecting the progress of the work, the Contractor shall prepare a Schedule of Work prior to starting the contract and shall revise the schedule monthly for any changes throughout the contract.

GC7.01.09 Utilities

Paragraph 01) of Subsection GC7.01.09 is deleted and replaced with the following:

- 01) The Contractor shall arrange with the appropriate utility authorities for the stake out of all-underground utilities and service connections, which may be affected by the Work. The Contractor shall be responsible for any damage done to the underground utilities and the service connections by the Contractor's forces during construction. The Contractor shall attend such meetings with the Contract Administrator and the utility authorities for each utility affected by the Contract. The Contractor shall notify the local gas authority at least 48 hours in advance of the commencement of any work, which may affect pipes belonging to the gas utility company. The locate boundaries shall include areas required for owner layout and work activities required by the Township. Provide copy of locate paperwork.

GC7.02 Monuments and Layout

Paragraph 01) of Subsection GC7.02 is deleted and replaced with the following:

- 01) Prior to commencement of construction, the Contractor will locate on site those property bars, control points, baselines and benchmarks which are necessary to delineate the Working Area and to lay out the Work, all as shown on the Contract Drawings.

Subsection GC7.02 is amended by the addition of the following paragraphs:

- 12) The Contract Administrator will provide reference points and reference elevations for the Work. The Contractor will be fully responsible for all survey work required to facilitate the Work. The Contractor must satisfy himself before commencing any work as to the meaning and correctness of all reference points, and no claim will be entertained by the Owner for or on account of any alleged inaccuracies, unless the Contractor notified the Contract Administrator of such inaccuracies in writing before commencing the work.
- 13) The Contractor shall furnish the Contract Administrator or any of his assistants with all reasonable help which may be required at any time in reviewing the survey work. The Contractor will receive no additional compensation for this assistance.
- 14) The Contractor shall provide the layout for all contract work unless otherwise noted.

**GC7.03****Working Area**

Subsection GC7.03 is amended by the addition of the following paragraphs:

- 06) The location of all temporary buildings used for construction purposes must be submitted to the Contract Administrator for approval before erection work commences. Temporary buildings must be kept clean and sanitary and must not become a hazard to health or a nuisance to the adjoining properties.
- 07) The Contractor shall ensure that during night work the site of the Work is adequately floodlit to the Contract Administrator's satisfaction for Work operations, inspections and advance warning to traffic.
- 08) Streets beyond the limits of the work and other construction areas shall be kept clean. Dusty materials shall be transported in covered haulage vehicles. Wet materials shall be transported in suitable watertight haulage vehicles.
- 09) The Contractor shall take such steps as may be required to prevent dust nuisance resulting from its operations either within the limits of the work or elsewhere or by public traffic where it is the Contractor's responsibility to maintain a roadway through the Work.
- 10) Where the Work requires the sawing of asphalt or the sawing or grinding of concrete, blades and grinders of the wet type shall be used together with sufficient water to prevent the incidence of dust, wherever dust would affect traffic or wherever dust would be a nuisance to residents of the area where the Work is being carried out.
- 11) Permitted dust control measures may include the application of calcium chloride or water. In general, the use of calcium chloride and oil shall be kept to a minimum and is restricted to vehicle rights-of-way - more frequent applications

of water in close proximity to watercourses. The Contract Administrator's acceptance shall be obtained before chemicals for dust control are used.

#### GC7.06 Maintaining Roads and Detours

Paragraph 06) of Subsection GC7.06 is deleted and replaced by the following:

- 06) The Contractor will bear the cost of maintaining, in a satisfactory condition for traffic, a road through the working area. The road through the Work will include any detour constructed in accordance with the Contract Documents or required by the Contract Administrator. Compensation for all labour, equipment and materials to do this work and to maintain the road, shall be considered to be included in the prices bid for the various tender items and no additional payment will be made.

Subsection GC7.06 is amended by the addition of the following paragraph:

- 12) In order to satisfy the Corporation that the Contractor has addressed concerns regarding traffic control and safety it will be required to submit a sketch indicating its proposed method of barricades and/or signage for each of the work sites included in the Contract. This information shall be available for review and approval by the Contract Administrator at the Contract pre-construction meeting.

#### GC7.08 Approvals and Permits

Subsection GC7.08 is amended by the addition of the following paragraph:

- 03) The Contractor will notify, obtain inspections and approvals from, and co-operate with other organizations involved or affected by the Work, such as telephone, light and power, gas, railway companies, government agencies.

#### GC7.09 Suspension of Work

Subsection GC7.09 is amended by the addition of the following paragraphs:

- 02) The Contract Administrator may stop any portion of the Work, if in his judgement the weather is such as to prevent the Work from being properly done. No compensation of any kind will be made for such stoppage except an extension of time for the completion of the Work as provided in Subsection GC3.06, Extension of Contract Time.
- 03) The Contractor shall, upon written notice from the Contract Administrator, discontinue or delay any or all Work of base, foundation, or paving construction on any section of any road or highway, if in the opinion of the Contract Administrator, the foundation is not sufficiently compacted or settled for surfacing of the Work in question, and the Work shall not be resumed until the Contract Administrator shall in writing so direct, and the Contractor shall not be

entitled to any compensation for such stoppage or delay to the Work, other than an extension of time as provided in Subsection GC3.06, Extension of Contract Time.

GC7.11 Notices by the Contractor

Subsection GC7.11 is amended by the addition of the following paragraphs:

- 02) The Contractor shall notify the local gas authorities at least 48 hours in advance of the commencement of any work which may affect pipes belonging to the gas utility company.

GC7.12 Environmental Incident Management under Legislation Protecting the Environment and Natural Resources

Subsection GC7.12 is amended by the addition of the following paragraphs:

- 06) Spills or discharge of pollutants or contaminants under the control of the Contractor, and spills or discharges of pollutants or contaminants that are a result of the Contractor's operations that cause or are likely to cause adverse effects shall forthwith be reported to the Contract Administrator.

Such spills or discharges and their adverse effects shall be as defined in the Environmental Protection Act R.S.O. 1990, Chapter E.19. All spills or discharges of liquid, other than accumulated rainwater from luminaires, internally illuminated signs, lamps and liquid type transformers under the control of the Contractor, and all spills or discharges from this equipment that are a result of the Contractor's operations shall, unless otherwise indicated in the Contract, be assumed to contain PCB's and shall forthwith be reported to the Contract Administrator. This reporting will not relieve the Contractor of his legal or contractual responsibilities regarding such spills or discharges.

GC7.14 Limitations of Operations

Paragraph 01) of Subsection GC7.14 is deleted and replaced by the following:

- 01) Except for such work as may be required by the Contract Administrator to maintain the Work in a safe and satisfactory condition, all work shall be scheduled and carried out in compliance with the Township of Nipigon noise by-law unless otherwise approved in writing by the Contract Administrator.

Subsection GC7.14 is amended by the addition of the following paragraph:

- 03) The Contractor will co-operate with the employees of the Corporation or other contractors working on the same or related projects. The Contractor will notify, obtain approvals from, and co-operate with other organizations involved or

affected by the work, such as telephone, light and power, gas, railway companies, etc.

GC7.16 Warranty

Subsection GC7.16 is amended by the addition of the following paragraphs:

- 04) The Contractor shall be responsible for the maintenance of all trenches for a period of 2 years from the date of Substantial Completion. Any shrinkage or settlement during this period will be made good by the Contractor at his own expense. This shall also include making good any other works affected.
- 05) Deficiency defects shall be completed within 30 days of being reported except where carry over of the construction season affects schedule. In this case, all deficiencies shall be completed no later than June 30.
- 06) The Contractor shall be responsible for a two (2) year warranty on all new trees planted under the Contract. This shall include 2 full growing seasons from the date of substantial completion. Any trees found to be unhealthy over this period will be replaced by the Contractor.

Section GC7 is amended by adding a new Subsection GC7.19, as follows;

GC7.19 Accessibility for Ontarians with Disability Act, Reg. 429/07

- 01) Prior to the commencement of work under this contract, the Contractor shall also furnish evidence of compliance with requirements of the Accessibility for Customer Service Regulation 429/07, Section 6; Training for Staff. The Township may, at its discretion, provide such training if the contractor is required to meet the requirements of Regulation 429/07 on and after January 1, 2012.

**SECTION GC8 - MEASUREMENT AND PAYMENT**

GC8.02.03 Advance Payments for Material

Clause GC8.02.03 is amended by the addition of the following paragraph:

- 03) The Corporation will not make advance payments for material under this Contract.

GC8.02.04.01 Progress Payment

Clause GC8.02.04.01 is amended by the addition of the following paragraphs:

- 05) Three [3] copies of each progress payment certificate shall be delivered by the Contract Administrator to the Contractor. The Contractor shall present to the

Contract Administrator two [2] copies of the estimate certified to be correct. Upon receipt of the progress payment certificate verified as aforesaid and upon its approval by the Contract Administrator, the Owner will process the payment to the Contractor.

- 06) Notwithstanding Paragraph 04) the Owner may withhold any or all payments to the Contractor or portion thereof in circumstances where the Contractor is considered by the Owner or Contract Administrator to be unreasonably in default of specified times for completion of the Work.
- 07) The Contractor shall furnish the Contract Administrator with satisfactory evidence in the form of a WSIB Certificate of Clearance that he has made suitable provision for meeting any liability under The Workman's Compensation Act of Ontario, prior to the release of any monthly progress payment.
- 08) The Contractor shall furnish the Contract Administrator with a Statutory Declaration that all liabilities incurred by the Contractor and its sub-contractors in carrying out the Contract have been discharged and that all liens in respect of the Contract have expired or have been satisfied, discharged or provided for by payment. The Statutory Declaration shall be provided prior to all monthly progress payments except the first one.

#### GC8.02.04.03 Subcontract Statutory Holdback Release Certificate and Payment

Clause GC8.02.04.03 is amended by the addition of the following paragraphs:

- 05) If any lien is registered or if the Township receives notice of any claim for lien, then the Township may hold back from the money due to the Contractor hereunder, in addition to the normal statutory lien holdback, sufficient monies to cause a discharge or vacation of the registration of any such lien or any certificate of action relating thereto and to indemnify it completely against such lien or claim for lien or proceedings arising therefrom and from all expenses and costs related thereto, including, but not limited to, legal fees and disbursements on a solicitor and client basis.

#### GC8.02.04.08 Interest

Clause GC8.02.04.08 is deleted and replaced with the following:

- 01) The Owner is not liable to pay interest on any amount which may at any time become payable to the Contractor under this Contract whether or not the payment is in default and whether or not any action or other proceeding has been commenced in respect thereof.

#### GC8.02.04.09 Interest for Late Payment

Clause GC8.02.04.09 is deleted.

GC8.02.04.10 Interest for Negotiations and Claims

Clause 8.02.04.10 is deleted.

GC8.02.05.06.02 Standby Time

Clause GC8.02.05.06.02 is deleted and replaced with the following:

- 01) The Owner is not liable to pay Stand-by Time for any labour or equipment rental under this Contract.

Clause GC8.02.09, Liquidated Damages, is deleted and replaced by the following:

GC8.02.09 Time for Completion and Liquidated Damages

- 01) Time

Time shall be strictly of the essence of this Contract.

- 02) Progress of the Work and Time for Completion

The Contractor shall complete this Contract in its entirety by the completion date specified in the Tender Form.

If the time limit specified is not sufficient to permit completion of the Work by the Contractor working a normal number of hours each day or week on a single daylight shift basis, it is expected that additional and/or augmented daylight shifts will be required throughout the life of the Contract to the extent deemed necessary by the Contractor to ensure that the Work will be completed within the time limit specified. Any additional costs occasioned by compliance with these provisions will be considered to be included in the prices bid for the various items of Work and no additional compensation will be allowed therefore.

An Extension of Time may be granted in writing by the Contract Administrator in his or her sole discretion in the event of the Work being delayed beyond the prescribed time for completion. Such extension shall be for such time as the Contract Administrator may prescribe and the Contract Administrator shall fix the terms on which such an extension may be granted. An application for an Extension of Time shall be made in writing by the Contractor to the Owner at least 15 days prior to the date of completion fixed by the Contract. The date of expiry of all Bonds and other Surety furnished to the Owner by the Contractor shall be extended at the expense of the Contractor.

Any Extension of Time that may be granted to the Contractor shall be so granted and accepted without prejudice to any rights of the Owner whatsoever under this Contract and all of such rights shall continue in full force and effect after the time

limited in this Contract for completion of the work and whenever in this Contract, power or authority is given to the Owner or the Contract Administrator or any person to take any action consequent upon the act, default, neglect, delay, breach, non-observance or non-performance by the Contractor in respect of the Work or Contract or any portion thereof, such powers or authorities may be exercised from time to time, and not only in the event of the happening of such contingencies before the time limited in this Contract for the completion of the Work but also in the event of the same happening after the time so limited in the case of the Contractor being permitted to proceed with the execution of the Work under an Extension of Time granted by the Owner. In the event of the Owner granting an Extension of Time, time shall continue to be deemed strictly of the essence of this Contract.

03) Liquidated Damages

It is agreed by the Parties to the Contract that in case the Contractor fails to achieve Substantial Performance or Total Performance in accordance with the Contract by the days fixed herein for same and specified in the Tender Form or as amended by the Contract Administrator, damage will be sustained by the Owner, and that it is and will be impracticable and extremely difficult to ascertain and determine the actual damage which the Owner will sustain in the event of and by reason of such delay and the Parties therefore agree that the Contractor will pay to the Owner the following sum of

**\$1,500.00 (Substantial Performance) and \$750.00 (Total Performance)** for Liquidated Damages for each and every calendar day's delay in completing the Work beyond the date of completion prescribed and it is agreed that amount is an estimate of actual damage to the Owner which will accrue during the period in excess of the prescribed date of completion.

The Owner may deduct any amount under this paragraph from any monies that may be due or payable to the Contractor on any account whatsoever. The Liquidated Damages payable under this paragraph are in addition to and without prejudice to any other remedy, action or other alternatives that may be available to the Owner.

The Contractor shall not be assessed with Liquidated Damages for any delay caused by Acts of God, or of the Public Enemy, Act of the Corporation, the Contract Administrator, or of any Foreign State, Fire, Epidemics, Quarantine Restrictions, Embargoes, or Delays of sub-contractors due to such causes. If the Contractor is delayed by reason of alterations or changes made under Section GC.03.10, Changes, of the General Conditions, the time of completion shall be extended as determined by the Contract Administrator in his or her sole discretion.

Subsection GC8.02 is amended by the addition of the new Clauses GC8.02.10 and GC8.02.11, as follows;

GC8.02.10 Maintenance Security Holdback

- 01) In addition to any other holdback required by statute or otherwise agreed by the Parties, the Owner will retain, until expiry of the warranty referred to in GC7.16, money in the amount calculated pursuant to Paragraphs 02) and 03) hereof which money may be applied by the Owner in whole or in part in order to reimburse the Owner for losses, costs incurred or funds expended by the Owner as a result of default by the Contractor respecting the warranty obligations of the Contractor set out in the Contract.
- 02) The said holdback for warranty obligations referred to in the preceding paragraph shall be first retained by the Owner when the Contract Administrator certifies that Work to the value of 70% of the Contract Price has been performed and shall be calculated and shown as an amount to be retained in the monthly applications for payment by the Contractor in succeeding applications, commencing when the Contractor makes his first application for payment on the basis that work to the value of 70% of the Contract Price has been performed.
- 01) A Maintenance Security Holdback will be calculated in accordance with the following Table:

<u>Contract Value</u>	<u>Amount of Maintenance Security Holdback</u>
less than \$ 300,000	4% of contract value
\$300,000 - 800,000	\$20,000
\$800,000 - 1,500,000	\$30,000
greater than \$1,500,000	2% of contract value

- 04) The Maintenance Security Holdback is in addition to any other rights or remedies of the Owner in respect to the correction of the Contractor's default of the Contractor's warranty obligations.
- 05) Some portions of the Work have an extended warranty. A proportionate amount of the Maintenance Security Holdback will be retained until expiry of the extended portions.

**GC8.02.11** Fairness is a Two Way Street

- 01) The Contractor shall comply with Ontario Regulations made under "The Fairness is a Two-Way Street Act".
- 02) The Contractor shall:
- .1 Represent and warrant that neither the Contractor nor any subcontractor are persons who are resident in a Designated Jurisdiction

- .2 Acknowledge that any subcontractor not identified in the Tender, following award of the Contract will be subject to the approval of the Owner.
  
- .3 Acknowledge that any material misrepresentation or breach of the representation and warranty in Clause 01) will be grounds for termination of the Contract.



**OPSS MUNI GENERAL CONDITIONS OF CONTRACT**

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## **SECTION GC 1.0 - INTERPRETATION**

### **GC 1.01 Captions**

- .01 The captions appearing in these General Conditions have been inserted as a matter of convenience and for ease of reference only and in no way define, limit, or enlarge the scope or meaning of the General Conditions or any provision hereof.
- .02 In the event of a conflict of a reference to the number and caption of a section, subsection, clause, or paragraph, reference shall be made to the caption.

### **GC 1.02 Abbreviations**

- .01 The abbreviations on the left below are commonly found in the Contract Documents and represent the organizations and phrases listed on the right:

AASHTO	-	American Association of State Highway Transportation Officials
ACI	-	American Concrete Institute
ANSI	-	American National Standards Institute
ASTM	-	ASTM International
AWG	-	American Wire Gauge
AWWA	-	American Water Works Association
CCIL	-	Canadian Council of Independent Laboratories
CGSB	-	Canadian General Standards Board
CSA	-	CSA Group - formerly Canadian Standards Association
CWB	-	Canadian Welding Bureau
GC	-	General Conditions
ISO	-	International Organization for Standardization
MECP	-	Ontario Ministry of the Environment, Conservation and Parks
MTO	-	Ontario Ministry of Transportation
MUTCD	-	Manual of Uniform Traffic Control Devices, published by MTO
OHSA	-	Ontario <i>Occupational Health and Safety Act</i>
OLS	-	Ontario Land Surveyor
OPS	-	Ontario Provincial Standard
OPSD	-	Ontario Provincial Standard Drawing
OPSS	-	Ontario Provincial Standard Specification
OTM	-	Ontario Traffic Manual
PEO	-	Professional Engineers Ontario
SAE	-	SAE International
SCC	-	Standards Council of Canada
SSPC	-	The Society for Protective Coatings
UL	-	Underwriters Laboratories
ULC	-	Underwriters Laboratories Canada
WHMIS	-	Workplace Hazardous Materials Information System
WSIB	-	Workplace Safety & Insurance Board

### **GC 1.03 Gender and Singular References**

- .01 References to the masculine or singular throughout the Contract Documents shall be considered to include the feminine and the plural and vice versa, as the context requires.

### **GC 1.04 Definitions**

- .01 For the purposes of the Contract Documents the following definitions shall apply:

**Abnormal Weather** means an extreme climatic condition characterized by wind speed, air temperature, precipitation, or snow fall depth, that is less than or greater than 1-1/2 standard deviations from the mean determined from the weather records of the 25-year period immediately preceding the tender opening date.

**Actual Measurement** means the field measurement of that quantity within the approved limits of the Work.

**Addenda** means any additions or change in the Tender documents issued by the Owner prior to Tender closing.

**Additional Work** means work not provided for in the Contract Documents and not considered by the Contract Administrator to be essential to the satisfactory completion of the Contract within its intended scope.

**Agreement** means the agreement between the Owner and the Contractor for the performance of the Work that is included in the Contract Documents.

**Base** means a layer of Material of specified type and thickness placed immediately below the pavement, driving surface, finished grade, curb and gutter, or sidewalk.

**Business Day** means any Day except Saturdays, Sundays, and statutory holidays.

**Certificate of Subcontract Completion** means the certificate issued by the Contract Administrator according to clause GC 8.02.04.02, Certification of Subcontract Completion.

**Certificate of Substantial Performance** means the certificate issued by the Contract Administrator at Substantial Performance.

**Change Directive** means any written instruction signed by the Owner, or by the Contract Administrator where so authorized, directing that a Change in the Work or Extra Work be performed.

**Change in the Work** means the deletion, extension, increase, decrease, or alteration of lines; grades; dimensions; quantities; methods; drawings; substantial changes in geotechnical, subsurface, surface, or other conditions; changes in the character of the Work to be done; or Materials of the Work or part thereof, within the intended scope of the Contract.

**Change Order** means a written amendment to the Contract signed by the Contractor and the Owner, or the Contract Administrator where so authorized, covering contingencies, a Change in the Work, Extra Work, Additional Work; and establishing the basis for payment and the time allowed for the adjustment of the Contract Time.

**Completion** means contract completion as set out in the *Construction Act*.

**Completion Certificate** means the certificate issued by the Contract Administrator at Completion.

**Completion Payment** means the payment described more particularly in clause GC 8.02.04.07.

**Construction Act** means as set out in the *Construction Act*, R.S.O. 1990, c. C.30, as amended.

**Constructor** means, for the purposes of, and within the meaning of the *Occupational Health and Safety Act*, R.S.O. 1990, c.O.1, as amended and amendments thereto, the Contractor who executes the Contract.

**Contract** means the undertaking by the Owner and the Contractor to perform their respective duties, responsibilities, and obligations as prescribed in the Contract Documents.

**Contract Administrator** means the person, partnership, or corporation designated by the Owner to be the Owner's representative for the purposes of the Contract.

**Contract Documents** mean the executed Agreement between the Owner and the Contractor, Tender, General Conditions of Contract, Supplemental General Conditions of Contract, Standard Specifications, Special Provisions, Contract Drawings, Addenda incorporated in a Contract Document before the execution of the Agreement, such other documents as may be listed in the Agreement, and subsequent amendments to the Contract Documents made pursuant to the provisions of the Agreement.

**Contract Drawings** or **Contract Plans** mean drawings or plans, any Geotechnical Report, any Subsurface Report, and any other reports and information provided by the Owner for the Work, and without limiting the generality thereof, may include soil profiles, foundation investigation reports, reinforcing steel schedules, aggregate sources list, Quantity Sheets, and cross-sections.

**Contract Time** means the time stipulated in the Contract Documents for Substantial Performance or Completion of the Work, including any extension of time made pursuant to the Contract Documents.

**Contractor** means the person, partnership, or corporation undertaking the Work as identified in the Agreement.

**Control Monument** means any horizontal or vertical (benchmark) monument that is used to lay out the Work.

**Controlling Operation** means any component of the Work that, if delayed, may delay the completion of the Work.

**Cut-Off Date** means the date up to which payment shall be made for Work performed.

**Daily Work Records** mean daily Records detailing the number and categories of workers and hours worked or on standby, types and quantities of Equipment and number of hours in use or on standby, and description and quantities of Material utilized.

**Day** means a calendar day.

**Drawings** or **Plans** mean any Contract Drawings or Contract Plans, or any Working Drawings or Working Plans, or any reproductions of drawings or plans pertaining to the Work.

**End Result Specification** means specifications that require the Contractor to be responsible for supplying a product or part of the Work. The Owner accepts or rejects the final product or applies a price adjustment that is commensurate with the degree of compliance with the specification.

**Engineer** means a professional engineer licenced by the Professional Engineers of Ontario to practice in the Province of Ontario.

**Equipment** means all machinery and equipment used for preparing, fabricating, conveying or erecting the Work and normally referred to as construction machinery and equipment.

**Estimate** means a calculation of the quantity or cost of the Work or part of it depending on the context.

**Extra Work** means work not provided for in the Contract as awarded but considered by the Contract Administrator to be essential to the satisfactory completion of the Contract within its intended scope, including unanticipated Work required to comply with legislation and regulations that affect the Work.

**Final Acceptance** means the date on which the Contract Administrator determines that the Work has passed all inspection and testing requirements and the Contract Administrator is satisfied that the Contractor has rectified all imperfect Work and has discharged all of the Contractor's obligations under the Contract Documents.

**Final Acceptance Certificate** means the certificate issued by the Contract Administrator at Final Acceptance of the Work.

**Final Detailed Statement** means a complete evaluation prepared by the Contract Administrator showing the quantities, unit prices, and final dollar amounts of all items of Work completed under the Contract, including variations in tender items and Extra Work, all as set out in the same general form as the monthly Estimates.

**Geotechnical Report** means a report or other information identifying soil, rock, and ground water conditions in the area of any proposed Work.

**Grade** means the required elevation of that part of the Work.

**Hand Tools** means tools that are commonly called tools or implements of the trade and include small power tools.

**Highway** means a common and public highway any part of which is intended for or used by the general public for the passage of vehicles and includes the area between the lateral property lines thereof.

**Inclement Weather** means weather conditions or conditions resulting directly from weather conditions that prevent the Contractor from proceeding with a Controlling Operation.

**Lot** means a specific quantity of Material or a specific amount of construction normally from a single source and produced by the same process.

**Lump Sum Item** means a tender item indicating a portion of the Work for which payment will be made at a single tendered price. Payment is not based on a measured quantity, although a quantity may be given in the Contract Documents.

**Major Item** means any tender item that has a value, calculated based on its actual or estimated tender quantity, whichever is the larger, multiplied by its tender unit price, which is equal to or greater than the lesser of,

- a) \$100,000, or
- b) 5% of the total tender value calculated based on the total of all the estimated tender quantities and the tender unit prices.

**Material** means Material, machinery, equipment and fixtures forming part of the Work.

**Monument** means either a Property Monument or a Control Monument.

**Owner** means the party to the Contract for whom the Work is being performed, as identified in the Agreement, and includes, with the same meaning and import, "Authority."

**Pavement** means a wearing course or courses placed on the Roadway and consisting of asphaltic concrete, hydraulic cement concrete, Portland cement concrete, or plant or road mixed mulch.

**Performance Bond** means the type of security furnished to the Owner to guarantee completion of the Work according to the Contract and to the extent provided in the bond.

**Plan Quantity** means that quantity as computed from within the boundary lines of the Work as shown in the Contract Documents.

**Project** means the construction of the Work as contemplated by this Contract.

**Proper Invoice** has the meaning as set out in the *Construction Act*.

**Property Monument** means any property bar, concrete pillar, rock post, cut cross or other object that marks the boundary between real property ownership.

**Quality Assurance (QA)** means a system or series of activities carried out by the Owner to ensure that Work meets the specified requirements.

**Quality Control (QC)** means a system or series of activities carried out by the Contractor, Subcontractor, supplier, and manufacturer to ensure that Work meets the specified requirements.

**Quantity Sheet** means a list of the quantities of Work to be done.

**Quarried Rock** means Material removed from an open excavation made in a solid mass of rock that, prior to removal, was integral with the parent mass.

**Quarry** means a place where aggregate has been or is being removed from an open excavation made in a solid mass of igneous, sedimentary, or metamorphic rock or any combination of these that, prior to removal, was integral with the parent areas.

**Rate of Interest** means the prejudgment interest rate determined under subsection 127(2) of the *Courts of Justice Act* or, if the contract or subcontract specifies a different interest rate for the purpose, the greater of the prejudgment interest rate and the interest rate specified in the contract or subcontract.

**Records** mean any books, payrolls, accounts, or other information that relate to the Work or any Change in the Work, Extra Work, Additional Work or claims arising therefrom.

**Roadway** means that part of the Highway designed or intended for use by vehicular traffic and includes the Shoulders.

**Shoulder** means that portion of the Roadway between the edge of the travelled portion of the wearing surface and the top inside edge of the ditch or fill slope.

**Special Provisions** mean directions containing requirements specific to the Work.

**Standard Drawing or Standard Specification** means a standard practice required and stipulated by the Owner for performance of the Work.

**Statutory Holdback** means the holdbacks required under the *Construction Act*.

**Subbase** means a layer of Material of specified type and thickness between the Subgrade and the Base.

**Subcontractor** means a person, partnership or corporation undertaking the execution of a part of the Work by virtue of an agreement with the Contractor.

**Subgrade** means the earth or rock surface, whether in cut or fill, as prepared to support the pavement structure, consisting of Base, Subbase, and Pavement.

**Substantial Performance** has the meaning as set out in the *Construction Act*, R.S.O. 1990, c. C.30, as amended.

**Subsurface Report** means a report or other information identifying the location of Utilities, concealed and adjacent structures, and physical obstructions that fall within the influence of the Work.

**Superintendent** means the Contractor's authorized representative in charge of the Work and who shall be a "competent person" within the meaning of the definition contained in the *Occupational Health and Safety Act*, R.S.O. 1990, c. 0.1, as amended.

**Surety** means the person, partnership or corporation, other than the Contractor, licensed in Ontario to transact business under the *Insurance Act*, R.S.O. 1990, c.1.8, as amended, executing a bond provided by the Contractor.

**Tender** means an offer in writing from the Contractor, submitted in the format prescribed by the Owner, to complete the Work.

**Time and Material** means costs calculated according to clause GC 8.02.05, Payment on a Time and Material Basis.

**Utility** means an aboveground or underground facility maintained by a municipality, public utility authority or regulated authority and includes services such as sanitary sewer, storm sewer, water, electric, gas, oil, steam, data transmission, telephone, and cable television.

**Warranty Period** means the applicable time period according to clause GC 7.16.02, Warranty.

**Work** means the total construction and related services required by the Contract Documents.

**Working Area** means all the lands and easements owned or acquired by the Owner for the construction of the Work.

**Working Day** means any Day,

- a) except Saturdays, Sundays and statutory holidays;
- b) except a Day as determined by the Contract Administrator, on which the Contractor is prevented by inclement weather or conditions resulting immediately therefrom, from proceeding with a Controlling Operation. For the purposes of this definition, this shall be a Day during which the Contractor cannot proceed with at least 60% of the normal labour and Equipment force effectively engaged on the Controlling Operation for at least 5 hours;
- c) except a Day on which the Contractor is prevented from proceeding with a Controlling Operation, as determined by the Contract Administrator by reason of,
  - i. Any breach of the Contract by the Owner or if such prevention is due to the Owner, another contractor hired by the Owner, or an employee of any one of them, or by anyone else acting on behalf of the Owner.
  - ii. Non-delivery of Owner supplied Materials.
  - iii. Any cause beyond the reasonable control of the Contractor that can be substantiated by the Contractor to the satisfaction of the Contract Administrator.

**Working Drawings** or **Working Plans** means any Drawings or Plans prepared by the Contractor for the execution of the Work and may, without limiting the generality thereof, include formwork, falsework, and shoring plans; Roadway protection plans; shop drawings; shop plans; or erection diagrams.

#### **GC 1.05 Ontario Traffic Manual**

- .01 All references in the Contract Documents to the MUTCD, including all Parts and Divisions thereof, or MTO Traffic Control Manual for Roadway Work Operations, or Traffic Control Manual for Roadway Operations Field Edition are hereby deleted and replaced by all currently available books which make up the Ontario Traffic Manual.

#### **GC 1.06 Final Acceptance**

- .01 For the purposes of determining whether Final Acceptance has occurred, the Contract Administrator shall not take into account, in determining the discharge of the Contractor's obligations, any warranty obligation of the Contractor to the extent that the warranty extends beyond 12 months after Substantial Performance.

**GC 1.07****Interpretation of Certain Words**

- .01 The words "acceptable," "approval," "authorized," "considered necessary," "directed," "required," "satisfactory," or words of like import, shall mean approval of, directed, required, considered necessary, or authorized by and acceptable or satisfactory to the Contract Administrator, unless the context clearly indicates otherwise.

## **SECTION GC 2.0 - CONTRACT DOCUMENTS**

### **GC 2.01 Reliance on Contract Documents**

- .01 The Owner warrants that the information furnished in the Contract Documents can be relied upon with the following limitations or exceptions:
- a) Based on available information at the time of the contract, the location of all mainline underground Utilities that may affect the Work shall be shown to a tolerance of:
    - i. 1.0 m horizontal, and
    - ii. 0.3 m vertical
- .02 The Owner does not warrant or make any representation with respect to:
- a) interpretations of data or opinions expressed in any Subsurface Report available for the perusal of the Contractor, that are not included as part of the Contract Documents, and
  - b) other information specifically excluded from this warranty.

### **GC 2.02 Order of Precedence**

- .01 In the event of any inconsistency or conflict in the contents of the following documents, such documents shall take precedence and govern in the following order:
- a) Agreement
  - b) Addenda
  - c) Special Provisions
  - d) Contract Drawings
  - e) Standard Specifications
  - f) Standard Drawings
  - g) Tender
  - h) Supplemental General Conditions
  - i) OPSS.MUNI 100 General Conditions of Contract
  - j) Working Drawings

Later dates shall govern within each of the above categories of documents.

- .02 In the event of any conflict among or inconsistency in the information shown on Drawings, the following rules shall apply:
- a) Dimensions shown in figures on a Drawing shall govern where they differ from dimensions scaled from the same Drawing;
  - b) Drawings of larger scale shall govern over those of smaller scale;
  - c) Detailed Drawings shall govern over general Drawings; and

- d) Drawings of a later date shall govern over those of an earlier date in the same series.
- .03 In the event of any inconsistency or conflict in the contents of Standard Specifications the following descending order of precedence shall govern:
- a) Owner's Standard Specifications
  - b) Ontario Provincial Standard Specifications
  - c) Other standards referenced in OPSSs and OPSDs (e.g., CSA, CGSB, ASTM, and ANSI).
- .04 The Contract Documents are complementary, and what is required by any one shall be as binding as if required by all.

## **SECTION GC 3.0 - ADMINISTRATION OF THE CONTRACT**

### **GC 3.01 Contract Administrator's Authority**

- .01 The Contract Administrator shall be the Owner's representative during construction and until the issuance of the Completion Certificate or the issuance of the Final Acceptance Certificate, whichever is later. All instructions to the Contractor, including instructions from the Owner, shall be issued by the Contract Administrator. The Contract Administrator shall have the authority to act on behalf of the Owner only to the extent provided in the Contract Documents.
- .02 All claims, disputes and other matters in question relating to the performance and the quality of the Work or the interpretation of the Contract Documents shall be referred to the Contract Administrator in writing by the Contractor. The Contract Administrator shall give a decision in writing within a reasonable time.
- .03 The Contract Administrator may inspect the Work for its conformity with the Contract Documents, and to record the necessary data to establish payment quantities under the schedule of tender quantities and unit prices or to assess the value of the Work completed in the case of a lump sum price Contract.
- .04 The Contract Administrator shall provide an estimate of the amounts owing to the Contractor under the Contract as provided for in section GC 8.0, Measurement and Payment.
- .05 The Contract Administrator, to not cause delay in the schedule, shall, with reasonable promptness, review and take appropriate action upon the Contractor's submissions such as shop drawings, product data, and samples according to the Contract Documents. Unless specified otherwise, the Contract Administrator shall respond to submissions requiring approval according to the Contract as soon as possible but not longer than 5 Business Days, or timelines mutually agreed in writing, excluding any requests for extensions of Contract Time.
- .06 The Contract Administrator shall investigate all allegations of a Change in the Work made by the Contractor and issue appropriate instructions.
- .07 The Contract Administrator shall prepare Change Directives and Change Orders for the Owner's approval.
- .08 Upon written application by the Contractor, the Contract Administrator and the Contractor shall jointly conduct an inspection of the Work to establish the date of Substantial Performance of the Work or the date of Completion of the Work or both.
- .09 The Contract Administrator shall be, in the first instance, the interpreter of the Contract Documents and the judge of the performance thereunder by both parties to the Contract. Interpretations and decisions of the Contract Administrator shall be consistent with the intent of the Contract Documents and, in making these decisions, the Contract Administrator shall not show partiality to either party.
- .10 The Contract Administrator shall have the authority to reject any part of the Work or Material that does not conform to the Contract Documents.
- .11 In the event that the Contract Administrator determines that any part of the Work performed by the Contractor is defective, whether the result of poor workmanship the use of defective Material or damage through carelessness or other act or omission of the Contractor and whether or not incorporated in the Work or otherwise fails to conform to the Contract Documents, then the Contractor shall if directed by the Contract Administrator promptly, as directed by the Contract Administrator, remove the Work and replace, make good, or re-execute the Work at no additional cost to the Owner.
- .12 Any part of the Work destroyed or damaged by such removals, replacements, or re-executions shall be made good, promptly, at no additional cost to the Owner.

- .13 If, in the opinion of the Contract Administrator it is not expedient to correct defective Work or Work not performed according to the Contract Documents, the Owner may deduct from monies otherwise due to the Contractor the difference in value between the Work as performed and that called for by the Contract Documents amount that will be determined in the first instance by the Contract Administrator.
- .14 Notwithstanding any inspections made by the Contract Administrator or the issuance of any certificates or the making of any payment by the Owner, the failure of the Contract Administrator to reject any defective Work or Material shall not constitute acceptance of defective Work or Material.
- .15 The Contract Administrator shall have the authority to temporarily suspend the Work for such reasonable time as may be necessary:
- a) to facilitate the checking of any portion of the Contractor's construction layout;
  - b) to facilitate the inspection of any portion of the Work; or
  - c) for the Contractor to remedy its non-compliance with any provisions of the Contract Documents.
- The Contractor shall not be entitled to any compensation for suspension of the Work in these circumstances.
- .16 The Owner has the right to terminate the Contract for wilful or persistent violation by the Contractor or its workers of any applicable laws or bylaws, including but not limited to, the *Occupational Health and Safety Act* legislation and regulations, *Workplace Safety and Insurance Board Act*, and Regulation 347 of the *Environmental Protection Act*.
- .17 If the Contract Administrator determines that any worker employed on the Work is incompetent, as defined by the *Occupational Health and Safety Act*, or is disorderly, then the Contract Administrator shall provide written notice to the Contractor and the Contractor shall immediately remove the worker from the Working Area. Such worker shall not return to the Working Area without the prior written consent of the Contract Administrator.

### **GC 3.02 Working Drawings**

- .01 The Contractor shall arrange for the preparation of clearly identified and dated Working Drawings as called for by the Contract Documents.
- .02 The Contractor, to not cause delay in the Work, shall submit Working Drawings to the Contract Administrator with reasonable promptness and in orderly sequence. If either the Contractor or the Contract Administrator so requests, they shall jointly prepare a schedule fixing the dates for submission and return of Working Drawings. Working Drawings shall be submitted in printed form. At the time of submission, the Contractor shall notify the Contract Administrator in writing of any deviations from the Contract Documents that exist in the Working Drawings.
- .03 The Contract Administrator shall review and return Working Drawings according to an agreed upon schedule, or otherwise, with reasonable promptness so as not to cause delay in any part of the Work.
- .04 The Contract Administrator's review shall be to check for conformity to the design concept and for general arrangement only and such review shall not relieve the Contractor of responsibility for errors or omissions in the Working Drawings or of responsibility for meeting all requirements of the Contract Documents, unless a deviation on the Working Drawings has been approved in writing by the Contract Administrator.
- .05 The Contractor shall make any changes in Working Drawings that the Contract Administrator may require to make the Working Drawings consistent with the Contract Documents and resubmit, unless otherwise directed by the Contract Administrator. When resubmitting, the Contractor shall notify the Contract Administrator in writing of any revisions other than those requested by the Contract Administrator.

- .06 Work related to the Working Drawings shall not proceed until the Working Drawings have been signed and dated by the Contract Administrator.
- .07 The Contractor shall keep one set of the reviewed Working Drawings, marked as above, at the site at all times.

**GC 3.03 Right of the Contract Administrator to Modify Methods and Equipment**

- .01 The Contractor shall, when requested in writing, make alterations in the method, Equipment, or work force at any time the Contract Administrator considers the Contractor's actions to be unsafe, or damaging to either the Work or existing facilities or the environment.
- .02 The Contractor shall, when requested in writing, alter the sequence of its operations on the Contract so as to avoid interference with work being performed by others.
- .03 Notwithstanding the foregoing, the Contractor shall ensure that all necessary safety precautions and protection are maintained throughout the Work.

**GC 3.04 Emergency Situations**

- .01 The Contract Administrator has the right to determine the existence of an emergency situation and, when such an emergency situation is deemed to exist, the Contract Administrator may instruct the Contractor to take action to remedy the situation. If the Contractor does not take timely action or, if the Contractor is not available, the Contract Administrator may direct others to remedy the situation.
- .02 If the emergency situation was the fault of the Contractor, the remedial Work shall be done at the Contractor's expense. If the emergency situation was not the fault of the Contractor, the Owner shall pay for the remedial Work.

**GC 3.05 Layout Information**

- .01 The Contract Administrator shall provide sufficient information, including without limitation, baseline and benchmark information, to facilitate the general location, alignment, elevation and layout of the Work.
- .02 The Contract Administrator shall provide pre and post construction inventories of all Monuments, etc. that are located within the Working Area.
- .03 The Owner shall be responsible only for the correctness of the layout information provided by the Contract Administrator.

**GC 3.06 Extension of Contract Time**

- .01 An application for an extension of Contract Time shall be made in writing by the Contractor to the Contract Administrator as soon as the need for such extension becomes evident and at least 15 Days prior to the expiration of the Contract Time. The application for an extension of Contract Time shall enumerate the reasons and state the length of extension required.
- .02 Circumstances suitable for consideration of an extension of Contract Time include the following:
  - a) Delays: See subsection GC 3.07, Delays.
  - b) Changes in the Work: See clause GC 3.10.01, Change in the Work.
  - c) Extra Work: See clause GC 3.10.02, Extra Work.

- d) Additional Work: See clause GC 3.10.03, Additional Work.
- .03 The Contract Administrator shall, in reviewing an application for an extension to the Contract Time, consider whether the delays, Changes in the Work, Extra Work, or Additional Work involve a Controlling Operation.
- .04 The Contract Time shall be extended for such additional time as may be recommended by the Contract Administrator and deemed fair and reasonable by the Owner.
- .05 The terms and conditions of the Contract shall continue for such extension of Contract Time.

**GC 3.07 Delays**

- .01 If the Contractor is delayed in the performance of the Work by:
  - a) War, blockades, and civil commotions; or
  - b) Errors in the Contract Documents; or
  - c) An act or omission of the Owner or Contract Administrator, or anyone employed or engaged by them directly or indirectly, contrary to the provisions of the Contract Documents; or
  - d) A stop work order issued by a court or public authority, provided that such order was not issued as the result of an act or omission of the Contractor or anyone employed or engaged by the Contractor directly or indirectly; or
  - e) The Contract Administrator giving notice under section GC 7.0, Suspension of Work; or
  - f) Abnormal Weather provided that in the case of an application for an extension of Contract Time, due to the Abnormal Weather, the Contractor shall, with the Contractor's application, submit evidence from Environment Canada, together with detailed calculations in support of such application; or
  - g) Archaeological finds, according to subsection GC 3.15, Archaeological Finds,
  - h) The presence of species at risk as defined in the *Species at Risk Act* (S.C. 2002, c. 29) and/or the *Endangered Species Act*, S.O. 2007, c. 29 not otherwise identified in the Contract Documents, then, the Contractor shall be granted an extension of Contract Time according to subsection GC 3.06, Extension of Contract Time or Interim Completion Dates, and shall be reimbursed by the Owner for reasonable costs incurred by the Contractor as the result of such delay.
- .02 If the Work is delayed by labour disputes, strikes or lock-outs, including lock-outs decreed or recommended to its members by a recognized contractor's association, of which the Contractor is a member or to which the Contractor is otherwise bound, which are beyond the Contractor's control, then the Contract Time shall be extended according to subsection GC 3.06, Extension of Contract Time.
- .03 In no case shall the extension of Contract Time be less than the time lost as the result of the event causing the delay, unless a shorter extension is agreed to by the Contractor. The Contractor shall not be entitled to payment for costs incurred as the result of such delays unless such delays are the result of actions by the Owner.
- .04 The Contractor shall not be entitled to payment for the cost of delays incurred as a result of a dispute between the Contractor and Owner. The Contractor shall execute the Work and may pursue resolution of the dispute according to subsection GC 3.13, Claims, Negotiations, Mediations.

**GC 3.08                      Assignment of Contract**

.01 The Contractor shall not assign the Contract, either in whole or in part, without the prior written consent of the Owner.

**GC 3.09                      Subcontracting by the Contractor**

.01 Subject to clause GC 3.09.03, Subcontracting by the Contractor, the Contractor may subcontract any part of the Work, according to the Contract Documents and any limitations specified therein.

.02 The Contractor shall notify the Contract Administrator in writing in 10 Days prior to the start of construction of the intention to subcontract. Such notification shall identify the part of the Work, and the Subcontractor with whom it is intended.

.03 The Contract Administrator shall, within 5 Days of receipt of such notification, accept or reject the intended Subcontractor. The rejection shall be in writing and shall include the reasons for the rejection.

.04 The Contractor shall not, without the written consent of the Owner, change a Subcontractor who has been engaged according to with this subsection.

.05 The Contractor shall preserve and protect the rights of the Owner under the Contract Documents with respect to that part of the Work to be performed under subcontract and shall:

- a) Enter into agreements with the intended Subcontractors to require them to perform their Work according to the Contract Documents; and
- b) Be as fully responsible to the Owner for acts and omissions of the Contractor's Subcontractors and of persons directly or indirectly employed by them as for acts and omissions of persons directly employed by the Contractor.

.06 The Owner's consent to subcontracting by the Contractor shall not be construed to relieve the Contractor from any obligation under the Contract and shall not impose any liability upon the Owner. Nothing contained in the Contract Documents shall create a contractual relationship between a Subcontractor and the Owner.

**GC 3.10                      Changes**

**GC 3.10.01                      Changes in the Work**

.01 The Owner, or the Contract Administrator where so authorized, may, by order in writing, make a Change in the Work without invalidating the Contract. The Contractor shall not be required to proceed with a Change in the Work until in receipt of a Change Order or Change Directive. Upon the receipt of such Change Order or Change Directive the Contractor shall proceed with the Change in the Work.

.02 The Contractor may apply for an extension of Contract Time according to the terms of clause GC 3.06, Extension of Contract Time.

.03 If the Change in the Work relates solely to quantities, payment for that part of the Work shall be made according to the conditions specified in clause GC 8.01.02, Variations in Tender Quantities. If the Change in the Work does not solely relate to quantities, then either the Owner or the Contractor may initiate negotiations upwards or downwards for the adjustment of the Contract price in respect of the Change in the Work pursuant to subsection GC 3.13, Claims, Negotiations, Mediation or payment may be made according to the conditions contained in clause GC 8.02.05, Payment on a Time and Material Basis.

**GC 3.10.02                    Extra Work**

- .01 The Owner, or Contract Administrator where so authorized, may instruct the Contractor to perform Extra Work without invalidating the Contract. The Contractor shall not be required to proceed with the Extra Work until in receipt of a Change Order or Change Directive. Upon receipt of such Change Order or Change Directive the Contractor shall proceed with the Extra Work.
- .02 The Contractor may apply for an extension of Contract Time according to the terms of clause GC 3.06, Extension of Contract Time.
- .03 Either the Owner or Contractor may initiate negotiations upwards or downwards for the payment for the Extra Work pursuant to subsection GC 3.13, Claims, Negotiations, Mediation, or payment may be made according to the conditions contained in clause GC 8.02.05, Payment on a Time and Material Basis.

**GC 3.10.03                    Additional Work**

- .01 The Owner, or Contract Administrator where so authorized, may request the Contractor to perform Additional Work without invalidating the Contract. If the Contractor agrees to perform Additional Work, the Contractor shall proceed with such Additional Work upon receipt of a Change Order.
- .02 The Contractor may apply for an extension of Contract Time according to the terms of subsection GC 3.06, Extension of Contract Time.
- .03 Payment for the Additional Work may be negotiated pursuant to subsection GC 3.13, Claims, Negotiations, Mediation, or payment may be made according to the conditions contained in clause GC 8.02.05, Payment on a Time and Material Basis.

**GC 3.11                        Notices**

- .01 Any notice permitted or required to be given to the Contract Administrator or the Superintendent in respect of the Work shall be deemed to have been given to and received by the addressee on the date of delivery if delivered by hand, email, or by facsimile transmission and on the fifth Day after the date of mailing, if sent by mail.
- .02 The Contractor and the Owner shall provide each other with the mail and email addresses; cell phone, and telephone numbers for the Contract Administrator and the Superintendent at the commencement of the Work, and update as necessary.
- .03 In the event of an emergency situation or other urgent matter the Contract Administrator or the Superintendent may give a verbal notice, provided that such notice is confirmed in writing within 2 Days.
- .04 Any notice permitted or required to be given to the Owner or the Contractor shall be given according to the notice provision of the Contract.

**GC 3.12                        Use and Occupancy of the Work Prior to Substantial Performance**

- .01 Where it is not contemplated elsewhere in the Contract Documents, the Owner may use or occupy the Work or any part thereof prior to Substantial Performance, provided that at least 30 Days written notice has been given to the Contractor.
- .02 The use or occupancy of the Work or any part thereof by the Owner prior to Substantial Performance shall not constitute an acceptance of the Work or parts so occupied. In addition, the use or occupancy of the Work shall not relieve the Contractor or the Contractor's Surety from any liability that has arisen, or may arise, from the performance of the Work according to the Contract Documents. The Owner shall be responsible for any damage that occurs because of the Owner's use or occupancy. Such use or

occupancy of any part of the Work by the Owner does not waive the Owner's right to charge the Contractor liquidated damages according to the terms of the Contract.

**GC 3.13 Claims, Negotiations, Mediation**

**GC 3.13.01 Continuance of the Work**

- .01 Unless the Contract has been terminated or completed, the Contractor shall in every case, after serving or receiving any notification of a claim or dispute, verbal or written, continue to proceed with the Work with due diligence and expedition. It is understood by the parties that such action shall not jeopardize any claim it may have.

**GC 3.13.02 Record Keeping**

- .01 Immediately upon commencing Work that may result in a claim, the Contractor shall keep Daily Work Records during the course of the Work, sufficient to substantiate the Contractor's claim, and the Contract Administrator shall keep Daily Work Records to be used in assessing the Contractor's claim, all according to clause GC 8.02.07, Records.
- .02 The Contractor and the Contract Administrator shall attempt to reconcile their respective Daily Work Records on a daily basis, to simplify review of the claim, when submitted. If the Contractor and the Contract Administrator fail to reconcile their respective Daily Work Records, then the Contractor shall submit its Daily Work Records as part of its claim, whereby the resolution of the dispute about the Daily Work Records shall not be resolved until there is a resolution of the claim.
- .03 The keeping of Daily Work Records by the Contract Administrator or the reconciling of such Daily Work Records with those of the Contractor shall not be construed to be acceptance of the claim.

**GC 3.13.03 Claims Procedure**

- .01 The Contractor shall give verbal notice of any situation that may lead to a claim for additional payment immediately upon becoming aware of the situation.
- .02 The Contractor shall provide written notice within 7 Days of the commencement of any part of the Work that may be affected by the situation.
- .03 The Contractor shall submit detailed claims as soon as reasonably possible and in any event no later than 30 Days or such time as mutually agreed after completion of the Work affected by the situation. The detailed claim shall:
  - a) Identify the item or items in respect of which the claim arises;
  - b) State the grounds, contractual or otherwise, upon which the claim is made; and
  - c) Include the Records maintained by the Contractor supporting such claim.
- .04 Within 30 Days of the receipt of the Contractor's detailed claim, the Contract Administrator may request the Contractor to submit any further and other particulars as the Contract Administrator considers necessary to assess the claim. The Contractor shall submit the requested information within 30 Days of receipt of such request.
- .05 Within 90 Days of receipt of the detailed claim, the Contract Administrator shall advise the Contractor, in writing, of the Contract Administrator's opinion regarding the validity of the claim.

**GC 3.13.04                      Negotiations**

- .01 The parties shall make all reasonable efforts to resolve their dispute by amicable negotiations and agree to provide, without prejudice, open and timely disclosure of relevant facts, information, and documents to facilitate these negotiations.
- .02 Should the Contractor disagree with the opinion given in clause GC 3.13.03.05, with respect to any part of the claim, the Contract Administrator shall enter into negotiations with the Contractor to resolve the matters in dispute. Where a negotiated settlement cannot be reached and it is agreed that payment cannot be made on a Time and Material basis according to clause GC 8.02.05, Payment on a Time and Material Basis, the parties shall proceed according to clause GC 3.13.05, Mediation, or subsection GC 3.14, Arbitration.
- .03 Prior to the expiry of 30 Business Days from the date of receipt of the Contractors claim, the Contract Administrator shall provide a written response to the Contractor stating the Contract Administrator's final price for the Change Order and an explanation of the rationale and basis of the Contract Administrator's position which shall be deemed to be the initial site response.

**GC 3.13.05                      Mediation**

- .01 If a claim is not resolved satisfactorily through the negotiation stage noted in clause GC 3.13.04, Negotiations, within a period of 30 Days following the opinion given in clause GC 3.13.03.05, and the Contractor wishes to pursue the issue further, the parties may, upon mutual agreement, utilize the services of an independent third-party mediator.
- .02 The mediator shall be mutually agreed upon by the Owner and Contractor.
- .03 The mediator shall be knowledgeable regarding the area of the disputed issue. The mediator shall meet with the parties together or separately, as necessary, to review all aspects of the issue. In a final attempt to assist the parties in resolving the issue themselves prior to proceeding to arbitration the mediator shall provide, without prejudice, a non-binding recommendation for settlement.
- .04 The review by the mediator shall be completed within 90 Days following the opinion given in clause GC 3.13.03.05.
- .05 Each party is responsible for its own costs related to the use of the mediation process. The cost of the third-party mediator shall be equally shared by the Owner and Contractor.

**GC 3.13.06                      Payment**

- .01 Payment of the claim shall be made no later than 28 Days after the date of resolution of the claim or dispute. Such payment shall be made according to the terms of section GC 8.0, Measurement and Payment.

**GC 3.13.07                      Rights of Both Parties**

- .01 It is agreed that no action taken under subsection GC 3.13, Claims, Negotiations, Mediation, by either party shall be construed as a renunciation or waiver of any of the rights or recourse available to the parties, provided that the requirements set out in this subsection are fulfilled.
- .02 It is further agreed that the parties may at any time resort to the adjudication procedure contained in the *Construction Act*.

**GC 3.14                      Arbitration**

**GC 3.14.01                      Conditions of Arbitration**

- .01 If a claim is not resolved satisfactorily through the negotiation stage noted in clause GC 3.13.04, Negotiations, or the mediation stage noted in clause GC 3.13.05, Mediation, either party may invoke the provisions of subsection GC 3.14, Arbitration, by giving written notice to the other party.
- .02 Notification that arbitration shall be implemented to resolve the issue shall be communicated in writing as soon as possible and no later than 60 Days following the opinion given in clause GC 3.13.03.05. Where the use of a third-party mediator was implemented, notification shall be within 120 Days of the opinion given in clause GC 3.13.03.05.
- .03 The parties shall be bound by the decision of the arbitrator.
- .04 The rules and procedures of the *Arbitration Act*, 1991, S.O. 1991, c.17, as amended, shall apply to any arbitration conducted hereunder except to the extent that they are modified by the express provisions of subsection GC 3.14, Arbitration.

**GC 3.14.02                      Arbitration Procedure**

- .01 The following provisions are to be included in the agreement to arbitrate and are subject only to such right of appeal as exist where the arbitrator has exceeded their jurisdiction or have otherwise disqualified themselves:
  - a) All existing actions in respect of the matters under arbitration shall be stayed pending arbitration;
  - b) All outstanding claims and matters to be settled are to be set out in a schedule to the agreement. Only such claims and matters as are in the schedule shall be arbitrated; and
  - c) Before proceeding with the arbitration, the Contractor shall confirm that all matters in dispute are set out in the schedule.

**GC 3.14.03                      Appointment of Arbitrator**

- .01 The arbitrator shall be mutually agreed upon by the Owner and Contractor to adjudicate the dispute.
- .02 Where the Owner and Contractor cannot agree on a sole arbitrator within 30 Days of the notification of arbitration noted in clause GC 3.14.01.02, the Owner and the Contractor shall each choose an appointee within 37 Days of the notice of arbitration.
- .03 The appointees shall mutually agree upon an arbitrator to adjudicate the dispute within 15 Days after the last appointee was chosen or they shall refer the matter to the ADR Institute of Ontario (ADRIO), which may select an arbitrator to adjudicate the dispute within 7 Days of being requested to do so.
- .04 The arbitrator shall not be interested financially in the Contract nor in either party's business and shall not be employed by either party.
- .05 The arbitrator may appoint independent experts and any other persons to assist them.
- .06 The arbitrator is not bound by the rules of evidence that govern the trial of cases in court but may hear and consider any evidence that the arbitrator considers relevant.
- .07 The hearing shall commence within 90 Days of the appointment of the arbitrator.

**GC 3.14.04                      Costs**

- .01 The arbitrator's fee shall be equally shared by the Owner and the Contractor.
- .02 The fees of any independent experts and any other persons appointed to assist the arbitrator shall be shared equally by the Owner and the Contractor.
- .03 The arbitration hearing shall be held in a place mutually agreed upon by both parties or in the event the parties do not agree, a site shall be chosen by the arbitrator. The cost of obtaining appropriate facilities shall be shared equally by the Owner and the Contractor.
- .04 The arbitrator may, in their discretion, award reasonable costs, related to the arbitration.

**GC 3.14.05                      The Decision**

- .01 The reasoned decision shall be made in writing within 90 Days of the conclusion of the hearing. An extension of time to make a decision may be granted with consent of both parties. Payment shall be made according to clause GC 3.13.06, Payment.

**GC 3.15                              Archaeological Finds**

- .01 If the Contractor's operations expose any items that may indicate an archaeological find, such as but not limited to building remains, hardware, accumulations of bones, pottery, or arrowheads, the Contractor shall immediately notify the Contract Administrator and suspend operations within the area identified by the Contract Administrator. Notification may be verbal provided that such notice is confirmed in writing within 2 Days. Work shall remain suspended within that area until otherwise directed by the Contract Administrator in writing, according to subsection GC 7.09, Suspension of Work.
- .02 Any delay in the completion of the Contract that is caused by such a suspension of Work shall be considered to be beyond the Contractor's control according to clause GC 3.07.01.
- .03 Any Work directed or authorized in connection with an archaeological find shall be considered as Extra Work according to clause GC 3.10.02, Extra Work.
- .04 The Contractor shall take all reasonable action to minimize additional costs that may accrue as a result of any work stoppage.

## **SECTION GC 4.0 - OWNER'S RESPONSIBILITIES AND RIGHTS**

### **GC 4.01 Working Area**

- .01 The Owner shall acquire all property rights that are deemed necessary by the Owner for the construction of the Work, including temporary working easements, and shall indicate the full extent of the Working Area on the Contract Drawings.

### **GC 4.02 Approvals and Permits**

- .01 The Owner shall pay for all plumbing and building permits.
- .02 The Owner shall obtain and pay for all permits, licences, and certificates solely required for the design of the Work.

### **GC 4.03 Management and Disposition of Materials**

- .01 The Owner shall identify in the Contract Documents the Materials to be moved within or removed from the Working Area and any characteristics of those Materials that necessitates special Materials management and disposition.
- .02 According to regulations under the *Occupational Health and Safety Act*, R.S.O. 1990, c.O.1, as amended, the Owner advises that:
- a) The designated substances silica, lead, and arsenic are generally present throughout the Working Area occurring naturally or as a result of vehicle emissions;
  - b) The designated substance asbestos may be present in cement products, asphalt, and conduits for Utilities;
  - c) The following hazardous materials are ordinarily present in construction activities: limestone, gypsum, marble, mica, and Portland cement; and
  - d) Exposure to these substances may occur as a result of activities by the Contractor such as sweeping, grinding, crushing, drilling, blasting, cutting, and abrasive blasting.
- .03 The Owner shall identify in the Contract Documents any designated substances or hazardous materials other than those identified above and their location in the Working Area.
- .04 If the Owner or Contractor discovers or is advised of the presence of designated substances or hazardous Materials that are in addition to those listed in clause GC 4.03.02, or not clearly identified in the Contract Documents according to clause GC 4.03.03, then verbal notice shall be provided to the other party immediately with written confirmation within 2 Days. The Contractor shall stop Work in the area immediately and shall determine the necessary steps required to complete the Work according to applicable legislation and regulations.
- .05 The Owner shall be responsible for any reasonable additional costs of removing, managing and disposing of any Material not identified in the Contract Documents, or where conditions exist that could not have been reasonably foreseen at the time of tendering. All work under this paragraph shall be deemed to be Extra Work.
- .06 Prior to commencement of the Work, the Owner shall provide to the Contractor a list of those products controlled under the Workplace Hazardous Materials Information System (WHMIS), that the Owner may supply or use on the Contract, together with copies of the Safety Data Sheets for these products. All containers used in the application of products controlled under WHMIS shall be labelled. The Owner shall notify the Contractor in writing of changes to the list and provide relevant Safety Data Sheets.

- .07 Unless expressly permitted in the Contract Documents, the Contractor shall not bring onto the Work Area any designated substance or hazardous Material per OSHA without the prior written authorization of the Contract Administrator.
- .08 The Contractor shall use all reasonable care to avoid spilling or disturbing any designated substances or hazardous Material per OSHA.

**GC 4.04 Construction Affecting Railway Property**

- .01 The Owner shall pay the costs of all flagging and other traffic control measures required and provided by the railway company unless such costs are solely a function of the Contractor's chosen method of completing the Work.
- .02 Every precaution shall be taken by the Contractor to protect all railway property at track crossings; or otherwise, on which construction operations are to take place according to the terms of this Contract.
- .03 The Contractor shall be required to conduct the construction operations in such a manner as to avoid a possibility of damaging any railway property in the vicinity of the Works. Every reasonable precaution shall be taken by the Contractor to ensure the safety of the workers, Subcontractors, and Equipment, as well as railway property throughout the duration of the Contract.

**GC 4.05 Default by the Contractor**

- .01 If the Contractor fails to commence the Work within 14 Days of a formal order to commence Work signed by the Contract Administrator or, upon commencement of the Work, should neglect to prosecute the Work properly or otherwise fails to comply with the requirements of the Contract and, if the Contract Administrator has given a written statement to the Owner and Contractor that sufficient cause exists to justify such action, the Owner may, without prejudice to any other right or remedy the Owner may have, notify the Contractor in writing that the Contractor is in default of the Contractor's contractual obligations and instruct the Contractor to correct the default in the 5 Working Days immediately following the receipt of such notice.
- .02 If the Contractor is adjudged bankrupt, or makes a general assignment for the benefit of creditors because of the Contractor's insolvency or if a receiver is appointed because of the Contractor's insolvency, the Owner may, without prejudice to any other right or remedy the Owner may have, by giving the Contractor or receiver or trustee in bankruptcy notice in writing, terminate the Contract.

**GC 4.06 Contractor's Right to Correct a Default**

- .01 The Contractor shall have the right within the 5 Working Days following the receipt of a notice of default to correct the default and provide the Owner with satisfactory proof that appropriate corrective measures have been taken.
- .02 If the Owner determines that the correction of the default cannot be completed within the 5 Working Days following receipt of the notice, the Contractor shall not be in default if the Contractor:
  - a) Commences the correction of the default within the 5 Working Days following receipt of the notice;
  - b) Provides the Owner with a schedule acceptable to the Owner for the progress of such correction; and
  - c) Completes the correction according to such schedule.

**GC 4.07                      Owner's Right to Correct Default**

.01 If the Contractor fails to correct the default within the time specified in subsection GC 4.06, Contractor's Right to Correct a Default, or subsequently agreed upon, the Owner, without prejudice to any other right or remedy the Owner may have, may correct such default and deduct the cost thereof, as certified by the Contract Administrator, from any payment then or thereafter due to the Contractor.

**GC 4.08                      Termination of Contractor's Right to Continue the Work**

.01 Where the Contractor fails to correct a default within the time specified in subsection GC 4.06, Contractor's Right to Correct a Default, or subsequently agreed upon, the Owner, without prejudice to any other right or remedy the Owner may have, may terminate the Contractor's right to continue the Work in whole or in part by giving written notice to the Contractor.

.02 If the Owner terminates the Contractor's right to continue with the Work in whole or in part, the Owner shall be entitled to:

- a) Take possession of the Working Area or that portion of the Working Area devoted to that part of the Work terminated;
- b) Utilize any Material within the Working Area;
- c) Withhold further payments to the Contractor with respect to the Work or the portion of the Work withdrawn from the Contractor until the Work or portion thereof withdrawn is completed;
- d) Charge the Contractor the additional cost over the Contract price of completing the Work or portion thereof withdrawn from the Contractor, as certified by the Contract Administrator and any additional compensation paid to the Contract Administrator for such additional service arising from the correction of the default;
- e) Charge the Contractor a reasonable allowance, as determined by the Contract Administrator, to cover correction to the Work performed by the Contractor that may be required under subsection GC 7.16, Warranty;
- f) Charge the Contractor for any damages the Owner sustained as a result of the default; and
- g) Charge the Contractor the amount by which the cost of corrections to the Work under subsection GC 7.16, Warranty, exceeds the allowance provided for such corrections.

**GC 4.09                      Final Payment to Contractor**

.01 If the Owner's cost to correct and complete the Work in whole or in part is less than the amount withheld from the Contractor under subsection GC 4.08, Termination of Contractor's Right to Continue the Work, the Owner shall pay the balance to the Contractor as soon as the final accounting for the Contract is complete.

**GC 4.10                      Termination of the Contract**

.01 Where the Contractor is in default of the Contract the Owner shall, without prejudice to any other right or remedy the Owner may have, terminate the Contract by giving written notice of termination to the Contractor, the Surety, and any trustee or receiver acting on behalf of the Contractor's estate or creditors.

.02 If the Owner elects to terminate the Contract, the Owner shall provide the Contractor and the trustee or receiver with a complete accounting to the date of termination.

**GC 4.11**                      **Continuation of Contractor's Obligations**

.01 The Contractor's obligation under the Contract as to quality, correction, and warranty of the Work performed prior to the time of termination of the Contract or termination of the Contractor's right to continue with the Work in whole or in part shall continue to be in force after such termination.

**GC 4.12**                      **Use of Performance Bond**

.01 If the Contractor is in default of the Contract and the Contractor has provided a Performance Bond, the provisions of section GC 4.0, Owner's Responsibilities and Rights, shall be exercised according to the conditions of the Performance Bond.

**GC 4.13**                      **Payment Adjustment**

.01 If any situation should occur in the performance of the Work that would result in a Change in the Work, the Owner shall be entitled to an adjustment and those adjustments shall be managed according to clause GC 3.10.01, Changes in the Work.

## **SECTION GC 5.0 - MATERIAL**

### **GC 5.01 Supply of Material**

- .01 All Material necessary for the proper completion of the Work, except that listed as being supplied by the Owner, shall be supplied by the Contractor. The Contract price for the appropriate tender items shall be deemed to include full compensation for the supply and delivery of such Material.

### **GC 5.02 Quality of Material**

- .01 All Material supplied by the Contractor shall be new, unless otherwise specified in the Contract Documents.
- .02 Material supplied by the Contractor shall conform to the requirements of the Contract.
- .03 As specified in the Contract Documents or as requested by the Contract Administrator, the Contractor shall make available, for inspection or testing, a sample of any Material to be supplied by the Contractor.
- .04 The Contractor shall obtain for the Contract Administrator the right to enter onto the premises of the Material manufacturer or supplier to carry out such inspection, sampling, and testing as specified in the Contract Documents or as requested by the Contract Administrator.
- .05 The Contractor shall notify the Contract Administrator of the sources of supply sufficiently in advance of the Material shipping dates to enable the Contract Administrator to perform the required inspection, sampling, and testing.
- .06 The Owner shall not be responsible for any delays to the Contractor's operations where the Contractor fails to give sufficient advance notice to the Contract Administrator to enable the Contract Administrator to carry out the required inspection, sampling, and testing before the scheduled shipping date.
- .07 The Contractor shall not change the source of supply of any Material without the written authorization of the Contract Administrator.
- .08 Material that is not specified shall be of a quality best suited to the purpose required, and the use of such Material shall be subject to the approval of the Contract Administrator.
- .09 All Material inspection, sampling, and testing shall be carried out on random basis according to the standard inspection or testing methods required for the Material. Any approval given by the Contract Administrator for the Materials to be used in the Work based upon the random method shall not relieve the Contractor from the responsibility of incorporating Material that conforms to the Contract Documents into the Work or properly performing the Contract and of any liability arising from the failure to properly perform as specified in the Contract Documents.

### **GC 5.03 Rejected Material**

- .01 Rejected Material shall be removed from the Working Area expeditiously after the notification to that effect from the Contract Administrator. Where the Contractor fails to comply with such notice, the Contract Administrator may cause the rejected Material to be removed from the Working Area and disposed of, in what the Contract Administrator considers to be the most appropriate manner, and the Contractor shall pay the costs of disposal and the appropriate overhead charges.

### **GC 5.04 Substitutions**

- .01 Where the Contract Documents require the Contractor to supply a Material designated by a trade or other name, the Tender shall be based only upon supply of the Material so designated, that shall be regarded as the standard of quality required by the Contract Documents. After the acceptance of the Tender, the

Contractor may apply to the Contract Administrator to substitute another Material identified by a different trade or other name for the Material designated as aforesaid. The application shall be in writing and shall state the price for the proposed substitute Material designated as aforesaid, and such other information as the Contract Administrator may require.

- .02 Rulings on a proposed substitution shall not be made prior to the acceptance of the Tender. Substitutions shall not be made without the prior approval of the Contract Administrator. The approval or rejection of a proposed substitution shall be at the discretion of the Contract Administrator.
- .03 If the proposed substitution is approved by the Contract Administrator, the Contractor shall be entitled to the first \$1,000 of the aggregate saving in cost by reason of such substitution and to 50% of any additional saving in cost in excess of such \$1,000. Each such approval shall be conveyed to the Contractor in writing or by issuance of a Certificate of Equality on the Owner's standard form of "Certification of Equality" and, if any adjustment to the Contract price is made by reason of such substitution, a Change Order shall be issued as well.

**GC 5.05                      Owner Supplied Material**

**GC 5.05.01                  Ordering of Excess Material**

- .01 Where Material is supplied by the Owner and where this Material is ordered by the Contractor in excess of the amount specified to complete the Work, such excess Material shall become the property of the Contractor on completion of the Work and shall be charged to the Contractor at cost plus applicable overheads.

**GC 5.05.02                  Care of Material**

- .01 The Contractor shall, in advance of receipt of shipments of Material supplied by the Owner, provide adequate and proper storage facilities acceptable to the Contract Administrator, and on the receipt of such Material shall promptly place it in storage except where it is to be incorporated forthwith into the Work.
- .02 The Contractor shall be responsible for acceptance of Material supplied by the Owner, at the specified delivery point and for its safe handling and storage. If such Material is damaged while under the control of the Contractor, it shall be replaced or repaired by the Contractor at no expense to the Owner, and to the satisfaction of the Contract Administrator. If such Material is rejected by the Contract Administrator for reasons that are not the fault of the Contractor, it shall remain in the care and at the risk of the Contractor until its disposition has been determined by the Contract Administrator.
- .03 Where Material supplied by the Owner arrives at the delivery point in a damaged condition or where there are discrepancies between the quantities received and the quantities shown on the bills of lading, the Contractor shall immediately report such damage or discrepancies to the Contract Administrator who shall arrange for an immediate inspection of the shipment and provide the Contractor with a written release from responsibility for such damage or deficiencies. Where damage or deficiencies are not so reported, it shall be assumed that the shipment arrived in good condition and order, and any damage or deficiencies reported thereafter shall be made good by the Contractor at no extra cost to the Owner.
- .04 The full amount of Material supplied by the Owner in each shipment shall be accounted for by the Contractor and such Material shall be at the risk of the Contractor after taking delivery. Such Material shall not, except with the written permission of the Contract Administrator, be used by the Contractor for purposes other than the performance of the Work under the Contract.
- .05 Empty reels, crates, containers, and other type of packaging from Material supplied by the Owner shall become the property of the Contractor when they are no longer required for their original purpose and shall be disposed of by the Contractor at the Contractor's expense unless otherwise specified in the Contract Documents.

- .06 Immediately upon receipt of each shipment, the Contractor shall provide the Contract Administrator copies of bills of lading, or such other documentation the Contract Administrator may require to substantiate and reconcile the quantities of Material received.
- .07 Where Material supplied by the Owner is ordered and stockpiled prior to the award of the Contract, the Contractor shall, at no extra cost to the Owner, immediately upon commencement of operations, check the Material, report any damage or deficiencies to the Contract Administrator and take charge of the Material at the stockpile site. Where damage or deficiencies are not so recorded by the Contractor, it shall be assumed that the stockpile was in good condition and order when the Contractor took charge of it, and any damage or deficiencies reported thereafter shall be made good by the Contractor at no extra cost to the Owner.

## **SECTION GC 6.0 - INSURANCE, PROTECTION AND DAMAGE**

### **GC 6.01 Protection of Work, Persons and Property**

- .01 The Contractor, the Contractor's agents, and all workers employed by or under the control of the Contractor, including Subcontractors, shall protect the Work, persons, and property from damage or injury. The Contractor shall be responsible for all losses and damage that may arise as the result of the Contractor's operations under the Contract, unless indicated to the contrary below.
- .02 The Contractor is responsible for the full cost of any necessary temporary protective Work and the restoration of all damage where the Contractor damages the Work or property in the performance of the Contract. If the Contractor is not responsible for the damage that occurs to the Work or property, the Contractor shall restore such damage, and such Work and payment shall be administered according to these General Conditions.
- .03 The Contractor shall immediately inform the Contract Administrator of all damage and injuries that occur during the term of the Contract. The Contractor shall then investigate and report back to the Contract Administrator within 15 Days of occurrence of incident, or as soon as possible. The Contract Administrator may conduct its own investigation and the Contractor shall provide all assistance to the Contract Administrator as may be necessary for that purpose.
- .04 The Contractor shall not be responsible for loss and damage that occurs as a result of:
- a) War;
  - b) Blockades and civil commotions;
  - c) Errors in the Contract Documents; or
  - d) Acts or omissions of the Owner, the Contract Administrator, their agents and employees, or others not under the control of the Contractor, but within the Working Area with the Owner's permission.
- .05 The Contractor and the Contractor's Surety shall not be released from any term or provision of any responsibility, obligation, or liability under the Contract or waive or impair any of the rights of the Owner, except by a release duly executed by the Owner.

### **GC 6.02 Indemnification**

- .01 The Contractor shall indemnify and hold harmless the Owner and the Contract Administrator, their elected officials, agents, officers, and employees from and against all claims, demands, losses, expenses, costs, damages, actions, suits, or proceedings by third parties, hereinafter called "claims", directly or indirectly arising or alleged to arise out of the performance of or the failure to perform the Work, provided such claims are:
- a) Attributable to bodily injury, sickness, disease, or death or to damage to or destruction of tangible property;
  - b) Caused by negligent acts or omissions of the Contractor or anyone for whose acts the Contractor may be liable; and
  - c) Made in writing within a period of 6 years from the date of Substantial Performance of the Work as set out in the Certificate of Substantial Performance of the Work or, where so specified in the Contract Documents, from the date of certification of Final Acceptance.

- .02 The Contractor shall indemnify and hold harmless the Owner from all and every claim for damages, royalties or fees for the infringement of any patented invention or copyright occasioned by the Contractor in connection with the Work performed or Material furnished by the Contractor under the Contract.
- .03 The Owner expressly waives the right to indemnity for claims other than those stated in clauses GC 6.02.01 and GC 6.02.02.
- .04 The Owner shall indemnify and hold harmless the Contractor, their elected officials, agents, officers, and employees from and against all claims, demands, losses, expenses, costs, damages, actions, suits, or proceedings arising out of the Contractor's performance of the Contract that are attributable to a lack of or defect in title or an alleged lack of or defect in title to the Working Area.
- .05 The Contractor expressly waives the right to indemnity for claims other than those stated in clause GC 6.02.04.

**GC 6.03 Contractor's Insurance**

**GC 6.03.01 General**

- .01 Without restricting the generality of subsection GC 6.02, Indemnification, the Contractor shall provide, maintain, and pay for the insurance coverages listed under clauses GC 6.03.02 and GC 6.03.03. Insurance coverage in clauses GC 6.03.04, GC 6.03.05, and GC 6.03.06 shall only apply when so specified in the Contract Documents.
- .02 The Contractor shall provide the Contract Administrator with an original Certificate of Insurance for each type of insurance coverage that is required by the Contract Documents. The Contractor shall ensure that the Contract Administrator is, at all times in receipt of a valid Certificate of Insurance for each type of insurance coverage, in such amounts as specified in the Contract Documents. The Contractor will not be permitted to commence Work until the Contract Administrator is in receipt of such proof of insurance. The Contract Administrator may withhold payments of monies due to the Contractor until the Contractor has provided the Contract Administrator with original valid Certificates of Insurance as required by the provisions of the Contract Documents.

**GC 6.03.02 Commercial General Liability Insurance**

- .01 Commercial General Liability Insurance shall be in the name of the Contractor, with the Owner and the Contract Administrator named as additional insureds, with limits of not less than \$5,000,000 inclusive per occurrence for bodily injury, death, and damage to property including loss of use thereof. The insurance shall be provided in a form acceptable to the Owner.
- .02 Approval of this insurance shall be conditional upon the Contractor obtaining the services of an insurer licensed to underwrite insurance in the Province of Ontario and obtaining the insurer's certificate of equivalency to the required insurance.
- .03 The Contractor shall submit annually to the Owner, proof of continuation of the completed operations coverage and, if the Contractor fails to do so, the limitation period for claiming indemnity described in clause GC 6.02.01 c), shall not be binding on the Owner.
- .04 Should the Contractor decide not to employ Subcontractors for operations requiring the use of explosives for blasting, pile driving or caisson work, removal or weakening of support of property building or land, the Commercial General Liability Insurance shall include the appropriate endorsements.
- .05 The policies shall be endorsed to provide the Owner with not less than 30 Days written notice in advance of cancellation, termination, or material change.
- .06 "Claims Made" insurance policies shall not be permitted.

**GC 6.03.03                    Automobile Liability Insurance**

.01    Automobile liability insurance in respect of licensed vehicles shall have limits of not less than \$5,000,000 inclusive per occurrence for bodily injury, death and damage to property, in the following forms endorsed to provide the Owner with not less than 30 Days written notice in advance of any cancellation, termination, or material change:

- a)    Standard non-owned automobile policy including standard contractual liability endorsement, and
- b)    Standard owner's form automobile policy providing third party liability and accident benefits insurance and covering licensed vehicles owned or operated by the Contractor.

**GC 6.03.04                    Aircraft and Watercraft Liability Insurance**

**GC 6.03.04.01                Aircraft Liability Insurance**

.01    Aircraft liability insurance with respect to owned or non-owned aircraft used directly or indirectly in the performance of the Work, including use of additional premises, shall be subject to limits of not less than \$5,000,000 inclusive per occurrence for bodily injury, death, and damage to property including loss of use thereof, and limits of not less than \$5,000,000 for aircraft passenger hazard. Such insurance shall be in a form acceptable to the Owner. The policies shall be endorsed to provide the Owner with not less than 30 Days written notice in advance of cancellation, change, or amendment restricting coverage.

**GC 6.03.04.02                Watercraft Liability Insurance**

.01    Watercraft liability insurance with respect to owned or non-owned watercraft used directly or indirectly in the performance of the Work, including use of additional premises, shall be subject to limits of not less than \$5,000,000 inclusive per occurrence for bodily injury, death, and damage to property including loss of use thereof. Such insurance shall be in a form acceptable to the Owner. The policies shall be endorsed to provide the Owner with not less than 30 Days written notice in advance of cancellation, change, or amendment restricting coverage.

**GC 6.03.05                    Property and Boiler Insurance**

**GC 6.03.05.01                Property Insurance**

.01    All risks property insurance shall be in the name of the Contractor, with the Owner and the Contract Administrator named as additional insureds, insuring not less than the sum of the amount of the Contract price and the full value, as may be stated in the Contract Documents, of Material that is specified to be provided by the Owner for incorporation into the Work.

**GC 6.03.05.02                Boiler Insurance**

.01    Boiler insurance insuring the interests of the Contractor, the Owner and the Contract Administrator for not less than the replacement value of boilers and pressure vessels forming part of the Work, shall be in a form acceptable to the Owner.

**GC 6.03.05.03                Use and Occupancy of the Work Prior to Completion**

.01    Should the Owner wish to use or occupy part or all of the Work prior to Substantial Performance, the Owner shall give 30 Days written notice to the Contractor of the intended purpose and extent of such use or occupancy. Prior to such use or occupancy, the Contractor shall notify the Owner in writing of the additional premium cost, if any, to maintain property and boiler insurance, which shall be at the Owner's expense. If because of such use or occupancy the Contractor is unable to provide coverage, the Owner upon written notice from the Contractor and prior to such use or occupancy shall provide, maintain, and

pay for property and boiler insurance insuring the full value of the Work, including coverage for such use or occupancy, and shall provide the Contractor with proof of such insurance. The Contractor shall refund to the Owner the unearned premiums applicable to the Contractor's policies upon termination of coverage.

- .02 The policies shall provide that in the event of a loss or damage, payment shall be made to the Owner and the Contractor as their respective interests may appear. The Contractor shall act on behalf of both the Owner and the Contractor for the purpose of adjusting the amount of such loss or damage payment with the insurers. When the extent of the loss or damage is determined, the Contractor shall proceed to restore the Work. Loss or damage shall not affect the rights and obligations of either party under the Contract, except that the Contractor shall be entitled to such reasonable extension of Contract Time relative to the extent of the loss or damage as the Contract Administrator may decide in consultation with the Contractor.

#### **GC 6.03.05.04 Payment for Loss or Damage**

- .01 The Contractor shall be entitled to receive from the Owner, in addition to the amount due under the Contract, the amount at which the Owner's interest in restoration of the Work has been appraised, such amount to be paid as the restoration of the Work proceeds, and according to the requirements of section GC 8.0, Measurement and Payment. In addition, the Contractor shall be entitled to receive from the payments made by the insurers the amount of the Contractor's interest in the restoration of the Work.
- .02 The Contractor shall be responsible for deductible amounts under the policies, except where such amounts may be excluded from the Contractor's responsibility by the terms of this Contract.
- .03 In the event of a loss or damage to the Work arising from the action or omission of the Owner or others, the Owner shall pay the Contractor the cost of restoring the Work as the restoration of the Work proceeds and according to the requirements of section GC 8.0, Measurement and Payment.

#### **GC 6.03.06 Contractor's Equipment Insurance**

- .01 All risks Contractor's Equipment insurance covering construction equipment used by the Contractor for the performance of the Work, including boiler insurance on temporary boilers and pressure vessels, shall be in a form acceptable to the Owner and shall not allow subrogation claims by the insurer against the Owner. The policies shall be endorsed to provide the Owner with not less than 30 Days written notice in advance of cancellation, change, or amendment restricting coverage. Subject to satisfactory proof of financial capability by the Contractor for self-insurance of the Contractor's Equipment, the Owner agrees to waive the equipment insurance requirement, and for the purpose of this Contract, the Contractor shall be deemed to be insured. This policy shall be amended to provide permission for the Contractor to grant prior releases with respect to damage to the Contractor's Equipment.

#### **GC 6.03.07 Insurance Requirements and Duration**

- .01 Each insurance policy as noted in the Contract Documents shall be in effect from the date of commencement of the Work until 10 Days after the date of Final Acceptance of the Work, as set out in the Final Acceptance Certificate.
- .02 The Contractor shall provide the Owner, on a form acceptable to the Owner, proof of insurance prior to commencement of the Work and signed by an officer of the Contractor and either the underwriter or the broker.
- .03 The Contractor shall, on request, promptly provide the Owner with a certified true copy of each insurance policy exclusive of information pertaining to premium or premium bases used by the insurer to determine the cost of the insurance. The certified true copy shall include the signature by an officer of the Contractor and in addition, a signature by an officer of the insurer or the under writer or the broker.

- .04 Where a policy is renewed, the Contractor shall provide the Owner, on a form acceptable to the Owner, renewed proof of insurance immediately following completion of renewal.
- .05 Unless specified otherwise, the Contractor shall be responsible for the payment of deductible amounts under the policies.
- .06 If the Contractor fails to provide or maintain insurance as required in subsection GC 6.03, Contractor's Insurance, or elsewhere in the Contract Documents, then the Owner shall have the right to provide and maintain such insurance and give evidence thereof to the Contractor. The Owner's cost thereof shall be payable by the Contractor to the Owner on demand.
- .07 If the Contractor fails to pay the cost of the insurance placed by the Owner within 28 Days of the date on which the Owner made a formal demand for reimbursement of such costs, the Owner may deduct the costs thereof from monies which are due or may become due to the Contractor.

**GC 6.04 Bonding**

- .01 The Contractor shall provide the Owner with the surety bonds in the amount required by the Contract Documents.
- .02 Such bonds shall be issued by a duly licensed surety company authorized to transact a business of suretyship in the Province of Ontario and shall be to the satisfaction of the Owner. The bonds shall be maintained in good standing until the Final Acceptance.

**GC 6.05 Workplace Safety and Insurance Board**

- .01 The Contractor shall provide the Contract Administrator with a copy of a Certificate of Clearance indicating the Contractor's good standing with the Workplace Safety and Insurance Board, as follows:
  - a) Immediately prior to the Contract Administrator authorizing the Contractor to commence Work.
  - b) Prior to issue of the Certificate of Substantial Performance.
  - c) Prior to expiration of the Warranty Period.
  - d) At any other time when requested by the Contract Administrator.

## **SECTION GC 7.0 - CONTRACTOR'S RESPONSIBILITIES AND CONTROL OF THE WORK**

### **GC 7.01 General**

#### **GC 7.01.01 Site Visit**

- .01 The Contractor warrants that the site of the Work has been visited during the preparation of the Tender and the character of the Work and all local conditions that may affect the performance of the Work are known.

#### **GC 7.01.02 Commencement of Work**

- .01 The Contractor shall not commence the Work nor deliver anything to the Working Area until the Contractor has received a written order to commence the work from the Contract Administrator.

#### **GC 7.01.03 Control and Responsibility**

- .01 The Contractor shall have complete control of the Work and shall effectively direct and supervise the Work so as to ensure conformity with the Contract Documents. The Contractor shall be responsible for construction means, methods, techniques, sequences, and procedures and for coordinating the various parts of the Work.
- .02 The Contractor shall provide adequate labour, Equipment, and Material to ensure the completion of the Contract according to the Contract Documents. The Work shall be performed as vigorously and as continuously as weather conditions or other interferences may permit.
- .03 The Contractor shall have the sole responsibility for the design, erection, operation, maintenance, and removal of temporary structures and other temporary facilities and the design and execution of construction methods required in their use.
- .04 Notwithstanding clause GC 7.01.03, where the Contract Documents include designs for temporary structures and other temporary facilities or specify a method of construction in whole or part, such facilities and methods shall be considered to be part of the design of the Work, and the Contractor shall not be held responsible for that part of the design or the specified method of construction. The Contractor shall, however, be responsible for the execution of such design or specified method of construction in the same manner that the Contractor is responsible for the execution of the Work.
- .05 The Contractor shall comply with and conform to all statutes, laws, by-laws, regulations, requirements, ordinances, notices, rulings, orders, directives and policies of the municipal, provincial and federal governments and any other lawful authority and all court orders, judgments and declarations of a court of competent jurisdiction (collectively referred to as the "Laws"), applicable to the Work to be provided by, and the undertakings and obligations of, the Contractor under this Contract.

#### **GC 7.01.04 Compliance with the Occupational Health and Safety Act**

- .01 The Contractor shall execute the terms of the Contract in strict compliance with the requirements of the *Occupational Health and Safety Act*, R.S.O. 1990, c.O.1, as amended, (the "Act") and Ontario Regulation 213/91, as amended, (that regulates Construction Projects) and any other regulations as amended under *the Act* (the "Regulations") that may affect the performance of the Work, as the "Constructor" or "employer," as defined by *the Act*, as the case may be. The Contractor shall ensure that:
- a) Worker safety is given priority in planning, pricing, and performing the Work;
  - b) The Contractor's officers and supervisory employees have a working knowledge of the duties of a "Constructor" and "employer" as defined by *the Act* and the provisions of the Regulations applicable to the Work, and a personal commitment to comply with them;

- c) A copy of the most current version of *the Act* and the Regulations are available at the Contractor's office within the Working Area, or, in the absence of an office, in the possession of the supervisor responsible for the performance of the Work;
  - d) Workers employed to carry out the Work possess the knowledge, skills, and protective devices required by law or recommended for use by a recognized industry association to allow them to work in safety;
  - e) The Contractor's supervisory employees are "Competent Persons" as defined in the OHSA, and carry out their duties in a diligent and responsible manner with due consideration for the health and safety of the workers;
  - f) All Subcontractors and their workers are properly protected from injury while they are at the Working Area; and
  - g) Following execution of the Contract and prior to the issuance of the order to commence by the Owner, upon request the Contractor submits to the Contract Administrator a copy of the Notice of Project issued to the Ministry of Labour.
- .02 When requested, the Contractor shall provide the Owner with a copy of its health and safety policy and program at the pre-start meeting and shall respond promptly to requests from the Owner for confirmation that its methods and procedures for carrying out the Work comply with *the Act* and Regulations. The Contractor shall cooperate with representatives of the Owner and the inspectors appointed to enforce *the Act* and the Regulations in any investigations of worker health and safety in the performance of the Work. The Contractor shall indemnify and save the Owner harmless from any additional expense that the Owner may incur to have the Work performed as a result of the Contractor's failure to comply with the requirements of *the Act* and the Regulations.
- .03 Prior to commencement of the Work, the Contractor shall provide to the Contract Administrator a list of those products controlled under the Workplace Hazardous Materials Information System "WHMIS", which the Contractor expects to use on the Contract. Related Safety Data Sheets shall accompany the submission. All containers used in the application of products controlled under "WHMIS" shall be labelled. The Contractor shall notify the Contractor Administrator in writing of changes in the products to be used and provide relevant Safety Data Sheets.
- .04 During the course of the Work, the Contractor shall furnish forthwith to the Contract Administrator a copy of all correspondence, reports, orders or charges respecting occupational health and safety, including under *the Act*, *Technical Standards and Safety Act*, 2000, S.O. 2000, c.16 as amended, and the Criminal Code, R.S.C., 1985, c. C-46 as amended, which are received by, or which come to the notice of, the Contractor that apply or are relevant to any of the Work or activities conducted under the terms of the Contract.
- .05 Nothing in this Contract shall be construed as requiring the Owner to monitor or approve the workplace health and safety practices of the Contractor.

**GC 7.01.05 Contractor's Representatives**

- .01 The Contractor shall have an authorized representative on the site while any Work is being performed, to supervise the Work and act for or on the Contractor's behalf. Prior to commencement of construction, the Contractor shall notify the Contract Administrator of the names, addresses, positions, and cell phone, and telephone numbers of the Contractor's representatives who can be contacted at any time to deal with matters relating to the Contract, and update as necessary.
- .02 The Contractor shall designate a person to be responsible for traffic control and work zone safety. The designated person shall be a competent worker who is qualified because of:

- a) Knowledge, training, and experience to perform the duties;
- b) Is familiar with Book 7 of the Ontario Traffic Manual; and
- c) Has knowledge of all potential or actual danger to workers and motorists.

Prior to the commencement of construction, the Contractor shall notify the Contract Administrator of the name; address; position; cell phone, and telephone numbers of the designated person, and update as necessary. The designated person may have other responsibilities, including other construction sites, and need not be present in the Working Area at all times.

**GC 7.01.06 Assistance to the Contract Administrator**

- .01 The Contractor shall, at no additional cost to the Owner, furnish all reasonable aid, facilities, and assistance required by the Contract Administrator for the proper inspection and examination of the Work or the taking of measurements for the purpose of payment.

**GC 7.01.07 Schedule**

- .01 The Contractor shall prepare and update, as required, a construction schedule of operations, indicating the proposed methods of construction and sequence of Work and the time the Contractor proposes to complete the various items of Work within the time specified in the Contract Documents. The schedule shall be submitted to the Contract Administrator within 14 Days from the Contract award. If the Contractor's schedule is materially affected by changes in the work, the Contractor shall submit an updated construction schedule, if requested by the Contract Administrator, within 7 Days of the request. This updated schedule shall show how the Contractor proposes to perform the balance of the Work, to complete the Work within the time specified in the Contract Documents.
- .02 For Contracts with a specified number of Working Days, the construction time shown on the initial schedule shall not exceed the specified number of Working Days. The activities on the critical path shall assist the Contract Administrator in determining the Controlling Operation for the purpose of the charging of Working Days. The construction schedule shall include all non-working periods and appropriate allowances for Inclement Weather.
- .03 For Contracts which specify a Contract Time, the construction time shown on the initial construction schedule shall not extend beyond the specified Contract Time. The construction schedule shall include all non-working periods and appropriate allowances for Inclement Weather.

**GC 7.01.08 Errors and Inconsistencies Relating to the Contract**

- .01 Where the Contractor finds any error, inconsistency, or omission relating to the Contract, the Contractor shall promptly report it to the Contract Administrator and shall not proceed with the activity affected until receiving direction from the Contract Administrator.
- .02 The Contractor shall promptly notify the Contract Administrator in writing if the subsurface conditions observed in the Working Area differ materially from those indicated in the Contract Documents.

**GC 7.01.09 Utilities**

- .01 The Contractor shall arrange with the appropriate Utility authorities for the stake out of all underground Utilities and service connections that may be affected by the Work. The Contractor shall observe the location of the stake outs prior to commencing the Work and if there is a discrepancy between the location of the stake outs and the locations shown on the Contract Documents, that may affect the Work, the Contractor shall immediately notify the Contract Administrator and the affected Utility companies, in order to resolve the discrepancy. The Contractor shall be responsible for any damage done to the underground

Utilities and service connections by the Contractor's forces during construction if the stake out locations are within the tolerances given in clause GC 2.01.01 (a).

- .02 In the case of damage to or interference with any Utilities, pole lines, pipe lines, conduits, farm tiles, or other public or privately-owned works or property, the Contractor shall immediately notify the Owner, Contract Administrator, and the owner of the works of the location and details of such damage or interference.

## **GC 7.02                      Monuments and Layout**

- .01 Prior to commencement of construction, the Contract Administrator and the Contractor shall locate on site those Monuments that delineate the Working Area and may be used to lay out the Work, all as shown on the Contract Drawings. Property Monuments shall be inventoried in the report format required by the Owner.
- .02 These Monuments shall be protected by highly visible T-bars or 1.0 metre tall stakes with survey ribbon set within 0.3 metres of the Monument.
- .03 The Contractor shall be responsible for the preservation of all Property Monuments while the Work is in progress, except those Property Monuments that must be removed to facilitate the Work as identified and agreed by the Contractor and Contract Administrator. Monuments removed to facilitate the Work shall be replaced at the Owner's expense, and all others shall be replaced at the Contractor's expense.
- .04 All Monuments disturbed, damaged, or removed by the Contractor's operations shall be documented in the inventory report and replaced under the supervision of an Ontario Land Surveyor.
- .05 The Monument inventory report referred to in clauses GC 7.02.01 and GC 7.02.04 shall include as a minimum:
  - a) Contract number, Contract name, Contract Administrator's name;
  - b) Project/site construction limits;
  - c) Rough location, type, identification number, and condition of each Monument before and after construction;
  - d) The solutions for protection of the Monuments that may be impacted by construction;
  - e) Reference ties;
  - f) A summary of those Monuments affected by the Work and how they were reset or replaced, and by what type of Monument.
- .06 At no extra cost to the Owner, the Contractor shall provide the Contract Administrator with such materials and devices as may be necessary to lay out the baseline and benchmarks, and as may be necessary for the inspection of the Work.
- .07 The Contractor shall provide qualified personnel to lay out and establish all lines and grades necessary for construction. The Contractor shall notify the Contract Administrator of any layout work carried out, so that the same may be checked by the Contract Administrator.
- .08 The Contractor shall install and maintain substantial alignment markers and secondary benchmarks as may be required for the proper execution of the Work. The Contractor shall supply one copy of all alignment and grade sheets to the Contract Administrator.

- .09 The Contractor shall assume full responsibility for alignment, elevations, and dimensions of each and all parts of the Work, regardless of whether the Contractor's layout work has been checked by the Contract Administrator.
- .10 All stakes, marks, and reference points shall be carefully preserved by the Contractor. In the case of their destruction or removal, for any reason, before the end of the Contract Time such stakes, marks, and reference points shall be replaced, unless otherwise mutually agreed between the Contractor and the Contract Administrator, at the Contractor's expense.
- .11 Benchmarks and survey monuments identified in the Contract Documents shall be protected by the Contractor. In the case of their destruction or removal, such benchmarks and survey monuments shall be replaced by the Owner at the Contractor's expense.

**GC 7.03 Working Area**

- .01 The Contractor shall maintain the Working Area in a tidy condition and free from the accumulation of debris and prevent dust nuisance, mud, and ponding water, other than that caused by the Owner or others.
- .02 The Contractor's sheds, site offices, toilets, other temporary structures, and storage areas for Material and Equipment shall be grouped in a compact manner, maintained in a neat and orderly condition at all times and removed upon completion of the Work.
- .03 The Contractor shall confine the construction operations to the Working Area. Should the Contractor require additional space, the Contractor shall obtain such space at no additional cost to the Owner.
- .04 The Contractor shall not enter upon or occupy any private property for any purpose, unless the Contractor has received prior written permission from the property owner.
- .05 Upon completion of the Contract, the Working Area used by the Contractor shall be restored to its original condition or better unless otherwise specified in the Contract Documents including the removal of all excavated and stockpiled materials at the Contractor's expense.

**GC 7.04 Damage by Vehicles or Other Equipment**

- .01 If at any time, in the opinion of the Contract Administrator, damage is being done or is likely to be done to any Roadway or any improvement thereon, outside the Working Area, by the Contractor's vehicles or other Equipment, whether licensed or unlicensed Equipment, the Contractor shall, on the direction of the Contract Administrator, and at no extra cost to the Owner, make changes or substitutions for such vehicles or Equipment, and shall alter loadings, or in some other manner, remove the cause of such damage to the satisfaction of the Contract Administrator.

**GC 7.05 Excess Loading of Motor Vehicles**

- .01 Where a vehicle is hauling Material for use on the Work, in whole or in part; upon a Highway; and where motor vehicle registration is required for such vehicle, the Contractor shall not cause or permit such vehicle to be loaded beyond the legal limit specified in the *Highway Traffic Act*, R.S.O. 1990, c.H.8, as amended, whether such vehicle is registered in the name of the Contractor or otherwise, except where there are designated areas within the Working Area where overloading is permitted. The Contractor shall bear the onus of weighing disputed loads.

**GC 7.06 Maintaining Roads and Detours**

- .01 Unless otherwise specified in the Contract Documents, if an existing Roadway is affected by construction, it shall be kept open to both vehicular and pedestrian traffic.

- .02 Subject to the approval of the Contract Administrator, the Contractor shall, at no additional cost to the Owner, be responsible for providing and maintaining for the duration of the Work an alternative route for both pedestrian and vehicular traffic through the Working Area according to the OTM, whether along the existing Highway under construction or on a detour road beside or adjacent to the Highway under construction.
- .03 Subject to the approval of the Contract Administrator, the Contractor may block traffic for short periods of time to facilitate construction of the Work according to the OTM. Any temporary lane closures shall be kept to a minimum.
- .04 The Contractor shall not be required to maintain a road through the Working Area until such time as the Contractor has commenced operations or during seasonal shut down or on any part of the Contract that has been accepted according to these General Conditions. The Contractor shall not be required to apply de-icing chemicals or abrasives or carry out snowplowing.
- .05 Where only localized and separated sections of the Highway are affected by the Contractor's operations, the Contractor shall not be required to maintain intervening sections of the Highway until such times as these sections are located within the limits of the Highway affected by the Contractor's general operations under the Contract.
- .06 Where the Contract Documents provide for or the Contract Administrator requires detours at specific locations, payment for the construction of the detours and, if required, for the subsequent removal of the detours, shall be made at the Contract prices appropriate to such Work.
- .07 Compensation for all labour, Equipment, and Materials to do this Work shall be at the Contract prices appropriate to the Work and, where there are no such prices, at negotiated prices. Notwithstanding the foregoing, the cost of blading required to maintain the surface of such roads and detours shall be deemed to be included in the prices bid for the various tender items and no additional payment shall be made.
- .08 Where Work under the Contract is discontinued for any extended period, including seasonal shutdown, the Contractor shall, when directed by the Contract Administrator, open and place the Roadway and detours in a passable, safe, and satisfactory condition for public travel.
- .09 Where the Contractor constructs a detour that is not specifically provided for in the Contract Documents or required by the Contract Administrator, the construction of the detour and, if required, the subsequent removal shall be performed at the Contractor's expense. The detour shall be constructed and maintained to structural and geometric standards approved by the Contract Administrator. Removal and site restoration shall be performed as directed by the Contract Administrator.
- .10 Where, with the prior written approval of the Contract Administrator, the Highway is closed and the traffic diverted entirely off the Highway to any other Highway, the Contractor shall, at no extra cost to the Owner, supply, erect, and maintain traffic control devices according to the OTM.
- .11 Compliance with the foregoing provisions shall in no way relieve the Contractor of its obligations under subsection GC 6.01, Protection of Work, Persons, and Property, dealing with the Contractor's responsibility for damage claims, except for claims arising on sections of Highway within the Working Area that are being maintained by others.

**GC 7.07 Access to Properties Adjoining the Work and Interruption of Utility Services**

- .01 The Contractor shall provide at all times and at no extra cost to the Owner:
  - a) Safe and adequate pedestrian and vehicular access;
  - b) Continuity of Utility services; and

c) Access for emergency response services;

to properties adjoining the Working Area.

- .02 The Contractor shall provide at all times and at no extra cost to the Owner access to fire hydrants, water and gas valves, and all other Utilities located in the Working Area.
- .03 Where any interruptions in the supply of Utility services are required and are authorized by the Contract Administrator, the Contractor shall give the affected property owners notice according to subsection GC 7.11, Notices by the Contractor, and shall arrange such interruptions so as to create a minimum of interference to those affected.

**GC 7.08 Approvals and Permits**

- .01 Except as specified in subsection GC 4.02, Approval and Permits, the Contractor shall obtain and pay for any permits, licences, and certificates, which at the date of tender closing, are required for the performance of the Work.
- .02 The Contractor shall arrange for all necessary inspections required by the approvals and permits specified in clause GC 7.08.01, Approvals and Permit.

**GC 7.09 Suspension of Work**

- .01 The Contractor shall, upon written notice from the Contract Administrator, discontinue or delay any or all of the Work and Work shall not be resumed until the Contract Administrator so directs in writing. Delays, in these circumstances, shall be administered according to subsection GC 3.07, Delays.

**GC 7.10 Contractor's Right to Stop the Work or Terminate the Contract**

- .01 If the Owner is adjudged bankrupt or makes a general assignment for the benefit of creditors because of insolvency or if a receiver is appointed because of insolvency, the Contractor may, without prejudice to any other right or remedy the Contractor may have, by giving the Owner or receiver or trustee in bankruptcy written notice, terminate the Contract.
- .02 If the Work is stopped or otherwise delayed for a period of 30 Days or more under an order of a court or other public authority and provided that such order was not issued as the result of an act or fault of the Contractor or of anyone directly employed or engaged by the Contractor, the Contractor may, without prejudice to any other right or remedy the Contractor may have, by giving the Owner written notice, terminate the Contract.
- .03 The Contractor may notify the Owner in writing, with a copy to the Contract Administrator, that the Owner is in default of contractual obligations if:
  - a) The Contract Administrator fails to issue certificates according to the provisions of section GC 8.0, Measurement and Payment;
  - b) The Owner fails to pay the Contractor, within 28 Days of the due dates identified in clause GC 8.02.04, Certification and Payment, the amounts certified by the Contract Administrator or within 28 Days of an award by an arbitrator or court; or
  - c) The Owner fails to comply with the requirements of the Contract.
- .04 The Contractor's written notice to the Owner shall advise that if the default is not corrected in the 7 Days immediately following receipt of the written notice, the Contractor may, without prejudice to any other right or remedy the Contractor may have, stop the Work or terminate the Contract.

- .05 If the Contractor terminates the Contract under the conditions set out in subsection GC 7.10, Contractor's Right to Stop the Work or Terminate the Contract, the Contractor shall be entitled to be paid for all Work performed according to the Contract Documents and for any losses or damage as the Contractor may sustain as a result of the termination of the Contract.

**GC 7.11 Notices by the Contractor**

- .01 Before any Work is carried out that may affect the property or operations of any Ministry or agency of government or any person; company; partnership; or corporation, including a municipal corporation or any board or commission thereof, and in addition to such notices of the commencement of specified operations as are prescribed elsewhere in the Contract Documents, the Contractor shall give at least 48 hours advance written notice of the date of commencement of such Work to the person, company, partnership, corporation, board, or commission so affected.

**GC 7.12 Environmental Incident Management under Legislation Protecting the Environment and Natural Resources**

- .01 The Contractor shall be in strict compliance with the requirements of the following legislation, as amended, regarding environmental incidents under the control of the Contractor or that are a result of the Contractor's operations:
- a) *Environmental Protection Act*, R.S.O. 1990, c. E.19
  - b) *Fisheries Act*, R.S.C. 1985, c. F-14
  - c) *Technical Standards and Safety Act*, 2000, S.O. 2000, c. 16
  - d) *Pesticides Act*, R.S.O. 1990, c. P.11
  - e) *Ontario Water Resources Act*, R.S.O. 1990, c. O.40
  - f) *Transportation of Dangerous Goods Act*, 1992, S.C.1992, c. 34
- .02 The requirements of the legislation listed in clause GC 7.12.01 include but are not restricted to:
- a) Immediate containment of the material, pollutant, contaminant, deleterious substance, or dangerous good;
  - b) Immediate notification of the environmental incident to the proper authority; and
  - c) Clean up and restoration of the environment to preconditions.
- .03 The Contractor shall possess a plan demonstrating that environmental incidents shall be managed to satisfy the requirements of clauses GC 7.12.01 and GC 7.12.02.
- .04 The Contractor shall provide a copy of the environmental incident plan to the Contract Administrator when required and shall inform the Contract Administrator immediately of:
- a) An environmental incident when it occurs; and
  - b) Any actions taken or intended to be taken by the Contractor regarding the environmental incident.
- .05 The Contractor shall indemnify and save the Owner harmless from any additional expense that the Owner may incur to have the Work performed as a result of the Contractor's failure to comply with the requirements of the legislation listed in clause GC 7.12.01.

**GC 7.13                      Obstructions**

- .01 Except as otherwise noted in these General Conditions, the Contractor assumes all the risks and responsibilities arising out of any obstruction encountered in the performance of the Work and any traffic conditions, including traffic conditions on any Highway or road giving access to the Working Area caused by such obstructions, and the Contractor shall not make any claim against the Owner for any loss, damage, or expense occasioned thereby.
- .02 Where the obstruction is an underground Utility or other human-made object, the Contractor shall not be required to assume the risks and responsibilities arising out of such obstruction, unless the location of the obstruction is shown on the Plans or described in the Contract Documents and the location so shown is within the tolerance specified in clause GC 2.01.01 a), or unless the presence and location of the obstruction has otherwise been made known to the Contractor or could have been determined by the visual site investigation made by the Contractor according to these General Conditions.
- .03 During the course of the Contract, it is the Contractor's responsibility to consult with Utility companies or other appropriate authorities for further information in regard to the exact location of these Utilities, to exercise the necessary care in construction operations, and to take such other precautions as are necessary to safeguard the Utilities from damage.

**GC 7.14                      Limitations of Operations**

- .01 Except for such Work as may be required by the Contract Administrator to maintain the Work in a safe and satisfactory condition, the Contractor shall not carry out operations under the Contract on Saturdays, Sundays, and any holidays recognized by the Owner without permission in writing from the Contract Administrator.
- .02 The Contractor shall cooperate and coordinate the Work with other Contractors, Utility companies, and the Owner and they shall be allowed access to their Work or plant at all reasonable times.

**GC 7.15                      Cleaning Up Before Acceptance**

- .01 Upon attaining Substantial Performance of the Work, the Contractor shall remove surplus materials, tools, and Equipment not required for the performance of the remaining Work. The Contractor shall also remove all temporary works and debris other than that caused by the Owner or others and leave the Work and Working Area clean and suitable for occupancy by the Owner, unless otherwise specified.
- .02 The Work shall not be deemed to have reached Completion until the Contractor has removed surplus materials, tools, and Equipment. The Contractor shall also have removed debris, other than that caused by the Owner, or others.

**GC 7.16                      Warranty**

- .01 Unless otherwise specified in the Contract Documents for certain Materials or components of the Work, the Contractor shall be responsible for the proper performance of the Work only to the extent that the design and standards permit such performance.
- .02 Subject to the previous paragraph the Contractor shall correct promptly, at no additional cost to the Owner, defects or deficiencies in the Work that appear:
  - a) Prior to and during the period of 12 months from the date of Substantial Performance of the Work, as set out in the Certificate of Substantial Performance of the Work,
  - b) Where there is no Certificate of Substantial Performance, 12 months from the date of Completion of the Work as set out in the Completion Certificate, or

- c) Such longer periods as may be specified in the Contract Documents for certain Materials or some of the Work.

The Contract Administrator shall promptly give the Contractor written notice of observed defects or deficiencies.

- .03 The Contractor shall correct or pay for damage resulting from corrections made under the requirements of clause GC 7.16.02.

**GC 7.17 Contractor's Workers**

- .01 The Contractor shall only employ orderly, competent, and skillful workers to do the Work and whenever the Contract Administrator shall inform the Contractor in writing that any worker or workers involved in the Work are, in the opinion of the Contract Administrator, incompetent, or disorderly such worker or workers shall be removed from the Work and shall not be employed on the Work again without the consent in writing of the Contract Administrator.

**GC 7.18 Drainage**

- .01 During construction and until the Work is completed, the Contractor shall make all reasonable efforts to keep all portions of the Work properly and efficiently drained, to at least the same degree as that of the existing drainage conditions.

## **SECTION GC 8.0 - MEASUREMENT AND PAYMENT**

### **GC 8.01 Measurement**

#### **GC 8.01.01 Quantities**

- .01 The Contract Administrator shall make an Estimate in writing once a month, unless otherwise specified in the Contract Documents, of the quantity of Work performed and provide such Estimate to the Contractor within 10 Days of the Cut-Off Date.
- .02 Quantities for progress payments shall be construed and held to be approximate. The final quantities for the issuance of the Completion Payment shall be based on the measurement of Work completed.
- .03 Measurement of the quantities of the Work performed may be either by Actual Measurement or by Plan Quantity principles as indicated in the Contract Documents. Adjustments to Plan Quantity measurements shall normally be made using Plan Quantity principles but may, where appropriate, be made using Actual Measurements. Those items identified on the Tender by the notation (P) in the unit column shall be paid according to the Plan Quantity. Items where the notation (P) does not occur shall be paid according to Actual Measurement or lump sum.

#### **GC 8.01.02 Variations in Tender Quantities**

- .01 Where it appears that the quantity of work to be done or Material to be supplied or both by the Contractor under a unit price tender item may exceed or be less than the tender quantity, the Contractor shall proceed to do the work or supply the Material or both required to complete the tender item and payment shall be made for the actual amount of work done or Material supplied or both at the unit prices stated in the Tender except as provided below:
  - a) In the case of a Major Item where the quantity of work performed or Material supplied or both by the Contractor exceeds the tender quantity by more than 15%, either party to the Contract may make a written request to the other party to negotiate a revised unit price for that portion of the work performed or Material supplied or both which exceeds 115% of the tender quantity. The negotiation shall be carried out as soon as reasonably possible. Any revision of the unit price shall be based on the actual cost of doing the work or supplying the Material or both under the tender item plus a reasonable allowance for profit and applicable overhead.
  - b) In the case of a Major Item where the quantity of work performed or Material supplied or both by the Contractor is less than 85% of the tender quantity, the Contractor may make a written request to negotiate for the portion of the actual overheads and fixed costs applicable to the amount of the underrun in excess of 15% of the tender quantity. For purposes of the negotiation, the overheads and fixed costs applicable to the item are deemed to have been prorated uniformly over 100% of the tender quantity for the item. Overhead costs shall be confirmed by a statement certified by the Contractor's senior financial officer or auditor and may be audited by the Owner. Alternatively, where both parties agree, an allowance equal to 10% of the unit price on the amount of the underrun in excess of 15% of the tender quantity shall be paid.

Written requests for compensation must be received no later than 60 Days after the issuance of the Completion Payment.

### **GC 8.02 Payment**

#### **GC 8.02.01 Non-Resident Contractor**

- .01 If the Contractor is not a registered entity in Ontario, the Contractor shall obtain all necessary approvals, consents, permits, licences, certificates, registrations, and other authorizations prior to execution of the Contract.

- .02 The Contractor shall ensure that all Subcontractors the Contractor proposes to use for carrying out any of the Work required by the Contract and who are not a registered entity in Ontario have obtained all necessary approvals, consents, permits, certificates, registrations, and other authorizations prior to execution of the subcontract.

**GC 8.02.02 Price for Work**

- .01 Prices for the Work shall be full compensation for all labour, Equipment and Material required to do the work. The term "all labour, Equipment, and Material" shall include Hand Tools, supplies, and other incidentals.
- .02 Payment, for Work which is identified in the Contract Documents but not specifically detailed as part of any one item shall be deemed to be included in the items with which it is associated.

**GC 8.02.03 Advance Payments for Material**

- .01 The Owner shall make advance payments for Material intended for incorporation in the Work upon the written request of the Contractor and according to the following terms and conditions:
- a) The Contractor shall deliver the Material to a site approved by the Contract Administrator and the Contractor shall, in advance of receipt of the shipment of the Material, arrange for adequate and proper storage facilities.
  - b) The value of aggregates, processed and stockpiled, shall be assessed by the following procedure:
    - i. Sources Other Than Commercial
      - (A) Granular A, B, BI, BII, BIII, M, and O shall be assessed at the rate of 60% of the Contract price.
      - (B) Coarse and fine aggregates for hot mix asphaltic concrete, surface treatment and cement concrete shall be assessed at the rate of 25% of the Contract price for each aggregate stockpiled.
    - ii. Commercial Sources
      - (A) Payment for separated coarse and fine aggregates shall be considered at the above rate when such Materials are stockpiled at a commercial source where further processing is to be carried out before incorporating such Materials into a final product. Advance payments for other Materials located at a commercial source shall not be made.
  - c) Payment for all other Materials, unless otherwise specified elsewhere in the Contract Documents, shall be based on the invoice price, and the Contractor shall submit proof of cost to the Contract Administrator before payment can be made by the Owner.
  - d) The payment for all Materials shall be prorated against the appropriate tender item by paying for sufficient units of the item to cover the value of the Material. Such payment shall not exceed 80% of the Contract price for the item.
  - e) All Materials for which the Contractor wishes to receive advance payment shall be placed in the designated storage location immediately upon receipt of the Material and shall thenceforth be held by the Contractor in trust for the Owner as collateral security for any monies advanced by the Owner and for the due completion of the Work. The Contractor shall not exercise any act of ownership inconsistent with such security, or remove any Material from the storage locations, except for inclusion in the Work, without the consent, in writing, of the Contract Administrator.
  - f) Such materials shall remain at the risk of the Contractor who shall be responsible for any loss, damage, theft, improper use, or destruction of the Material however so caused.

- .02 Where the Owner makes advance payments subject to the conditions listed in clause GC 8.02.03.01, such payment shall not constitute acceptance of the Material by the Owner. Acceptance shall only be determined when the Material meets the requirements of the appropriate specification.

**GC 8.02.04 Certification and Payment**

**GC 8.02.04.01 Progress Payment**

- .01 The Contractor shall submit a Proper Invoice for progress payments monthly or at intervals specified in the Contract Documents after starting the Work on this Contract. The Contractor shall submit the Proper Invoice to the Contract Administrator and to the Owner. This Proper Invoice shall be for work completed at the agreed to Cut-Off Date.
- .02 A Proper Invoice shall include;
- a) the requirements as set out in section 6.1 of the *Construction Act*;
  - b) the quantities of Work performed;
  - c) the value of Work performed;
  - d) any advanced payment for Material;
  - e) the amount of Statutory Holdback, liens, Owner's set-off;
  - f) the amount of any applicable taxes;
  - g) the amount due to the Contractor; and
  - h) any other information that may be prescribed in the Contract Documents.
- .03 Payment shall be made within 28 Days of the submission of the Proper Invoice unless a notice of non-payment has been issued according to the *Construction Act*.
- .04 The Owner shall retain the Statutory Holdback in the form and amount as required under the *Construction Act*.

**GC 8.02.04.02 Certification of Subcontract Completion**

- .01 Before the Work has reached the stage of Substantial Performance, the Contractor may notify the Contract Administrator, in writing that a subcontract is completed satisfactorily and ask that the Contract Administrator certify the completion of such subcontract.
- .02 The Contract Administrator shall issue a Certificate of Subcontract Completion, if the subcontract has been completed in a form satisfactory to the Contract Administrator, and all required inspection and testing of the works covered by the subcontract have been carried out and the results are satisfactory to the Contract Administrator.
- .03 The Contract Administrator shall set out in the Certificate of Subcontract Completion the date on which the subcontract was completed and, within 7 Days of the date the subcontract is certified complete, the Contract Administrator shall give a copy of the certificate to the Contractor and to the Subcontractor concerned.

**GC 8.02.04.03 Subcontract Statutory Holdback Release Certificate and Payment**

- .01 Following receipt of the Certificate of Subcontract Completion, the Owner shall release and pay the Contractor the Statutory Holdback retained in respect of the subcontract. Such release shall be made 61 Days after the date the subcontract was certified complete and providing the Contractor submits the following to the Contract Administrator:
  - a) A document satisfactory to the Contract Administrator that shall release the Owner from all further claims relating to the subcontract, qualified by stated exceptions such as holdback monies;
  - b) Evidence satisfactory to the Contract Administrator that the Subcontractor has discharged all liabilities incurred in carrying out the subcontract;
  - c) A satisfactory clearance certificate or letter from the Workplace Safety and Insurance Board relating to the subcontract; and
  - d) A copy of the contract between the Contractor and the Subcontractor and a satisfactory statement showing the total amount due the Subcontractor from the Contractor.
- .02 Clause GC 8.02.04.03.01 (d), shall only apply to Lump Sum Items and then only when the Contract Administrator specifically requests it.
- .03 Upon receipt of the Statutory Holdback, the Contractor shall forthwith give the Subcontractor the payment due under the subcontract.
- .04 Release of Statutory Holdback by the Owner in respect of a subcontract shall not relieve the Contractor, or the Contractor's Surety, of any of their responsibilities.

**GC 8.02.04.04 Substantial Performance of Work**

- .01 The Contractor, as part of the application for Substantial Performance, shall submit an itemized list of the outstanding work.
- .02 Upon application by the Contractor and when the Contract Administrator has verified that the Contract has been substantially performed, the Contract Administrator shall issue a Certificate of Substantial Performance.
- .03 The Contract Administrator shall set out in the Certificate of Substantial Performance the date on which the Contract was substantially performed and, within 7 Days after signing the said certificate, and shall provide a copy to the Contractor.
- .04 Upon receipt of a copy of the Certificate of Substantial Performance, the Contractor shall forthwith, as required by Section 32(1) Paragraph 5 of the *Construction Act*, as amended, publish a copy of the certificate in the manner set out in the regulations.
- .05 Where the Contractor fails to publish a copy of the Certificate of Substantial Performance as required above within 7 Days after receiving a copy of the certificate signed by the Contract Administrator, the Owner may publish a copy of the certificate at the Contractor's expense.
- .06 Except as otherwise provided for in Section 31 of the *Construction Act*, the 60 Day lien period prior to the release of holdback as referred to in clause GC 8.02.04.05, Substantial Performance Payment and Statutory Holdback Release Payment Certificates, shall commence from the date of publication of the Certificate of Substantial Performance as provided for above.

**GC 8.02.04.05                      Substantial Performance Payment and Substantial Performance Statutory Holdback Release Payment Certificates**

- .01 Prior to the Contract Administrator issuing the Certificate of Substantial Performance, the Contractor shall submit a Proper Invoice for the Work completed. In addition to the requirements specified under section 8.02.04.01.02, the Proper Invoice shall include:
  - a) The value of Work performed to the date of Substantial Performance;
  - b) The value of outstanding or incomplete Work;
  - c) The amount of the Statutory Holdback, allowing for any previous releases of Statutory Holdback to the Contractor in respect of completed subcontracts and deliveries of pre-selected Equipment; and
  - d) The amount due to the Contractor.
- .02 Payment shall be made within 28 Days of the date of submission of the Proper Invoice.
- .03 The Substantial Performance Statutory Holdback Release Payment Certificate shall be a payment certificate releasing to the Contractor the Statutory Holdback due in respect of Work performed up to the date of Substantial Performance. Payment of such Statutory Holdback shall be due 61 Days after the date of publication of the Certificate of Substantial Performance but subject to the provisions of the *Construction Act* and the submission by the Contractor of the following documents:
  - a) A satisfactory Certificate of Clearance from the Workplace Safety and Insurance Board; and
  - b) Proof of publication of the Certificate of Substantial Performance.
- .04 Any amount of security retained shall be identified on the Substantial Performance Payment Certificate.

**GC 8.02.04.06                      Certification of Completion**

- .01 Upon application by the Contractor and when the Contract Administrator has verified that the Contract has reached Completion, the Contract Administrator shall issue a Completion Certificate.
- .02 The Contract Administrator shall set out in the Completion Certificate the date on which the Work was completed and, within 7 Days of signing the said certificate, the Contract Administrator shall provide a copy to the Contractor.

**GC 8.02.04.07                      Completion Payment and Completion Statutory Holdback Release Payment Certificates**

- .01 Prior to the Contract Administrator issuing the Completion Certificate, the Contractor shall submit a Proper Invoice for the Work completed. In addition to the requirements noted under section 8.02.04.01.02, the Proper Invoice shall include:
  - a) Measurement and value of Work at Completion;
  - b) The amount of the further Statutory Holdback based on the value of further Work completed over and above the value of Work completed shown in the Substantial Performance Payment Certificate referred to above; and
  - c) The amount due to the Contractor.
- .02 The Completion Statutory Holdback Release Payment Certificate shall be a payment certificate releasing to the Contractor the further Statutory Holdback. Subject to any outstanding liens and permissible set-offs

and upon submission of a satisfactory Certificate of Clearance from the Workplace Safety and Insurance Board, the Owner shall pay the remaining holdback on the Work done, within 28 Days after the expiration of the 60-Day lien period.

.03 Any amount of security retained shall be identified on the Completion Payment Certificate.

**GC 8.02.04.08 Interest**

.01 Interest due to the Contractor shall be based on simple interest and calculated using the applicable Rate of Interest. Interest shall begin to accrue on an amount that is not paid when it is due to be paid under Part-I of the *Construction Act*, at the prejudgment interest rate determined under subsection 127 (2) of the *Courts of Justice Act* or, if the Contract specifies a different interest rate for this purpose, the greater of the prejudgment interest rate and the interest rate specified in the Contract.

**GC 8.02.04.09 Interest for Late Payment**

.01 Provided the Contractor has complied with the requirements of the Contract, including all documentation requirements, when payment by the Owner to the Contractor for Work performed, or for release of Statutory Holdback, is delayed by the Owner, then the Contractor shall be entitled to receive interest on the outstanding payment at the Rate of Interest, if payment is not received on the dates set out below:

- a) Progress Payment: 28 Days after submission of Proper Invoice;
- b) Subcontract Statutory Holdback Release Payment: 89 Days after the date on which the subcontract was completed;
- c) Substantial Performance Payment: 28 Days after the date of issuance of the certificate;
- d) Substantial Performance Statutory Holdback Release Payment: 89 Days after publication of the Payment Certificate of Substantial Performance;
- e) Completion Payment: 28 Days after the date certified as the date on which the Contract reached Completion; and
- f) Completion Statutory Holdback Release Payment: 89 Days after the date certified as the date that the Work was completed.

.02 If the Contractor has not complied with the requirements of the Contract, including all documentation requirements, prior to expiration of the time periods described in clause GC 8.02.04.09.01, interest shall only begin to accrue when the Contractor has completed those requirements.

**GC 8.02.04.10 Interest for Negotiations and Claims**

.01 Except as hereinafter provided, where a notice of negotiation, notice of intent to claim and the subsequent claims are submitted according to the time limits or procedure or both described by subsection GC 3.13, Claims, Negotiations, Mediation, the Owner shall pay the Contractor the Rate of Interest on the amount of the negotiated price for that part of the Work or on the amount of the settled claim. Such interest shall not commence until 30 Days after the satisfactory completion of that part of the Work.

.02 Where the Contractor fails to give notice of a claim within the time limit prescribed by subsection GC 3.13, Claims, Negotiations, Mediation, interest shall not be paid.

.03 Where a Contractor fails to comply with the 30 Day time limit and the procedures prescribed in clause GC 3.13.03.03 for submission of claims, interest shall not be paid for the delay period.

**GC 8.02.04.11            Owner's Set-Off**

- .01 Pursuant to the *Construction Act*, the Owner may retain from monies owing to the Contractor under this Contract an amount sufficient to cover any outstanding or disputed liabilities, including the cost to remedy deficiencies, the reduction in value of substandard portions of the Work, claims for damages by third parties that have not been determined in writing by the Contractor's insurer, undetermined claims by the Owner, and any assessment due the Workplace Safety and Insurance Board.
- .02 Under these circumstances the Owner will give the Contractor appropriate notice of such action.

**GC 8.02.04.12            Delay in Payment**

- .01 The Owner shall not be deemed to be in default of the Contract provided any delay in payment does not exceed the due dates as defined in clause GC 8.02.04.09.01.

**GC 8.02.05                Payment on a Time and Material Basis**

**GC 8.02.05.01            Definitions**

- .01 For the purpose of clause GC 8.02.05 the following definitions apply:

**Cost of Labour** means the amount of wages, salary, travel, travel time, food, lodging, or similar items and Payroll Burden paid or incurred directly by the Contractor to or in respect of labour and supervision actively and necessarily engaged on the Work based on the recorded time and hourly rates of pay for such labour and supervision but shall not include any payment or costs incurred for general supervision, administration, and management time spent on the entire Work or any wages, salary, or Payroll Burden for which the Contractor is compensated by any payment made by the Owner for Equipment.

**Cost of Material** means the cost of Material purchased or supplied from stock and valued at current market prices for the purpose of carrying out Extra Work by the Contractor or by others, when such arrangements have been made by the Contractor for completing the Work, as shown by itemized invoices.

**Operated Rented Equipment** means Rented Equipment for which an operator is provided by the supplier of the Equipment and for which the rent or lease includes the cost of the operator.

**Payroll Burden** means the payments in respect of workplace insurance, vacation pay, employment insurance, public liability and property damage insurance, sickness and accident insurance, pension fund, and such other welfare and benefit payments forming part of the Contractor's normal labour costs.

**Rented Equipment** means Equipment that is rented or leased for the special purpose of Work on a Time and Material Basis from a person, firm, or corporation that is not an associate of the lessee as the word "associate" is defined by the *Securities Act*, R.S.O. 1990, c.S.5, as amended, and is approved by the Contract Administrator.

**Road Work** means the preparation, construction, finishing, and construction maintenance of roads, streets, Highways, and parking lots and includes all work incidentals thereto other than Work on structures.

**Sewer and Watermain Work** means the preparation, construction, finishing, and construction maintenance of sewer systems and watermain systems, and includes all work incidental thereto other than Work on structures.

**Standby Time** means any period of time that is not considered Working Time and which together with the Working Time does not exceed 10 hours in any one Working Day and during which time a unit of Equipment cannot practically be used on other Work but must remain on the site in order to continue with its assigned task and during which time the unit is in fully operable condition.

**Structure Work** means the construction, reconstruction, repair, alteration, remodelling, renovation, or demolition of any bridge, building, tunnel, or retaining wall and includes the preparation for and the laying of the foundation of any bridge, building, tunnel, or retaining wall and the installation of Equipment and appurtenances incidental thereto.

**The 127 Rate** means the rate for a unit of Equipment as listed in OPSS.PROV 127, Schedule of Rental Rates for Construction Equipment, Including Model and Specification Reference, that is current at the time the work is carried out or for Equipment that is not so listed, the rate that has been calculated by the Owner, using the same principles as used in determining The 127 Rate.

**Work on a Time and Material Basis** means Changes in the Work, Extra Work, and Additional Work approved by the Contract Administrator for payment on a Time and Material basis. The Work on a Time and Material Basis shall be subject to all the terms, conditions, Standard Specifications and provisions of the Contract.

**Working Time** means each period of time during which a unit of Equipment is actively and of necessity engaged on a specific operation and the first 2 hours of each immediately following period during which the unit is not so engaged but during which the operation is otherwise proceeding and during which time the unit cannot practically be transferred to other Work but must remain on the site in order to continue with its assigned tasks and during which time the unit is in a fully operable condition.

**GC 8.02.05.02 Daily Work Records**

.01 Daily Work Records, prepared as the case may be by either the Contractor's representative or the Contract Administrator reporting the labour and Equipment employed and the Material used on each Time and Material project, should be reconciled and signed each Day by both the Contractor's representative and the Contract Administrator. If it is not possible to reconcile the Daily Work Records, then the Contractor shall submit the un-reconciled Daily Work Records with its claim, whereby the resolution of the dispute about the Daily Work Records shall not be resolved until there is a resolution of the claim.

**GC 8.02.05.03 Payment for Work**

.01 Payment as herein provided shall be full compensation for all labour, Equipment, and Material to do the Work on a Time and Material Basis except where there is agreement to the contrary prior to the commencement of the Work on a Time and Material Basis. The payment adjustments on a Time and Material basis shall apply to each individual Change Order authorized by the Contract Administrator.

**GC 8.02.05.04 Payment for Labour**

- .01 The Owner shall pay the Contractor for labour employed on each Time and Material project at 135% of the Cost of Labour up to \$3,500, then at 120% of any portion of the Cost of Labour in excess of \$3,500.
- .02 The Owner shall make payment in respect of Payroll Burden for Work on a Time and Material Basis at the Contractor's actual cost of Payroll Burden.
- .03 At the Owner's discretion, an audit may be conducted in which case the actual Payroll Burden so determined shall be applied to all Time and Material work on the Contract.

**GC 8.02.05.05 Payment for Material**

.01 The Owner shall pay the Contractor for Material used on each Time and Material project at 120% of the Cost of the Material up to \$3,500, then at 115% of any portion of the Cost of Material in excess of \$3,500.

**GC 8.02.05.06            Payment for Equipment**

**GC 8.02.05.06.01        Working Time**

- .01 The Owner shall pay the Contractor for the Working Time of all Equipment, other than Rented Equipment and Operated Rented Equipment, used on the Work on a Time and Material basis at the 127 Rate.
- .02 The Owner shall pay the Contractor for the Working Time of Rented Equipment used on the Work on a Time and Material Basis at 110% of the invoice price approved by the Contract Administrator up to a maximum of 110% of the 127 Rate. This constraint shall be waived when the Contract Administrator approves the invoice price prior to the use of the Rented Equipment.
- .03 The Owner shall pay the Contractor for the Working Time of Operated Rented Equipment used on the Work on a Time and Material Basis at 110% of the Operated Rented Equipment invoice price approved by the Contract Administrator prior to the use of the Equipment on the Work on a Time and Material Basis.

**GC 8.02.05.06.02        Standby Time**

- .01 The Owner shall pay the Contractor for Standby Time of Equipment at 35% of The 127 Rate or 35% of the invoice price whichever is appropriate. The Owner shall pay reasonable costs for Rented Equipment where this is necessarily retained in the Working Area for extended periods agreed to by the Contract Administrator. This shall include Rented Equipment intended for use on other work, but has been idled due to the circumstances giving rise to the Work on a Time and Material Basis.
- .02 In addition, the Owner shall include the Cost of Labour of operators or associated labourers who cannot be otherwise employed during the Standby Time or during the period of idleness caused by the circumstances giving rise to the Work on a Time and Material Basis.
- .03 The Contract Administrator may require Rented Equipment idled by the circumstances giving rise to the Work on Time and Material Basis to be returned to the lessor until the Work requiring the Equipment can be resumed. The Owner shall pay such costs as a result from such return.
- .04 When Equipment is transported, solely for the purpose of the Work on a Time and Material Basis, to or from the Working Area on a Time and Material basis, payment shall be made by the Owner only in respect of the transporting units. When Equipment is moved under its own power it shall be deemed to be working. The method of moving Equipment and the rates shall be subject to the approval of the Contract Administrator.

**GC 8.02.05.07            Payment for Hand Tools**

- .01 Notwithstanding any other provision of this Section, no payment shall be made to the Contractor for or in respect of Hand Tools or Equipment that are tools of the trade.

**GC 8.02.05.08            Payment for Work by Subcontractors**

- .01 Where the Contractor arranges for Work on a Time and Material Basis, or a part of it, to be performed by Subcontractors on a Time and Material basis and has received approval prior to the commencement of such Work, according to the requirements of subsection GC 3.09, Subcontracting by the Contractor, the Owner shall pay the cost of Work on a Time and Material Basis by the Subcontractor calculated as if the Contractor had done the Work on a Time and Material Basis, plus a markup calculated on the following basis:
  - a) 20% of the first \$3,500; plus
  - b) 15% of the amount from \$3,500 to \$12,000; plus

c) 5% of the amount in excess of \$12,000.

- .02 No further markup shall be applied regardless of the extent to which the work is assigned or sublet to others. If Work on a Time and Material Basis is assigned or sublet to a related entity or associated corporation with common ownership to the Contractor as defined by the *Securities Act*, RSO 1990, cS.5, then the Contractor markup is not permitted.

**GC 8.02.05.09 Submission of Invoices**

- .01 At the start of the Work on a Time and Material Basis, the Contractor shall provide the applicable labour and Equipment rates not already submitted to the Contract Administrator during the course of such Work.
- .02 Separate summaries shall be completed by the Contractor. Each summary shall include the Change Directive or Change Order number and covering dates of the Work and shall itemize separately the labour, Materials, and Equipment. Invoices for Materials, Rented Equipment, and other charges incurred by the Contractor on the Work on a Time and Material Basis shall be included with each summary.
- .03 Each month the Contract Administrator shall include with the monthly progress payment, the costs of the Work on a Time and Material Basis incurred during the preceding month all according to the Contract administrative procedures and the Contractor's invoice of the Work on a Time and Material Basis.
- .04 The final summary as per clause 8.02.05.09.02 shall be submitted by the Contractor within 60 Days after the completion of the Work on a Time and Material Basis.

**GC 8.02.05.10 Payment Other Than on a Time and Material Basis**

- .01 Clause GC 8.02.05 does not preclude the option of the Contract Administrator and the Contractor negotiating a Lump Sum Item or unit price payment for Change in the Work, Extra Work, and Additional Work.

**GC 8.02.05.11 Payment Inclusions**

- .01 Except where there is agreement in writing to the contrary, the compensation, as herein provided, shall be accepted by the Contractor as compensation in full for profit and all costs and expenses arising out of the Work on a Time and Material Basis, including all cost of general supervision, administration, and management time spent on the Work on a Time and Material Basis, and no other payment or allowance shall be made in respect of such Work on a Time and Material Basis.

**GC 8.02.06 Final Acceptance Certificate**

- .01 After the acceptance of the Work or, where applicable, after the Warranty Period has expired, the Contract Administrator shall issue the Final Acceptance Certificate. The Final Acceptance Certificate shall not be issued until all known deficiencies have been adjusted or corrected, as the case may be, and the Contractor has discharged all obligations under the Contract.
- .02 Any remaining amount of security shall be released upon Final Acceptance of the Contract.

**GC 8.02.07 Records**

- .01 The Contractor shall maintain and keep accurate Records relating to the Work, Changes in the Work, Extra Work, Additional Work and claims arising therefrom. Such Records shall be of sufficient detail to support the total cost of the Work, Changes in the Work, Extra Work, Additional Work and claims arising therefrom. The Contractor shall preserve all such original Records until 12 months after the Final Acceptance Certificate is issued or until all claims have been settled, whichever is longer. The Contractor shall require that Subcontractors employed by the Contractor preserve all original Records pertaining to

the Work, Changes in the Work, Extra Work, Additional Work and claims arising therefrom for a similar period of time.

- .02 The Owner may inspect and audit the Contractor's Records relating to the Work, Changes in the Work, Extra Work, and Additional Work at any time during the period of the Contract. The Contractor shall supply certified copies of any part of its Records required, whenever requested by the Owner.

**GC 8.02.08                      Taxes**

- .01 Where a change in Canadian Federal or Provincial taxes occurs after the date of tender closing for this Contract, and this change could not have been anticipated at the time of Tender, the Owner shall increase or decrease Contract payments to account for the exact amount of tax change involved.
- .02 Claims for compensation for additional tax cost shall be submitted by the Contractor to the Contract Administrator on forms provided by the Contract Administrator to the Contractor. Such claims for additional tax costs shall be submitted not less than 30 Days after the date of Final Acceptance.
- .03 Where the Contractor benefits from a change in Canadian Federal or Provincial taxes, the Contractor shall submit to the Contract Administrator on forms provided by the Contract Administrator, a statement of such benefits. This statement shall be submitted not later than 30 Days after Final Acceptance.
- .04 Changes in Canadian Federal or Provincial taxes that impact upon commodities, which when left in place form part of the finished Work, or the provision of services, where such services form part of the Work and where the manufacture or supply of such commodities or the provision of such services is carried out by the Contractor or a Subcontractor, are subject to a claim or benefit as detailed above. Services in the latter context means the supply and operation of Equipment, the provision of labour, and the supply of commodities that do not form part of the Work.
- .05 The Contractor shall add the Harmonized Sales Tax (HST) to all invoices.

**GC 8.02.09                      Liquidated Damages**

- .01 When liquidated damages are specified in the Contract and the Contractor fails to complete the Work according to the Contract, the Contractor shall pay such amounts as are specified in the Contract Documents.

## 1. GENERAL

### 1.1 DESCRIPTION OF WORK

- .1 The scope of work, in general terms, involves the installation of a new 250 mm sewer from the Nipigon District Memorial Hospital to the intersection of First Street and Hogan Road. Work will include but not be limited to:
- Mobilization and Demobilization
  - Coordinate access with Nipigon District Memorial Hospital and Township
  - Stage the work to ensure access to either access to the ambulance transfer bay driveway or emergency parking area is available at all times. These areas cannot be closed at the same time.
  - Place and maintain detour signage
  - Establish traffic/pedestrian control and environmental protection.
  - Complete pre-construction survey layout
  - Remove portion of the existing sanitary sewer and sewage pumping station
  - Install new sewer piping and manholes
  - Install new sanitary sewer services
  - Restoration of all disturbed areas.
  - Dispose of materials off-site at designated disposal areas to be identified by the contract administrator.
  - Reconstruct disturbed driveway approaches, walkways, etc.
  - Reconstruct all surface features disturbed during construction
  - All work as indicated on the Drawing and Specifications

**The description of the Work stated above is not, nor is it intended to be, a complete and all-inclusive “Description of Work”.**

### 1.2 LIMITS OF CONTRACT

- .1 The limits of the Contract are the limits of the property and/or road allowances in which the work is to be performed or is otherwise shown on the drawings or described in the contract documents.

### 1.3 PRECONSTRUCTION MEETING

- .1 Following award of the Contract and the instruction to commence the Work, the Contract Administrator will convene a preconstruction meeting with the Owner’s representative, the Contract Administrator and the Contractor.
- .2 The meeting agenda will include:
- i. the appointment and notification of official representatives of participants in the Work;
  - ii. requirements for temporary facilities, site signs, offices, storage sheds, utilities, hoarding, site access and use;
  - iii. Health and Safety issues;
  - iv. site security;

- v. the Work schedule, including the Products delivery schedule;
  - vi. a schedule for submission of shop drawings, samples and similar documents;
  - vii. a schedule for site meetings;
  - viii. a review of administrative procedures, including change notices, change orders, site instructions, record drawings, maintenance manuals, take-over procedures, progress claims;
  - ix. the appointment of inspection and testing agencies or firms
  - x. staging plans;
  - xi. traffic control and detour plans;
  - xii. notices to residents; and
  - xiii. other items as arise at the meeting.
- .3 The Contract Administrator will arrange for a video conference meeting and document the responsibilities and necessary activities of the participants during construction as discussed, and prepare and distribute minutes of the meeting to each attendee.

#### 1.4 SITE MEETINGS

- .1 Site meetings will be held on a regular schedule agreed to at the preconstruction meeting. These meetings shall be attended by a minimum of one representative of the Contract Administrator, one representative of the Township of Nipigon and one representative of the Contractor. Each representation shall be a responsible person capable of expressing the position of the Contractor, Contract Administrator and Township of Nipigon respectively on any matter discussed at the meeting. The progress of the Work will be reviewed at each of these meetings, so the Contractor representative must be capable of discussing the Schedule and making any necessary revisions. In addition to reviewing the progress of the Work, other related matters will be discussed including but not limited to:
- i. review and acceptance of previous meeting minutes;
  - ii. field observations and any problems or conflicts;
  - iii. any problem that may impede Work progress and the construction schedule and corrective measures required;
  - iv. revisions to the construction schedule and the Products delivery schedule; and,
  - v. review of submittal schedules.
- .2 If site meeting are conducted, Contractor to provide suitable accommodation in which to hold site meetings.
- .3 The Township reserves the right to cancel any meeting or call additional meetings on a 48 hour notice.

#### 1.5 SITE PROGRESS RECORDS

- .1 Maintain at the site a permanent written and photographic record of progress of the Work. Make the record available to the Contract Administrator upon request and provide him with a copy if requested. Include in the record each day:
- i. the weather conditions with maximum and minimum temperatures;
  - ii. the conditions encountered during excavation;

- iii. the commencement and the completion dates of the Work of each trade in each area of the Contract;
  - iv. the erection and removal dates of formwork in each area of the Contract;
  - v. the dates, the quantities, and the particulars of each concrete pour;
  - vi. the numbers and classifications of the Contractor's and the Subcontractor's tradesmen working at the site and the numbers and classifications of construction machinery and equipment and the number of hours each is operated;
  - vii. the visits to the site by the Owner, the Consultant, the regulatory authorities, the testing companies, the subcontractors and the suppliers.
- .2 Photographs to be taken of sufficient quantity and view points to clearly show the general progress and extent of the Work.
  - .3 Title each photograph at the bottom so no pertinent detail is obscured. Include in the title, the Contract name, the Contractor's name, the direction of view and the date when taken.

#### 1.6 SITE WORKING AREAS

- .1 Confine operations to limits of the site working area shown on Contract Drawings or as directed by the Contract Administrator.
- .2 Provide access roads to the site working area and on the site in locations shown or otherwise acceptable to the Contract Administrator.
- .3 The Contractor will maintain access to affected residential or business properties to the satisfaction of the Owner and/or Contract Administrator.
- .4 The Contractor will provide or maintain general and off-street access to affected business during construction to the satisfaction of the Owner and/or Contract Administrator.

#### 1.7 CONSTRUCTION TRAFFIC

- .1 Workforce parking will be limited to the areas designated for such or as otherwise directed by the Owner and/or Contract Administrator.

#### 1.8 CONTRACTOR LAY DOWN AREA

- .1 A designated area within a 5km radius of the project site will be provided to the Contractor for the temporary storage of equipment, and materials. Prior to total performance of the work, area(s) to be left in a neat and finished appearance and/or restored to their original condition or better to the satisfaction of the Owner and/or Contract Administrator

#### 1.9 WORK ADJACENT TO PUBLIC OR PRIVATE PROPERTY

- .1 Pay all charges made by municipal authorities for the rent of all street and sidewalk space.
- .2 Obtain written consent from the owner of adjacent property before proceeding with a part of the Work that necessitates entry onto such property or where overswing of cranes may occur. Such written consent will not limit the Contractor's responsibility for property damage or personal injury.

#### 1.10 TRAFFIC CONTROL AND STAGING PLAN

- .1 The Contractor shall submit a Traffic Control and Staging Plan to the Contract Administrator for review and approval a minimum of ten (10) days prior to commencement of construction activities. Include both a narrative description and a neat sketch showing the typical layout of traffic control measures in each stage of the work. The Traffic Control Plan shall consider the movement of both vehicular and pedestrian traffic and the impacts on abutting properties and businesses.
- .2 The Township of Nipigon anticipates the requirement to close sections of the roadways during construction activities, however; staging of construction should be completed in a manner to minimize the disruption to the impacted areas.
- .3 Stage the work to ensure access to either access to the ambulance transfer bay driveway or emergency parking area is available at all times. These areas cannot be closed at the same time.
- .4 Ensure delivery trucks have access to the hospital through Hogan Road for the duration of the project.
- .5 The Contractor shall coordinate the precise dates for shut down with the Township of Nipigon and the Nipigon District Memorial Hospital a minimum of seven (7) days in advance of the proposed shutdown date.
- .6 The Township of Nipigon will be responsible for appropriate advertisement of any pending closure and notifications to the businesses and general public.
- .7 The Contractor shall provide adequate signage, barriers and hoarding at the limits of construction to prevent vehicular traffic from using closed sections of roadways during construction.
- .8 The Contractor shall maintain uninterrupted pedestrian traffic movement along all roadways (sidewalk) for the duration of construction.
- .9 If any temporary deviation from the accepted Traffic Control or Staging Plans is required, the contractor must receive approval from the Contract Administrator and Township of Nipigon. The Contract Administrator and the Township must receive a minimum of three (3) working days notice prior to the Contractor's proposed temporary deviation.
- .10 When public thoroughfares are to be closed, or traffic restricted, the Township will notify the road authority, the fire department, the police department, and the transit authority and ambulance service, contractor must ensure the Township can give at least seven days notice of the closing or restriction.
- .11 Traffic control shall be in accordance with Book 7 of the Ontario Traffic Manual (OTM).
- .12 Provide and maintain temporary service roads for the Work to ensure safe, convenient and adequate access. Provide access for emergency vehicles at all times. Provide and maintain sidewalk crossings, ramps, and construction runways as required for access to the Work.
- .13 Close thoroughfares or restrict normal traffic flow only with the consent of the authorities having jurisdiction, and in accordance with their requirements.

#### 1.11 TEMPORARY CONSTRUCTION FACILITIES, SERVICES AND CONTROLS

- .1 Provide temporary facilities, services and controls required as construction aids or by regulatory authorities.

1.12 SANITATION FACILITIES

- .1 No existing washroom facilities will be available. Provide temporary sanitary facilities in accordance with the Occupational Health and Safety Act.

1.13 ELECTRICAL POWER

- .1 Provide temporary electric power for all construction needs. Locate receptacles so power is available to any part of the work within reach of a 30 m extension cord. Provide power at temporary storage sheds and field offices. Provide Extension cords as required.

1.14 PROJECT SIGN

- .1 Provide a project sign to the Ontario Builds signage requirements and approval of the owner within three weeks of signing the Contract and erect it where directed.
- .2 Indicate on the sign the Project title, the name of the Owner, the Consultant (and subconsultants), and the Contractor in a design style selected by the Contract Administrator.
- .3 Maintain the sign in good condition for the duration of Contract. Clean periodically. Remove the sign when the Work is complete.
- .4 Unless otherwise agreed, no other signs or advertisements, other than direction and warning signs, may be erected or displayed on the site.

1.15 TESTING AND QUALITY CONTROL

- .1 Compaction and sample testing to be done by third party consultant. Unless otherwise noted, the Contract Administrator will select and the Owner to incur cost for the services of a testing agency or laboratory for initial tests that are required but not specified, other than tests required by by-laws, statutes and regulations applicable to the Work. Payment for this item shall be made for under the contract Contingency allowance for this item in the tender form.
- .2 Remove and replace Products indicated in inspection and test reports as failing to comply with the Contract Documents.
- .3 Correct improper installation procedures reported in the inspection and test reports.
- .4 Pay the costs for the re-inspection and testing of replaced work.
- .5 It is not the responsibility of the inspection and testing agents to supervise, instruct in current methods or accept or reject a part of the Work, but only to inspect, test and to report conditions.
- .6 Notify the Contract Administrator and the appropriate inspection and testing agent not less than forty-eight hours prior to the commencement of the part of the Work to be inspected and tested.
- .7 Ensure the presence of the authorized inspection and testing agent at the commencement of the part of the Work specified to be inspected or tested.
- .8 Co-operate with and provide facilities for the inspection and testing agents to perform their duties.

- .9 Provide proper facilities for the storage of concrete specimens at correct temperature, free from vibration or damage in accordance with the instruction of the inspection and testing agent and the governing standard
- .10 Furnish to the Contract Administrator, when requested and consistent with progress of the Work, test results and mix designs specified in the Contract Documents or required by bylaws, statutes and regulations relating to the Work and the preservation of public health.
  - i. Two weeks prior to commencement of paving operations submit proposed asphalt cement Job Mix Formula (JMF) in accordance with OPSS.MUNI 1150.
- .11 Correct defective work within the Contract Time; the performing of such work is not a cause for an extension of the Contract Time.
- .12 Minimum granular compaction throughout project to be 98% Standard Proctor, unless noted otherwise.

#### 1.16 CODES AND STANDARDS

- .1 In the case of a conflict or discrepancy between the Contract Documents and the governing standards, the more stringent requirements apply.
- .2 Unless the edition number and date are specified, the reference to the manufacturer's and published codes, standards, and specifications are to the latest edition published by the issuing authority, current at the date of tender closing.
- .3 Reference standards and specifications are quoted in this Specification to establish minimum standards. Work in quality exceeding these minimum standards conforms with the Contract.
- .4 Where reference is made to a manufacturer's direction, instruction, or specification it is deemed to include full information on storing, handling, preparing, mixing, installing, erecting, applying, or other matters concerning the Products pertinent to their use and their relationship to the Products with which they are incorporated.
- .5 Where reference is made to regulatory authorities, it includes all authorities who have, within their constituted powers, the right to enforce the laws of the Place of Work.

#### 1.17 LABOUR, PRODUCTS AND WORKMANSHIP

- .1 All material shall be new unless otherwise specified and approved by the Contractor Administrator. All materials shall be installed, erected, or applied in accordance with the best standard practice and to meet the exact requirements of the manufacturer. Where the expression "equal" is used, and alternative materials are proposed, submission shall be made by the Contractor to the Contract Administrator for approval of such alternative materials.
- .2 Products named in the Specifications or on the Drawings by manufacturer's name and model number establish the size, quality and performance standards for the Work. In most cases, alternate manufacturers' Products are listed as acceptable for the named manufacturer's Product. Base the Tender Price on the named manufacturer's Product or the Product of an alternate manufacturer. If no alternate manufacturers are listed, base the tender price on the named manufacturer's Product.

- .3 The Work has been designed on the basis of the named manufacturer's Product. If the tender price is based on an alternate, acceptable, manufacturer's Product, ensure the alternate, acceptable manufacturer's Product is equivalent in size, quality and performance to the named manufacturer's Product. Include in the tender price for any modifications to the Work necessary to accommodate the alternate, acceptable manufacturer's Product and submit for the Contract Administrator's review a dimensioned layout of the space into which such Product is to be installed.
- .4 All materials to be incorporated in the work shall be stored under suitable conditions to prevent damage, deterioration, etc. No materials to be incorporated in the work shall be temporarily used or installed as a facility for construction purposes except with the expressed approval of the Contract Administrator.

#### 1.18 SUBMITTALS

- .1 Unless otherwise noted, make submittals to the Contract Administrator for review.
- .2 Make submittals with reasonable promptness and in an orderly sequence to avoid any delay in the Work. Failure to submit in ample time is not considered cause for an extension of Contract Time, and no claim for extension by reason of such default will be allowed.
- .3 Do not proceed with Work affected by submittals until review is complete.
- .4 The Contractor's responsibility for errors and omissions, for providing the specified Products and for the construction of the Work in accordance with the Contract Documents is not relieved or diminished in any way by the Contract Administrator's review of submittals.

#### 1.19 SCHEDULES

- .1 Within two (2) weeks of the written notification of tender acceptance, submit for the Contract Administrator's review, the following schedules:
  - i. a construction schedule;
  - ii. a submittal schedule for shop drawings and Product data sheets;
  - iii. a submittal schedule for samples;
  - iv. a Product delivery schedule; and,
  - v. a cash flow schedule.
- .2 Prepare each schedule in the form of a horizontal bar chart, with a separate bar for each trade or operation, and a time scale identifying the first work day of each week.
  - i. the construction time shown on the initial schedule shall not extend beyond the specified Contract completion date. The construction schedule shall include all non-working periods and appropriate allowances for inclement weather.
  - ii. the Contractor shall select the activities so that the work is identifiable and the progress of each activity can be determined. At a minimum, each trade and operation shall be identified on the schedule. The Township reserves the right to limit or increase the number of activities on the diagram.
  - iii. each activity in the initial and updated construction schedules shall include a description of the operation and the number of days allocated or actually used for it. When the duration of an activity is dependent on weather conditions, the number

- of days allocated shall include an allowance for normal frequency of inclement weather. When the activity has an associated tender item quantity, the approximate quantity shall also be shown.
- iv. the construction schedule shall show the sequence and interdependence of all activities required to complete the work under the Contract. All network connections used to create a logical schedule and the corresponding durations shall be shown. The time scale of the Construction schedule may be divided into days or weeks.
- .3 Consult with the Contract Administrator during preparation of the schedules, make any corrections agreed to during the review period, and issue final copies to the Contract Administrator.
  - .4 Monthly update each schedule during the course of construction or as directed by the Contractor Administrator and issue revised copies.
  - .5 If the progress of any part of the construction falls behind schedule, immediately notify the Contract Administrator in writing giving the reason for the delay and the action to be taken to regain the construction schedule to complete the Work at the Contract Time.
  - .6 The Contractor shall not be permitted to start work until a construction schedule, in conformance with the contract, is received by the Contract Administrator.
  - .7 If, for any reason, the Contractor cannot produce an acceptable construction schedule within 15 business days of initial submission of the construction schedule, the Contractor shall be in default of the contract.

#### 1.20 SHOP DRAWINGS AND PRODUCT DATA

- .1 Submit the shop drawings and Product data sheets as specified in sections of the Specification.
- .2 Show on the shop drawings the Products, methods of construction and attachment or anchorage, erection diagrams, connections, explanatory notes and other information necessary for proper performance of the Work. Where Products attach or connect to other Products, indicate that such items have been coordinated, regardless of the Section under which the various products have been specified. Identify by cross-reference to design drawings and Specifications.
- .3 Product data sheets are defined as manufacturer's catalogue sheets, brochures, literature, technical data, performance charts and diagrams and similar data used to illustrate quality, characteristics, capacity and performance of the specified, manufactured Products.
- .4 Submit two (2) white print copies of each shop drawing.
- .5 Submit a minimum of two (2) copies of Product data sheets for each item.
- .6 The Contract Administrator will review the shop drawings and Product data sheets and will indicate his review status by stamping shop drawings and product data sheets copies as follows:
  - i. "Reviewed" or "Reviewed as Noted" – If the Contract Administrator's review of a shop drawing or Product data sheet is final, the Consultant will stamp the shop drawing or Product data sheet "Reviewed" or "Reviewed as Noted"

- (appropriately marked) and keep his own required number of copies. The sepia or AutoCAD disk and one white print will be returned to the Contractor.
- ii. “Revise and Resubmit” – If the Contract Administrator’s review of a shop drawing or Product data sheet is not final, the Contract Administrator will stamp the shop drawing or Product data sheet “Revise and Resubmit”, mark the submission with his comments, keep one copy for his records, and return the sepia and a marked print to the Contractor. Revise the shop drawing or Product data sheet in accordance with the Contract Administrator’s notations and resubmit.
- .7 The shop drawings and the Product data sheet reviews do not authorize changes in cost or time. Changes involving cost or time are authorized only by a signed change order.
- .8 It is understood that the following is to be read in conjunction with the wording on the Contract Administrator’s shop drawing review stamp applied to each and every data sheet or drawing submitted:
- i. “This review by the Contract Administrator is for the sole purpose of ascertaining general conformance with the Contract design concept. This review does not mean that the Contract Administrator approves the detail design inherent in the shop drawings, responsibility for which remains with the Contractor, and such review does not relieve the Contractor of the responsibility for errors or omissions in the shop drawing or of his responsibility for meeting all requirements of the Contract Documents. Be responsible for confirming and correlating dimensions at the Place of the Work, for information that pertains solely to fabrication processes or to techniques of construction and installation, and for coordination of the work of all subtrades.”

#### 1.21 SAMPLES

- .1 Submit, in duplicate unless otherwise noted, samples as specified in Specification sections. Label samples as to origin and intended use in the Work.
- .2 Deliver samples prepared to the Contract Administrator’s business address or testing company as directed.
- .3 Notify the Contract Administrator in writing, at the time of submission, of any deviations in samples from requirements of the Contract Documents, and state the reason for such deviations.
- .4 Adjustments made on samples by the Contract Administrator are not intended to change the Contract Price. If adjustments affect the value of the Work, state such in writing to the Contract Administrator prior to proceeding with the Work.
- .5 Make changes in samples which the Contract Administrator may require, consistent with the Contract Documents.
- .6 Where changes or modifications of the Products for which samples are submitted are required, re-submit samples embodying the required changes or modifications.
- .7 Where colour, pattern or texture is a criterion, submit a full range of samples.
- .8 Reviewed samples will become the standard of workmanship and material against which the performed Work will be verified and accepted.

1.22 RECORD DRAWINGS

- .1 When work begins at the site, obtain from the Contract Administrator a whiteprint set of the Contract Drawings.
- .2 Record on the white prints on a daily basis, work constructed differently than shown on the Contract Documents. Record all changes in the Work caused by site conditions, or originated by the Township, the Contract Administrator, the Contractor, or a Subcontractor and by addenda, supplemental drawings, site instructions, supplementary instructions, change orders, correspondence, and directions of regulatory authorities. Accurately record the location of concealed mechanical services and electrical main feeders, junction boxes and pull boxes. Do not conceal critical Work until its location has been recorded. Do not use these drawings for daily working purposes and make the set available for periodic inspection by the Contract Administrator.
- .3 Make records in a neat and legibly printed manner with a non-smudging medium.
- .4 Dimension the installed locations of concealed service lines on the site or within the structure by reference from the centre line of the service to structure column lines or other main finished faces or other structural points easily identified and located in the finished Work.
- .5 At the completion of the project submit two (2) copies of the record drawings to the Contract Administrator for review.
- .6 Failure to comply will result in the holdback of payment.

1.23 MEASUREMENTS FOR PAYMENT

- .1 Notify the Consultant sufficiently in advance of operations to allow required measurements for payment. Unless otherwise specified, measurements will be taken in the horizontal plane, and in accordance with the contract documents.

1.24 UNIT PRICES

- .1 Unit prices included in the Agreement and submitted as part of the tender are to be based on units of measurement specified in the bidding documents and are to include for labour, materials, preparation of shop drawings, delivery, handling, disposal of surplus material, overhead and profit, and any other direct or indirect expenditures of such work measured complete in place, and as further specified in the Contract Documents.
- .2 Unit prices for specified units of measurement are to apply to all work that can be measured in the said units regardless of the variations in productivity and job conditions, or the time when instructions to perform such work are issued.

1.25 EXISTING UTILITIES

- .1 Contact the various utility companies prior to commencing Work and become informed of the exact location of utilities and protect them during construction and assume liability for damage to utilities.
- .2 Support existing pipes, ducts, or other underground services that intersect the pipe trench, or support the pipe trench in a manner acceptable to the Contract Administrator and the Utility Company.

- .3 Where existing overhead pole lines are adjacent to the excavation, temporarily support them to the satisfaction of the Contract Administrator and the Utility Company concerned.
- .4 Mechanical equipment must not be used closer than 0.3 m to utilities and the last 0.3 m must be dug by hand.

#### 1.26 CUTTING AND PATCHING

- .1 Remove and replace defective and non-conforming work.
- .2 Where new work connects with existing work and where existing work is altered, cut, patch and make good to match existing work.
- .3 Do all cutting with power saws or core drilling equipment. Do not use pneumatic or impact tools. Make all cuts with clean, true, smooth edges.
- .4 Do not cut, bore or sleeve any load bearing structure without the written consent of the Contract Administrator, unless specifically detailed on the Drawings. Submit details with each request for consent.
- .5 Provide openings in non-structural elements of the Work for penetrations of mechanical and electrical work. Coordinate size and location of such openings with the trade involved.
- .6 Fit construction tightly to ducts, pipes, conduits and similar Products to stop air movement completely. Where such work penetrates a fire separation element or wall of the building, pack the penetration around the duct, pipe, conduit or similar for the length of the openings with ULC listed fire stopping packing Product as part of the Work specified.
- .7 Prepare the surfaces to receive patching and finishing.
- .8 Refinish the surfaces to match the adjacent finishes. For continuous surfaces refinish to the nearest intersection, and for an assembly, refinish the entire unit.

#### 1.27 TEMPORARY ACCESS

- .1 Where necessary for access, provide and maintain suitable safe, temporary roads, walkways and bridges. Remove temporary access facilities and restore disturbed areas, after the Work of the Contract has been completed.

#### 1.28 HOURS OF WORK

- .1 All work shall be scheduled and carried out in compliance with the Township of Nipigon noise by-law unless otherwise approved in writing by the Contract Administrator.

#### 1.29 DUST AND MUD CONTROL

- .1 The Contractor shall ensure that his dust and mud control procedures are effective, sufficient, in force, and to the satisfaction of the Owner and/or Contract Administrator. As the work progresses, the Contractor shall clean up the streets and again at the completion of the construction works. All streets on which work has been done, or materials hauled, shall be left 'clean'. The Contractor shall be responsible for regularly cleaning all asphalt surfaces that have been muddied, or littered with debris, during the construction operations.

- .2 The Owner reserves the right, without prior notice to the Contractor, to provide additional dust control measures, or street clean-up, or grading, as may be required, as a result of these construction works, and to deduct the cost of such works from the payment due to the Contractor.

1.30 CLEAN-UP AND TIDY CONDITIONS

- .1 On a daily basis, as the Work progresses, and on completion of the Work, clean up and remove the rubbish and debris from the site. Remove excess material that is not required to be left on the site by the conditions of the Contract.
- .2 Keep the site and the Work as tidy as practicable at all times.

1.31 WARRANTY INSPECTION

- .1 The Contract Administrator will arrange and conduct with the Township and the Contractor a warranty inspection at the site prior to expiration of the one-year warranty period.

1.32 TRENCH SAFETY

- .1 Trench work and safety to comply with the requirements of the Ministry of Labour and Occupational Health and Safety Act.

1.33 PROTECTION OF PROPERTY AND STRUCTURES

- .1 The Contractor shall, at his own cost and expense, and in a manner approve by the Contract Administrator, sustain in their places and protect from damage, all water or gas mains, public or private sewers or drains, conduits, telephone and hydro ducts and cables, service pipes, sidewalks, curbs, property bars and all other structures of property in the vicinity of this work, whether over or underground, or which appear within the trench, and he shall assume all costs and expenses for damage which may be occasioned by damage to any of them. He shall at all times have a sufficient quantity of timber and plank, chains, etc., on the ground, and shall use the same as required for sheeting or sheet-piling and bracing the sides and ends of excavations, and for sustaining or supporting any and all structures that are endangered.
- .2 The Contractor shall protect all sewer and water mains as well as services pipes from freezing. Should he fail to do so, the Contract Administrator may protect such mains and service pipes, or in the event of their having suffered damage, may immediately replace or repair them charging the cost thereof to the Contractor.

## **1.0 GENERAL SPECIFICATIONS**

### **1.1 INTENT**

- .1 The Section covers the work for environmental protection, including the management and disposal of excess materials, control of water in dewatering, and temporary erosion control measures

### **1.2 WORK TO BE COMPLETED IN ACCORDANCE WITH THE FOLLOWING ACTS, REGULATIONS, AND BY-LAWS WHICH APPLY TO THE WORK.**

#### **A. FEDERAL**

- i. Impact Assessment Act c. 28
- ii. Transportation of Dangerous Goods Act and Regulations c.34

#### **B. PROVINCIAL**

- i. Environment Protection Act
- ii. Dangerous Goods Transportation Act
- iii. Ontario Heritage Act
- iv. Fire Prevention and Protection Act
- v. Occupational Health and Safety Act
- vi. And current applicable associated regulations.

#### **C. MUNICIPAL**

- i. Any applicable Acts, Regulations, and By-Laws.

### **1.3 THE CONTRACTOR WILL FOLLOW THE ENVIRONMENTAL PROTECTION MEASURES AS PRESENTED BELOW.**

#### **A. Materials Handling and Storage**

- i. Storage of construction materials will be confined to the defined laydown areas as directed by the Contract Administrator.

#### **B. Fuel Handling and Storage**

- i. The Contractor will obtain all necessary permits for the handling and storage of fuel products and will provide copies to the Owner and/or Consultant.
- ii. All fuel handling and storage facilities will comply with appropriate Provincial Acts and Regulations and any local land use permits.
- iii. Fuels, lubricants, and other potentially hazardous materials will be stored and handled within the approved storage areas.
- iv. The Contractor will ensure that all fuel storage containers are inspected daily for leaks and spillage.

- v. Products transferred from the fuel storage area(s) to specific work sites will not exceed the daily usage requirement.
- vi. When servicing requires the drainage or pumping of fuels, lubricating oils or other fluids from equipment, a groundsheet of suitable material (such as HDPE) and size will be spread on the ground to catch the fluid in the event of a leak or spill.
- vii. The area around storage sites and fuel lines will be distinctly marked and kept clear of snow and debris to allow for routine inspection and leak detection.
- viii. A sufficient supply of materials, such as absorbent material and plastic oil booms, to clean up minor spills will be stored nearby on-site. The Contractor will ensure that additional material can be made available on short notice.

**C. Waste Handling and Disposal**

- i. The construction area will be kept clean and orderly at all times during and at completion of construction.
- ii. At no time during construction will personal or construction waste be permitted to accumulate for more than one day at any location on the construction site, other than at a dedicated storage area as may be approved by the Owner and/or Contract Administrator.
- iii. All resulting debris will be deposited at a Provincially certified landfill. Exceptions are liquid industrial and hazardous wastes that may require special disposal methods.
- iv. Indiscriminate dumping, littering, or abandonment will not take place.
- v. No on-site burning of waste will be permitted.
- vi. Waste storage areas will be left in a neat and finished appearance and/or restored to their original condition to the satisfaction of the Owner and/or Contract Administrator.

**D. Dangerous Goods/Hazardous Waste Handling and Disposal**

- i. Dangerous goods/hazardous wastes are identified by, and will be handled according to, The Dangerous Goods Transportation Act and Regulations.
- ii. The Contractor will be familiar with The Dangerous Goods Transportation Act and Regulations.
- iii. The Contractor will have on site staff that is trained and certified in the handling of the dangerous/hazardous goods, when said dangerous/hazardous goods are being utilized on site for the performance of the Work.
- iv. Different waste streams will not be mixed.
- v. Disposal of dangerous goods/hazardous wastes will be at approved hazardous waste facilities.

- vi. Liquid hydrocarbons will not be stored or disposed of in earthen pits on site.
- vii. Used oils will be stored in appropriate drums, or tankage until shipment to waste oil recycling centres, incinerators, or secure disposal facilities approved for such wastes.
- viii. Used oil filters will be drained, placed in suitable storage containers, and buried or incinerated at approved hazardous waste treatment and disposal facilities.
- vii. Dangerous goods/hazardous waste storage areas will be in a neat and finished appearance and/or restored to their original condition to the satisfaction of the Owner and/or Contract Administrator.

## **2.0 EXECUTION**

### **2.1 MANAGEMENT AND DISPOSAL OF EXCESS MATERIALS**

- .1 Manage excess soils in accordance with O.Reg 406/19 and OPSS.MUNI 180. Stockpile and complete all necessary testing.

### **2.2 ENVIRONMENTAL PROTECTION FOR CONSTRUCTION IN WATERBODIES AND ON WATERBODY BANKS**

- .1 Environmental protection for construction in waterbodies and on waterbody banks to conform to OPSS.MUNI 182

### **2.3 DEWATERING OF PIPELINE, UTILITY AND ASSOCIATED STRUCTURE EXCAVATION**

- .1 Dewatering of pipeline, utility and associated structure excavation to conform to OPSS.MUNI 517
- .2 Prior to doing any work on the shoreline or in the water body the Contractor must first apply for and receive a work permit from the Ministry of Natural Resources.

### **2.4 CONTROL OF WATER FROM DEWATERING OPERATIONS**

- .1 Control of water from dewatering operations to conform to OPSS.MUNI 517

### **2.5 TEMPORARY EROSION AND SEDIMENT CONTROL MEASURES**

- .1 Temporary erosion and sediment control measures to conform to OPSS 805, except that payment for these works shall be included in the tendered prices for items in the contract which require the temporary works.

## 2.6 REFUELING

- .1 Carry out all equipment maintenance and refuelling out so as to prevent the entry of petroleum products into the ground or watercourses at all times.

## 2.7 NOISE EMISSIONS

- .1 Control noise emission from equipment and plant to local authorities' noise emission requirements.
- .2 Night work and/or work on Sundays or Statutory Holidays outside the time limit permitted in accordance with the contract documents and the Township of Nipigon By-Laws will not be allowed throughout the duration of the project without prior consent from the Township of Nipigon.
- .3 The Contractor will request approval from the Owner at least thirty (30) working days in advance of any Contract Work to be undertaken on outside the time limits as permitted by the contract documents and the Township of Nipigon By-Laws. It will be the Contractor's responsibility to schedule work activities to minimize potential problems and/or to employ noise-reduction measure to lower noise to an acceptable level.

## 2.8 DUST CONTROL

- .1 Cover or wet down dry materials and rubbish to prevent blowing dust and debris.
- .2 Dust control practices implemented by the Contractor to be completed for the duration of the contract to the satisfaction of the Owner and/or Contract Administrator.
- .3 Dust control practices will include regular street cleaning and dampening of construction access roads and work areas with water or approved chemicals at an adequate frequency to prevent the creation of dust.
- .4 Only water or chemicals approved by the Contract Administrator will be used for dust control. Waste petroleum or petroleum by-products not be used.
- .5 The Contractor will ensure that trucks which are used to haul materials to and from the work site utilize tarpaulin covers during transport to prevent material from falling onto the street and creating dust.

## 2.9 ARCHAEOLOGY

- .1 During the performance of the work, have regard to the requirements of the Ontario Heritage Act, RSO 1980, Chapter 59, and the Cemeteries Act; RSO 1980, Chapter 337.
- .2 If any archaeological and historical resources are discovered during the performance of the work, the performance of the work in the area of the discovery is to halt. Notify the Ministry of Citizenship, Culture and Recreation, Archaeology & Heritage Planning Branch, for an assessment of the discovery. Do not resume work in the area of the discovery until cleared to do so by the Ministry.

#### 2.10 SITE RESTORATION

- .1 In general, restore the site to conditions equal to or, if specified elsewhere, to a condition better than existing conditions.
- .2 Restore lands outside of the limits of the Work which are disturbed by the Work to their original condition.

#### 2.11 SPILLS REPORTING

- .1 In the event of a spill or other emission of a pollutant into the natural environment, every person responsible for the emission of who causes or permits it must forthwith notify:
  - a) the Ministry of Environment (Tel. 1-800-268-6060);
  - b) the municipality or the regional municipality within the boundaries of which the spill occurred;
  - c) the owner of the pollutant, if known;
  - d) the person having control of the pollutant, if known; and
  - e) the Contract Administrator of the spill, of the circumstances thereof, and of the action taken or intended to be taken with respect thereto.

#### 2.12 CONTINGENCY PLAN

- .1 Prior to commencing construction, prepare a contingency plan for the control and clean up of a spill. Submit for the Contract Administrator's review and the review of other responsible Parties a copy of the Contingency Plan and make appropriate changes to it based on review comments received. The plans shall be reviewed at the pre-construction meeting. The contingency plan shall include:
  - a) the names and the telephone numbers of the persons in the local municipalities to be notified forthwith of a spill;

- b) the names and the telephone numbers of the representatives of the fire, the police and the health departments of the local municipalities who are responsible to respond to emergency situations;
- c) the names and the telephone numbers of the companies experienced in the control and cleanup of hazardous materials that would be called upon in an emergency involving a spill;
- d) the Contractor's proposal for the immediate containment and control of the spill, the cleanup procedures to be initiated immediately and any other action to be taken to mitigate the potential environmental damage while awaiting additional assistance; and
- e) the name and the office and home telephone number of the Contractor's representative responsible for preparing, implementing, directing and supervising the contingency plan.

## 2.13 VEGETATION

- .1 Areas where vegetation is removed during clearing, construction, and decommissioning activities, will be re-vegetated as soon as possible.

## 2.14 PROTECTION OF TREES

- .1 The Tree Protection Zone shall be the area within the drip zone of any trees within or adjacent to the limits of the Contract, not designated for removal under the Contract.
- .2 The minimum Tree Protection Zone will be the area within a 3.0 in radius of the centre of a tree.
- .3 Protection required with Tree Protection Zones includes:
  - a) Protect tree zone with snow fence or approved equal as per City of Thunder Bay Drawing Standard M104-4.
  - b) In designated areas, install snow fence along the limits of the Protection Area.
  - c) Operate equipment to prevent damage to trees; do not permit heavy equipment to travel over Protection Areas.
  - d) Do not locate stockpiles, surplus excavated material, or construction materials within Protection Areas.
  - e) Where construction operations must impact Protection Areas, prune the trees in advance. Cut roots with clean severances.

- .4 Excavations within Protection Areas shall be carried out using low impact methods such as vacuum excavation or directional drilling, unless otherwise specifically authorized by the Contract Administrator.

#### 2.15 DAMAGED TREES

- .1 Notify the Contract Administrator of any damage to trees.
- .2 Provide remedial action to damaged trees using a qualified tree service
- .3 Submit the remedial program recommended by the tree service to the Contract Administrator, for approval, before carrying out the work.
- .4 If a tree is damaged beyond repair, replace the tree with two trees. The species of the replacement trees will be determined by the Contract Administrator.
- .5 Deciduous trees shall have a minimum diameter of 40 mm measured at a point 30 cm above the root ball or finished grade and be a minimum of 2 m in height.
- .6 Coniferous trees shall be balled or wrapped in burlap and be a minimum of 1.8 m in height measured from the top of the root ball.

#### 2.16 SITE CLEARING AND PLANT PROTECTION

- .1 Protect trees and plants on site and adjacent properties.
- .2 Protect roots of trees to dripline during excavation and site grading to prevent disturbance or damage. Avoid unnecessary traffic, dumping and storage of materials over root zones.
- .3 Minimize stripping of topsoil and vegetation.
- .4 Restrict tree removal to areas indicated or designated by Contract Administrator.

## **1.0 GENERAL SPECIFICATIONS**

### **1.1 SEWER CONSTRUCTION**

- .1 The Construction methods for pipe sewer construction shall conform to the latest version of OPSS.MUNI 410 and OPSS.MUNI 450 where applicable. Related work references of the OPSS shall also apply.
- .2 Removals to be completed as specified and in accordance to OPSS.MUNI 510.

### **1.2 SALVAGE**

- .1 Where existing manhole and catch basin frames and covers to be replaced are in such a condition as to be reusable, contractor to exercise reasonable care in removing them for salvage. Salvaged components to be delivered by the contractor to a designated area within a 10km radius of the project site and identified by the Contract Administrator. No additional payment shall be made for the removal or delivery of the salvaged components and costs to be included within the contract unit price per for removal of the specific item.

### **1.3 ADDITIONAL INFORMATION**

- .1 There is a possibility that the location of sanitary sewer services are not accurately depicted. Contractor to verify the location of services prior to/during construction at no additional expense to the owner.

### **2.1 SEWER PIPE**

- .1 Sizes as indicated on drawings.
- .2 SDR-35 PVC “push-on” joint sewer pipe for open cut installation. Sizes as indicated.
- .3 DR17 HDPE pipe to ASTM F714 for horizontal directional drilling installation. Sizes as indicated.
- .4 Service pipe (private drains and laterals) – SDR 35, in accordance with OPSS.MUNI 1841. Sizes 150mm dia or match existing for larger diameters.

### **2.2 MANHOLES**

- .1 Manholes specified in this Contract shall be precast reinforced concrete manholes risers and tops, in accordance with the material and fabrication requirements of OPSS.MUNI 407, OPSD 701.010, A.S.T.M. C-478 and frost straps as per OPSD 701.100. Contractor is to submit shop drawings to Contract Administrator for approval.
- .2 All manholes to be benched and channelled in accordance with OPSD 701.021

## 2.3 FRAMES AND COVERS

- .1 Manholes frames and covers in this Contract shall be in accordance with ASTM A48 and OPSS.MUNI 1850. Contractor is to submit shop drawings to Contract Administrator for approval.
  - i. Sanitary manhole covers as per OPSD 401.010 Type 'A'

## 2.4 PIPE INSULATION

- .1 Insulation specified in this contract for sewer applications shall be extruded polystyrene (XPS) to CAN/ULC-S701, Dow HI-40 Styrofoam 50mm Rigid Insulation in accordance with OPSS.MUNI 1605 or approved equivalents.

## 2.5 BEDDING AND BACKFILL MATERIAL

- .1 Bedding and Backfill material shall be in accordance with OPSS.MUNI 1010 and as detailed in the Contract Drawings.

## 3.0 EXECUTION

### 3.1 REMOVAL OF EXISTING MANHOLE

- .1 This tender item shall include the full removal of an existing manhole structure including but not limited to; frame and cover, adjustment rings, reducers, riser, barrel section and base. This item also includes the temporary disconnection and plugging (as required) of all existing sewers, sewer services and any inlet piping connected to the manhole.
- .2 Payment for this item shall be from the contract unit price for removal of existing sanitary manholes in the tender form and shall include labour, material and equipment required to complete the work.

### 3.2 PIPE INSTALLATION

- .1 Pipe to be installed by open cut or by horizontal directional drilling. Contractor to submit proposed methodology to Engineer prior to construction.

### 3.3 SEWER PIPE INSTALLATION – OPEN CUT

- .1 The interior of all pipe shall be kept clean and free from undesirable material at all times and installed in accordance with OPSS.MUNI 410, OPSD 802.010 (flexible pipe Earth Excavation).
- .2 New Granular Bedding Material shall be compactable granular material free of stones larger than 25 mm and compacted to 98% SPMDD.
- .3 Proceed only when work to be backfilled has been inspected and approved, and approval to backfill has been obtained. Place backfill in loose lifts of material not exceeding 300

mm depth. Compact each loose lift to 98% SPMDD before placing the next loose lift of material. Maintain backfill material at optimum moisture content to achieve required densities.

- .4 Payment for this item shall be at the contract unit price for this item in the tender form for the labour, equipment and material required to complete the work and shall include the cost of reconnecting to existing sewers, breaking into or connecting to existing/new structures or concrete appurtenances, restoration and backfilling to the underside of granular 'B' sub-base. This item also includes for temporary disconnections, plugging, and temporary sewage diversion (as required) of all existing sewer services for labour, material and equipment required to complete the work.

### 3.4 SEWER PIPE INSTALLATION – HORIZONTAL DIRECTIONAL DRILLING

- .1 Complete horizontal directional drilling in accordance with OPSS.MUNI 450.
- .2 Notwithstanding the requirements of OPSS.MUNI 450, the Contractor shall be aware that mix ground conditions are anticipated throughout the site. Geotechnical information is provided in the KGS Group Geotechnical Investigation Report dated July 18, 2025.
- .3 Minimum horizontal and vertical clearance with other utilities is 600 mm. Acceptable tolerances from design inverts shall be 150 mm horizontally and 50 mm vertically.
- .4 Payment for this item shall be at the contract unit price for this item in the tender form for the labour, equipment and material required to complete the work and shall include the cost of reconnecting to existing sewers, breaking into or connecting to existing/new structures or concrete appurtenances, restoration and backfilling to the underside of granular 'B' sub-base. This item also includes for temporary disconnections, plugging, and temporary sewage diversion (as required) of all existing sewer services for labour, material and equipment required to complete the work.

### 3.5 NEW SANITARY SERVICE

- .1 Typical size is 150mm diameter for exiting sanitary laterals. Multi-unit buildings and commercial/industrial properties may require larger sizes. Larger sizes may also be required for tie-ins to older existing piping. Installation to be done in accordance with OPSD 1006.010.
- .2 Install new, individual PVC SDR 35 sanitary connections to main. Size to be 150mm or match existing if larger.
- .3 The Contractor shall ensure the new sanitary service pipe is connected to a structurally sound piece of existing pipe using approved couplers.
- .4 All new sanitary sewer service to be set at a consistent grade acceptable to the Contract Administrator (ideally maintain a grade of 2%, minimum grade of 1%) connected to the new sewer main using a push-on PVC service tee as per OPSD 1006.010.

- .5 Service caps shall be used where required.
- .6 Measurement for payment shall be for the installation of each sewer service including all labour and materials associated with the installation from the sewer main to the property line, including the installation of a new sewer cleanout. Payment will be made at the contract unit price for this item in the tender form and shall be full compensation for all material, equipment and labour required to complete the work. This item also includes for temporary disconnection and plugging (as required).

### 3.6 MANHOLE INSTALLATION

- .1 This tender item shall include the supply and installation of manholes which consists of a manhole base, barrel and riser sections in accordance with OPSD 701.010 complete with Manhole frame and cover in accordance with OPSD 401.010 and hollow rectangular ladder rungs in accordance with OPSD 405.010.
- .2 This tender item shall include all labour, material and equipment required for the excavation, granular base preparation and installation of the manhole structure in accordance with OPSS.MUNI 402 and OPSS.MUNI 407, including one adjustment to final asphalt elevations or as directed by the Contract Administrator. Manhole adjustments shall be completed in accordance with OPSS.MUNI 408. This item also includes the reconnection of all existing sewers, sewer services and any inlet piping connected to the original manhole and temporarily disconnected for its removal and backfilling to underside of granular 'B' sub-base.
- .3 Manholes to include the installation of frost straps in accordance with OPSD 701.100. All manholes shall be wrapped in 6 mm polyethylene and benched in accordance with OPSS.MUNI 407 and OPSD 701.021.
- .4 Manholes to include the installation of 300 mm granular bedding and shall be backfilled with granular 'B' material or a suitable granular material approved by the Contract Administrator.
- .5 Payment for this item shall be at the contract unit price for this item in the tender form for the labour, equipment and material required to complete the work.

### 3.7 TRENCH BACKFILLING

- .1 All materials to be used for backfilling of the sewer trench are to be approved by the contract administrator prior to commencement of backfilling operations and shall be in accordance with OPSS.MUNI 401.
- .2 Only suitable native material approved by the contract administrator to be used for backfill to the underside of the new granular sub-base. Backfilling shall be performed in lifts not exceeding 300 mm thickness. The contractor shall be responsible for the supplying and placing of new granular 'B' material if required.

- .3 Excavate with suitable machinery or by hand as may be necessary to the depths and to the dimensions shown or required.
- .4 Cut and trim the sides of trenches evenly and as near vertical as possible, shore as required to prevent cave-ins.
- .5 Keep the bottoms of trenches clean, clear of loose material, frost free and free of water. Slope or grade trenches as required. Hand-trim at least last 150 mm of trench excavations to ensure a minimum disturbance of the load bearing surface of the trench bottom and to ensure a minimum negative impact on the load bearing value of the trench bottom.
- .6 No separate payment will be made in the tender form for trench backfilling. Costs to be included within the contract unit price applicable to the tender item for which the work is required.

### 3.8 TRENCHING

- .1 The Contract Administrator may stop the excavation and any portion of the work and require the Contractor to complete the pipe laying and backfilling up so such point as he may direct, before excavation proceeds further. The Contractor shall not be entitled to receive any allowance or compensation, other than an extension of the time of completion for as many days as the Contract Administrator may determine.
- .2 If work is stopped on the whole, or any part of a trench, and the trench is left open for any unreasonable length of time in advance of the construction of the sewer, the Contractor shall, when directed by the Contract Administrator, refill such trench or part thereof, and temporarily repave over the same, at his own cost and expense, and shall not again open such trench, or part thereof, until he is ready to proceed with the construction of the sewer. If the Contractor refuses to completely refill such trench and temporarily repave over same within 48 hours after the receipt of Notice in writing to do so, the Contract Administrator may refill and temporarily repave such trench, and the cost and expense thereof shall be charged to the Contractor.
- .3 No separate payment will be made in the tender form. Costs to be included within the contract unit price applicable to the tender item for which the work is required.

### 3.9 DE-WATERING

- .1 De-watering shall conform to the latest revision of OPSS.MUNI 517. The Contract shall at all times have sufficient pumping equipment ready for immediate use in order to keep the excavation dry. The drainage of the trench shall be so affected as not to allow water to run through the newly laid pipe.
- .2 The Contractor shall not hold the Owner liable for leakage from existing services or services under construction. This shall also apply to existing water valves.

- .3 No separate payment will be made in the tender form. Costs to be included within unit cost of sewer installation.

### 3.10 MAINTAINING FLOW IN DRAINS

- .1 The Contractor shall, at his own cost and expense, provide for and maintain the flow, where required, of all sewers, drains ditches and gutters, house or inlet connections, and all watercourses that may be met with during the progress of the work.
- .2 The Contractor shall not allow the contents of any sewer, drain, house or inlet connection or watercourse to flow into the trench or the sewers to be constructed under this Contract, except where permission is given by the Contract Administrator, and shall at his own cost and expense immediately remove all offensive matter from the proximity of the work, using such precaution in so doing as may be directed by the Contract Administrator.
- .3 The Contractor is responsible for temporary bypass pumping and re-direction of sewage flows as required during sanitary sewer replacement and repairs to avoid interruption of sewer services to the residents.
- .4 No separate payment will be made in the tender form. Costs to be included within the contract unit price applicable to the tender item for which the work is required.

### 3.11 ADDITIONAL CLEAR STONE BEDDING

- .1 Where the trench bottom is unstable or unsuitable for bedding the pipe, crushed stone may be used as directed and at the sole discretion of the Contract Administrator.
- .2 Clear stone material shall be measured in tonnes, and shall conform to OPSS.MUNI 1010 for “Granular O” material and shall be such size that 100% will pass a 25 mm sieve and 100% will be retained on a No. 4 sieve.
- .3 No payment will be made for crushed stone used to aid in de-watering.

### 3.12 RIGID POLYSTYRENE INSULATION

- .2 This tender item shall include the supply and installation of extruded polystyrene (XPS) to CAN/ULC-S701, Dow HI-40 Styrofoam 50mm Rigid Insulation in accordance with OPSS & the manufacturer specifications, where directed by the Contract Administrator or as shown on the contract drawings.
- .1 Payment for this item shall be at the contract unit price for this item in the tender form for the labour, equipment and material required to complete the work. Measurements will be taken of the area of Styrofoam insulation placed.

### 3.13 CCTV INSPECTION OF SEWER MAINLINES

- .1 New sewer mains installed under this Contract shall be inspected by closed circuit sewer inspection. The inspection shall be carried out in accordance with OPSS.MUNI 409.
- .2 The Contractor shall be responsible for the rectification of any defect encountered.
- .3 The inspection shall be scheduled prior to final asphalt paving.
- .4 The Contract Administrator shall receive two copies of the CCTV report in a format approved by the Owner and Contract Administrator.
- .5 Payment for this item shall be at the contract unit price for this item in the tender form for the labour, equipment and material required to complete the work

## **1.0 GENERAL SPECIFICATIONS**

### **1.1 ROADWAY CONSTRUCTION AND ASSOCIATED WORKS**

- .1 The Construction methods shall conform to the latest version of OPSS.
- .2 Removals to be completed in accordance to OPSS.MUNI 510.
- .3 Compaction and sample testing to be done by third party consultant and in accordance to Section 01000 “General Requirements” Sub- section 1.15 “Testing and Quality Control” of the contract documents.
- .4 Maintain access to all businesses where they abut the work area.
- .5 All water required for compaction or dust control shall be incidental and deemed included within the applicable tender item for work being performed.
- .6 For disturbed or reconstructed boulevard areas, slope boulevards to provide a uniform rising grade (preferable 2% minimum), between the top of the curb and the property line.

### **1.2 PRE-CONSTRUCTION SURVEY LAYOUT**

- .1 The Lump Sum Price bid for *General Site Works* shall include all labour, equipment and material necessary to perform a survey layout of grades and lines prior to construction.

### **2.1 GRANULAR MATERIAL**

- .1 Granular ‘A’ Physical properties shall conform to OPSS.MUNI 1010.05.02, and Table 1. Granular ‘B’ Type I physical properties shall conform to OPSS.MUNI 1010.05.03 and Table 1. Clear stone properties shall conform to OPSS.MUNI 1010 (Granular “O”) and be such size that 100% will pass a 25 mm sieve and 100% will be retained on a No. 4 sieve.
- .2 Gradation properties for Granular A and B shall conform to OPSS.MUNI 1010, Table 2. Granular B for sub base shall meet the gradation requirement for Type I.
- .3 When a change in the material type occurs or when the performance of material that meet the requirements of this specification is found to be unsatisfactory, the use of the materials shall be discontinued until the Contractor, with the approval of the Contract Administrator, proves the source to be satisfactory.
- .4 The Contractor shall not change material source locations without the written approval of the Contractor Administrator. Quality Control and Quality Assurance Testing for source location changes shall be completed at the Contractor’s expense.

### **2.2 PORTLAND CEMENT CONCRETE**

- .1 Concrete aggregates shall conform to OPSS.MUNI 1001, and OPSS.MUNI 1002. Coarse aggregate shall have nominal maximum size of 19mm, with corresponding gradation requirements as given in OPSS.MUNI 1002, Tables 3 and 4.
- .2 Chemical admixtures shall conform to the requirements of OPSS.MUNI 1303. Hydraulic cementing materials shall conform to the requirements of OPSS.MUNI 1301. Unless otherwise specified, type 10 Normal Portland cement shall be used for all above grade concrete.
- .3 Curing of concrete surfaces shall be undertaken by using one of four alternatives:
  - i. White waterproof paper, white opaque polyethylene film, or white burlap polyethylene sheeting which conforms to OPSS.MUNI 1305.
  - ii. Burlap as specified in OPSS.MUNI 1306.
  - iii. White pigmented membrane curing compound as specified in OPSS.MUNI 1315 – Sealtight 1220 by W.R. Meadows, or approved equal.
  - iv. Concrete Retarders: Pozzolith 100XR or approved equal may be accepted. Contractor to supply Owner’s representative with mix design / specifications for approval.

### 2.3 HOT MIX ASPHALT

- .1 This specification covers hot mix asphalt to be used for the construction of roads, laneways and parking lots, etc. Unless otherwise amended herein, materials, production, and placement of hot mix asphalt shall conform to OPSS.MUNI 1150. Asphalt aggregate physical properties shall conform to OPSS.MUNI 1001, OPSS.MUNI 1150 AND OPSS.MUNI 1003.
- .2 Job-Mix Formula (JMF) shall be submitted to the Contract Administrator a minimum of fourteen (14) days prior to commencement of pavement operations and shall conform to OPSS.MUNI 1150. The Contract Administrator shall review the formula and provide written approval for the use of the JMF.

### 2.4 GEOTEXTILE

- .1 Geotextile specified in this contract for roadway applications shall be a Class 1, non-woven permeable synthetic geotextile material, in accordance with the material and fabrication requirements of OPSS.MUNI 1860.
- .2 Geotextile shall be: Terrafix 360R non-woven geotextile or approved equivalent shall be overlapped a minimum of 600mm.

### 2.5 TRAFFIC SIGNS

- .1 Traffic control signage whether new or temporary shall conform to M.U.T.C.D. standards.

2.6 TOPSOIL

- .1 Topsoil material shall conform to OPSS.MUNI 802

2.7 SEED

- .1 Grass Seed: Certified Canada No. 1 Grade to Government of Canada Seeds Regulations, conforming to OPSS.MUNI 804 and having minimum germination of 95% and minimum purity of 97%.

2.8 SEDIMENT CONTROL

- .1 All sediment control materials shall be in conformance with OPSS.MUNI 805

2.9 INSULATION

- .1 Insulation to be extruded polystyrene (XPS) to CAN/ULC-S701, Dow HI-60 Styrofoam Rigid Insulation. Sizes as indicated.

**3.0 EXECUTION**

3.1 ADDITIONAL EXCAVATION

- .1 This tender item includes the labour, material and equipment required to excavate beyond the original scope of work as a result of soft-subgrade or unsuitable material. The extent of additional excavation to be directed by the Contract Administrator.
- .2 Payment for this item shall be at the contract unit price for this item in Tender Form, for labour, equipment and material required to complete the work.

3.2 DISPOSAL OF EXCAVATED MATERIAL

- .1 Disposal of excavated material shall be in accordance to OPSS.MUNI 180 and O.Reg 406/19. Where possible, do not place excavated material on the travelled portion of streets, access to lots, lawns, walks, driveways, etc. Cast material to one side of the trench only, unless otherwise directed. Dispose of any excess material remaining after backfilling of trenches.
- .2 Contractor to complete testing of excess soils in accordance with OPSS.MUNI 180 and O.Reg 406/19.
- .3 The Contract Administrator shall be the sole judge as to the amount of excavated material, which can be stockpiled alongside the trench, and may order any or all of the excavated material removed and stockpiled.

- .4 Excavated material shall be taken to a designated area identified by the Contract Administrator and located within a 10km radius of the project site.
- .5 Disposal of all asphalt material will not be accepted by the Township or at the local landfill site. Contractor will be responsible for arranging a disposal site for all asphalt.
- .6 No separate payment will be made for this item and costs to be included within the applicable tender unit cost for the work being performed.

### 3.3 DE-WATERING

- .1 De-watering shall conform to the latest revision of OPSS.MUNI 517. The Contract shall at all times have sufficient pumping equipment ready for immediate use in order to keep the excavation dry. The drainage of the trench shall be so affected as not to allow water to run through the newly laid pipe.
- .2 The Contractor shall not hold the Owner liable for leakage from existing utilities, services or services under construction.
- .3 No separate payment will be made for this item. Costs to be included within the contract unit price applicable to the tender item for which the work is required

### 3.4 REMOVAL OF ASPHALT PAVEMENT (FULL DEPTH)

- .1 This item shall include the full depth removal of existing asphalt road and island surface material as outlined on the contract drawings.
- .2 Disposal of all asphalt material will not be accepted by the Township or at the local landfill site. Contractor will be responsible for arranging a disposal site for all asphalt.
- .3 The estimated approximate thickness of asphalt is 50mm.
- .4 Provide ramping using sand mix asphalt at the locations of manholes, catch basins, water valves, etc., for traffic movement and safety. Remove ramping prior to paving. No ramping is required if Granular 'A' base, cleaning and re-paving operations are carried out in a continuous process.
- .5 No separate payment will be made unless specifically indicated in the Tender Form. Costs to be included within unit cost of common excavation or additional excavation.

### 3.5 CLEAR STONE

- .1 Clear stone shall be used to replace excavated unsuitable subgrade material. The extents of the removal of unsuitable material and placement of clear stone shall be at the discretion and direction of the Contract Administrator.

- .2 This tender includes all labour, material and equipment required to supply, place, and compact clear stone, as required. Clear stone material shall be measured in tonnes, and shall conform to OPSS.MUNI 1010 for “Granular O” material.
- .3 No payment will be made for crushed stone used to aid in de-watering.
- .4 Payment for this item shall be at the contract unit price for this item in the tender form for the labour, equipment and material required to complete the work. Contractor to submit weigh bills to inspector on a daily basis. The density used for unit conversions is 1.85 tonnes/m<sup>3</sup>.

### 3.6 GEOTEXTILE

- .1 This tender includes all labour, material and equipment required to supply and install the non-woven geotextile, and shall be installed in accordance with OPSS.MUNI 1860. The geotextile shall be installed in accordance with manufacturer recommendations and shall be pinned to the excavation wall with either sod staples or 300 mm long nails (with washers on heads). The geotextile shall be overlapped 0.6 m along the width of the roadway and 1.0 m along the length of the roadway excavation and 0.3 m vertically along the excavation.
- .2 Ensure the surface below the geotextile is prepared in advanced to achieve a smooth, even surface, clear of any aggregates or debris, and constructed to completely wrap around the granular “B” layer.
- .3 If the geotextile is damaged, torn or punctured during installation or placement of the fill material, the damaged section shall be repairs at the no extra cost to the owner. The damaged section shall be exposed and a patch of geotextile placed over the damaged section. Where the patch is now sewn it shall be large enough to overlap 1 m onto the undamaged geotextile. Any fill material on the damaged area shall be replaced and compacted to the required standard.
- .4 Payment for this item shall be at the contract unit price for this item in Tender Form, for labour, equipment and material required completing the work. Note: The estimated tender quantity does not take into account the horizontal overlap described above; it only accounts for the vertical pinning. There will be no additional payment for the horizontal overlap.

### 3.7 GRANULAR ‘B’ (TYPE I) SUB-BASE COURSE

- .1 This tender includes all labour, material and equipment required to supply, place, and compact Granular ‘B’ (Type I) sub-base course material. Sub-base material shall be measured in tonnes, and shall conform to OPSS.MUNI 1010 for “Granular B” material.
- .2 Fill required to raise sub-grade up to the underside of specified fill, shall be Granular ‘B’ (Type I) sub-base course material and shall be compacted to minimum 98% S.P.M.D.D.
- .3 All work shall be in accordance to OPSS.MUNI 314

- .4 The installation shall be completed and trimmed during each phase, so as to conform to the proper grades and lines with tolerances of  $\pm 20$  mm vertically and  $\pm 100$  mm horizontally. The average level of the finished grade shall neither be consistently high or low from design grade.
- .5 Payment for this item shall be at the contract unit price for this item in the tender form for the labour, equipment and material required to complete the work. **Contractor to submit weigh bills to inspector on a daily basis.** Tickets presented to the contract administrator, after trucks have left the site, or from previous working days will not be accepted. The density used for unit conversions is 2.0 tonnes/m<sup>3</sup>.

### 3.8 GRANULAR 'A' BASE COURSE

- .1 This tender item shall include all labour, material and equipment required to supply, place, and compact Granular 'A' base course material, as shown on the contract drawings or as directed by the Contract Administrator.
- .2 All work shall be in accordance to OPSS.MUNI 314
- .3 The surface of the granular base shall be such that when tested with a 3 m straight edge placed on the surface of the roadway, the maximum deviation of the surface from the edge of the straight edge shall nowhere exceed 10 mm.
- .4 The final moisture content of the base course mixture in each layer just before compaction shall be not more than optimum moisture in order to obtain maximum compaction. The optimum moisture for the Granular "A" course shall be determined by a third party laboratory, with documentation provided to the Contract Administrator from the Contractor.
- .5 If traffic is permitted over the Granular "A" course, the contractor shall maintain and repair the layer with regards to cross-section and compaction, and pay special attention to final grades prior to the commencement of paving operations. The contractor shall provide all necessary protection of works and safety to the public at no extra cost to the owner.
- .6 The installation shall be completed and trimmed during each phase, so as to conform to the proper grades and lines with tolerances of  $\pm 10$  mm vertically and  $\pm 100$  mm horizontally. The average level of the finished grade shall neither be consistently high or low from design grade.
- .7 Payment for this item shall be at the contract unit price for this item in the tender form for the labour, equipment and material required to complete the work. **Contractor to submit weigh bills via. e-mail to Contract Administrator on a daily basis.** Tickets presented to the contract administrator, after trucks have left the site, or from previous working days will not be accepted. The density used for unit conversions is 2.4 tonnes/m<sup>3</sup>.

### 3.9 HOT MIX ASPHALT

#### .1 General

- i. This item shall include all labour, equipment and material required to supply, place and compact HL4 (one 50 mm lift) hot mix asphalt in accordance with OPSS.MUNI 310.
- ii. The area to be paved shall be true to line and grade, having a smooth dry, compacted surface prior to the commencement of paving operations. The area to be paved shall be free from all loose asphalt and foreign material. **Any disturbance to the existing asphalt parking lot shall require restoration to a minimum width of 3.0 m (one lane). If the disturbance exceeds this width, full-width restoration (typically 6.0 m) shall be required.**
- iii. Existing or newly paved surfaces shall be cleaned of loose material by sweeping with a power broom. Supplemented by hand sweeping, if determined necessary by the Contract Administrator.
- iv. When matching into existing asphalt, sawcut and cold plane to the limits and depths shown on the contract drawings or as directed by the Contract Administrator.
  - Asphalt milling to include crossfall correction where required.
  - Commence cleaning operations including mechanical sweeping and flushing to remove the milled asphalt from the road surface. Thoroughly clean the road surface before opening the road to traffic at the end of the day.
  - Provide ramping using sand mix asphalt at the locations of manholes, catch basins, water valves, and also, along the exposed milled edges for traffic movement and safety. Remove ramping prior to paving. No ramping is required if the milling, cleaning and re-paving operations are carried out in a continuous process.
  - Arrange for disposal sites for the milled asphalt.
  - Remove any loose asphalt chunks and winter sand that may remain on top of the gutters.
  - Maintain milled surface, including any breakthrough areas, with hot mix patching if repaving is not continuous.
- v. Butt joints on previously placed cooled pavement shall be saw cut and tack coated prior to continuing the paving operation.
- vi. Contractor shall not pave against recently placed concrete curb, sidewalk or any other concrete structure, until curing has occurred for a minimum of five (5) days. For the purpose of paving operation only, concrete curing time may be reduced upon receipt of contractor's written certification that high early strength additives were used, properly placed and appropriate curing compounds were applied to concrete.

- vii. Where paving is to be completed adjacent to manholes, catch basin frames and covers and valve boxes, contractor to paint all frames, covers and valve boxes with fuel oil prior to paving to prevent asphalt from bonding with metal surfaces.
- viii. Recycled asphalt will **not be** permitted.
- ix. Sufficient rollers must be maintained on job site to ensure full compaction of asphalt mix before temperature of mix falls below 95°C.
- x. The asphaltic finished surface shall be true to the required profile and cross-section, with a tolerance of  $\pm 5$  mm from the required elevations. The finished grade shall neither be consistently high or low from the design grade. The surface shall show no depressions or bumps exceeding  $\pm 5$  mm under a straight edge  $\pm 3$  m (minimum) long, placed parallel to the road centre line.
- xi. Where water valve boxes or manholes are rebuilt, constructed, raised or lowered and/or adjusted in conjunction with surface construction or renewal, adjust the appurtenances such that the top surface of the appurtenance is flush with the finished grade of the pavement, sidewalk, or boulevard.
- xii. After placing, rolling and compacting the asphalt, depressions or bumps measured centerline to the top of the appurtenance under a straight edge a minimum of 3 m long placed parallel to the road are not to exceed the values in the following table:

appurtenance	depression	Bump
Water valve boxes	10 mm	5 mm
Manholes	10 mm	5 mm

- xiii. Bumps exceeding 5 mm are not acceptable.
- xiv. Any uplifting or settlement of water valve boxes and/or manhole frames shall be corrected to conform to this specification, at no cost to the owner.
- xv. The average asphalt concrete thickness must meet or exceed the required thickness and in no case shall any individual core thickness be thinner than 5 mm of the required thickness.
- xvi. When deviations in excess of the above tolerances are found the pavement surface shall be corrected by methods satisfactory to the Contract Administrator.
- xvii. No traffic shall be allowed on the finished surface until it has cooled to 60°C or until permitted by the Contract Administrator.

.2 Quality Control

- i. Contractor shall be responsible for the placement of asphaltic concrete meeting the requirements of these specifications.

.3 Temperature

- i. Asphalt shall not be placed when it is raining or when rain is imminent, on a saturated surface, on an unstable/yielding roadbed, when the base is frozen, or when weather conditions prevent proper handling or finishing of the asphalt.
- ii. Asphalt shall not be placed, unless the air temperature at the surface of the road is a minimum of 7°C and rising.
- iii. The temperature of the asphalt immediately after leaving the spreader and being placed and prior to initial rolling shall not be greater than 160°C or less than 120°C. Inspect quality of asphalt in trucks whose travel time plus idling time on site exceeds 4 hours. It is the contractor's responsibility to monitor asphalt temperature and rejection of loads under 120°C (at no cost to the Owner) and/or containing too many large chunks or if material becomes too hard to place.
- iv. The delivery and laying of asphalt shall be timed such the development of cold joints and asphalt sprawling will be minimized. If this is not achievable and the performance of asphalt is compromised, the Contractor shall repair cold joints at no extra cost to the Owner. Cold joints and asphalt cracking will be repaired to the satisfaction of the Contract Administrator.
- v. The asphalt temperature shall be measured directly behind the paver screed at the time of placement.

.4 Tack Coat

- i. Tack coat shall be applied on all abutting concrete and asphalt surfaces prior to paving. The supply and application of tack coat will be paid out as part of the hot mix asphalt placement item. No separate payment will be made for this item. Tack coat will be applied to dry surfaces and will be given sufficient time to set, prior to commencing paving operations.
- ii. Tack coat shall not be applied during cold weather, after sunset, or to a wet surface.

.5 Weigh Tickets

- i. The contractor shall submit weigh tickets to the contract administrator at the end of each day for **reference purpose only**. Tickets presented to the contract administrator, after trucks have left the site, or from previous paving days will not be accepted.
- ii. As outlined in OPSS.MUNI 310.09.01.01.01 "The truck weigh ticket shall be printed by an electronic printer interfaced with the tuck scale readout and capable of recording the tare mass, gross mass and net mass. The tare mass of the truck shall be taken at least once per shift."

.6 Compaction Requirements

- i. As outlined in A.S.T.M. D698-70 and OPSS.MUNI 310.08.06, compaction testing shall meet the requirements specified in Table 10 and a nuclear density test gauge results shall be used to assess in-place compaction
- ii. Maintain the optimum moisture content for all fill materials during backfilling and compaction operations, to achieve required compaction density. Deposit fill in layers of 150 mm loose thickness so that equipment being used for compacting can produce the specified compaction density.
- iii. Puddling or flooding with water for the purpose of consolidating granular fill, will not be permitted. The addition of water is only permitted to the extent required to provide the optimum moisture level of fill material.
- iv. During and immediately after levelling, thoroughly compact each layer of fill by use of compaction equipment of size and of a type to achieve the required degree of compaction without causing lateral forces that may result in the displacement of foundation structures, retaining walls or curbs. Exercise caution in this regard to avoid movement of such structures.
- v. After a period adequate to reveal settlement has passed, place any required additional fill and compact in place to specification requirements so as to eliminate all depressions. Make good any subsequent settlement of any fill without extra cost to the Owner.
- vi. In the event that there the required compaction is not achieved (minimum 92.0%) with the use of the Nuclear Density Gauge, a core sampling program will be completed in order to verify compaction. Penalties for not achieving the required compaction requirements are outlined in the table for “**Payment Adjustments for Compaction**”.

Payment Adjustment for Compaction		
Percent of Marshall Density	Payment Adjustment - Dollars per Tonne	
	Design Lift Thickness	
Lot Mean	35 mm or Greater Binder Lifts	35 mm or Greater Surface Lift
94.0	0.00	-4.00
93.9	-0.20	-4.40
93.8	-0.40	-4.80
93.7	-0.60	-5.20
93.6	-0.80	-5.60
93.5	-1.00	-6.00
93.4	-1.20	-6.40
93.3	-1.40	-6.80
93.2	-1.60	-7.20

Payment Adjustment for Compaction		
Percent of Marshall Density	Payment Adjustment - Dollars per Tonne	
	Design Lift Thickness	
93.1	-1.80	-7.60
93.0	-2.00	-8.00
92.9	-2.20	-8.40
92.8	-2.40	-8.80
92.5	-3.00	-10.00
92.4	-3.20	-10.40
92.3	-3.40	-10.80
92.2	-3.60	-11.20
92.1	-3.80	-11.60
92.0	-4.00	-12.00
91.9	-4.40	-12.40
91.8	-4.80	-12.80
91.7	-5.20	-13.20
91.6	-5.60	-13.60
91.5	-6.00	-14.00
91.4	-6.40	-14.40
91.3	-6.80	-14.80
91.2	-7.20	-15.20
91.1	-7.60	-15.60
91.0	-8.00	-16.00
90.9	-8.00 and 5 year warranty	-16.00 and 5 year warranty
90.8	-8.00 and 5 year warranty	-16.00 and 5 year warranty
90.7	-8.00 and 5 year warranty	-16.00 and 5 year warranty
90.6	-8.00 and 5 year warranty	-16.00 and 5 year warranty
90.5	-8.00 and 5 year warranty	-16.00 and 5 year warranty
90.4	-8.00 and 5 year warranty	-16.00 and 5 year warranty
90.3	-8.00 and 5 year warranty	-16.00 and 5 year warranty
90.2	-8.00 and 5 year warranty	-16.00 and 5 year warranty
90.1	-8.00 and 5 year warranty	-16.00 and 5 year warranty
90.0	-8.00 and 5 year warranty	-16.00 and 5 year warranty
89.9	Remove & Replace	Overlay or Rm. & Rp.
89.8	Remove & Replace	Overlay or Rm. & Rp.
89.7	Remove & Replace	Overlay or Rm. & Rp.
89.6	Remove & Replace	Overlay or Rm. & Rp.
89.5	Remove & Replace	Overlay or Rm. & Rp.
89.4	Remove & Replace	Overlay or Rm. & Rp.
89.3	Remove & Replace	Overlay or Rm. & Rp.
89.2	Remove & Replace	Overlay or Rm. & Rp.
89.1	Remove & Replace	Overlay or Rm. & Rp.
89.0	Remove & Replace	Overlay or Rm. & Rp.
88.9	Remove & Replace	Overlay or Rm. & Rp.
88.8	Remove & Replace	Overlay or Rm. & Rp.

Payment Adjustment for Compaction		
Percent of Marshall Density	Payment Adjustment - Dollars per Tonne	
	Design Lift Thickness	
88.7	Remove & Replace	Overlay or Rm. & Rp.
88.6	Remove & Replace	Overlay or Rm. & Rp.
88.5	Remove & Replace	Overlay or Rm. & Rp.
88.4	Remove & Replace	Overlay or Rm. & Rp.
88.3	Remove & Replace	Overlay or Rm. & Rp.
88.2	Remove & Replace	Overlay or Rm. & Rp.
88.1	Remove & Replace	Overlay or Rm. & Rp.
88.0	Remove & Replace	Overlay or Rm. & Rp.
≤ 87.9	Remove & Replace	Overlay or Rm. & Rp.

.7 Payment

- i. Payment for this item shall be under the contract lump sum unit price (tonnes) for restoration including the labour, equipment and material required to complete the work. Include the cost of ramping at manhole covers and valve boxes and the cost of coating of frames, covers, grates and valve boxes with diesel fuel in the unit price for this item.
- ii. In the event, that a dispute arises regarding the placement of an insufficient thickness of hot mix asphalt, the Owner shall not be liable for the cost incurred for the replacement of the asphalt.

3.10 CONCRETE CURB AND GUTTER

- .1 This item shall include the supply and installation of concrete curb and standard gutter in disturbed areas as directed by the Contract Administrator, in accordance with OPSS.MUNI 353 and the OPSD 600.010.
- .2 When concrete curb and gutter is placed by the extrusion method, form contraction joints by saw cutting the hardened concrete within a sufficient time of placing of the curb and gutter to prevent uncontrolled cracking. Contraction joints may also be formed by the use of a “guillotine” knife in the wet concrete.
- .3 The width of the joint shall be 3 mm to 5 mm and the depth 65 mm minimum, at 6.0 metre maximum spacing.
- .4 When installing new catchbasin frames and covers in new sections of concrete curb and gutters, set the catchbasin frame in place at the same time the curb and gutter is placed. There will be no additional payment for resetting the catchbasin frame, if such is required.
- .5 Payment for this item will be under the lump sum for restoration and shall be full compensation for all labour, equipment and material required to complete the work and shall also include the removal of the existing curb & gutter within the excavation limits and the preparation of the granular base.

- .6 The unit price bid for curb and gutter shall include all costs of constructing or reconstructing all curb drops.

### 3.11 RECONSTRUCTION OF ASPHALT DRIVEWAYS

- .1 Reconstruct disturbed asphalt driveways as directed by the Contract Administrator in accordance with OPSS.MUNI 311. Reconstruction shall be equal to or better than the original construction and shall include excavation for and providing a minimum of 150 mm of new Granular 'A' base course material and at least a 50 mm course of HL 3 asphalt concrete. Where the existing driveways have driveway sealer, the Contractor shall supply and install one (1) coat of coal tar epoxy driveway sealer. **Any disturbance to an existing asphalt driveway shall require full-width restoration of the affected section, extending the entire length of the area disturbed.**
- .2 Construction to match existing lines, grades and limits to the satisfaction of the Contract Administrator.
- .3 Payment for this item shall be under the lump sum contract unit price for restoration in the Tender Form and shall include all labour, equipment and material required completing the work

### 3.12 CONCRETE WORK IN COLD WEATHER

- .1 The Contractor shall be responsible for taking all necessary measures to protect freshly laid concrete from adverse weather conditions, including hot weather, wind, rain, sleet, snow and cold weather, to the satisfaction of the Contract Administrator.
- .2 Concrete shall be adequately protected from freezing for a minimum of five (5) days after completion of placing operations. A minimum requirement for protection shall be provided as follows when the air temperature as forecast by Environment Canada is:
- a. When the air temperature is below 4.5°C, concrete shall be kept at a temperature of not less than 10°C or more than 27°C, while being mixed and placed, and maintained at a temperature of not less than 10°C for 72 hours after placing and no frozen material shall be used in the mix.
- .3 0°C to -3°C the concrete shall be covered with polyethylene film. Below -3°C two sheets of polyethylene film covering separated by 300 mm of dry straw.
- .4 Concrete damaged as a result of inadequate protection against weather conditions shall be removed and replaced by the Contractor at his own expense.
- .5 No separate payment will be made unless specifically indicated in the Tender Form.

### 3.13 SUPPLY AND PLACE TOP SOIL & SOD

- .1 This item includes all labour, equipment and material required to complete the work including the supply of topsoil, excavation, trimming, base preparation for topsoil, placing topsoil, placing sod, watering and fertilizing and such other materials as may be necessary. Areas identified on the contract documents or directed by the Contract Administrator shall receive a minimum of 75 mm (after compaction) of topsoil and work to be in accordance with OPSS.MUNI 802 & 803 (Except that fertilizer shall be 8-32-16 with an application rate of 10 kg/ 100 sq.m and applied subsurface.).
- .2 The Contractor shall not commence placement of topsoil until the sub-grade has been inspected and approved by the Contract Administrator. The Contractor shall provide the Contract Administrator with a minimum of two working days notice for inspection of required grading. The topsoil mix shall be applied to a minimum of 75 mm compacted depth for areas requiring sod. All areas shall be rolled with a mechanical roller of a minimum weight of 220kg and a minimum width of 760 mm.
- .3 Topsoil shall be manually spread around trees, shrubs and other obstacles. The Contractor shall ensure that topsoil does not come in contact with new asphaltic concrete pavement that is less than 2 weeks old.
- .4 The area shall be fine graded and the topsoil loosened. Eliminate rough spots and low ensure positive drainage. Prepare a loose friable bed by means of cultivation and subsequent Topsoil shall be rolled with a mechanical roller of a minimum weight of 220kg, minimum 760 mm roller, to consolidate it in areas to be seeded or sodded, leaving the surface smooth, firm against deep foot printing and to the satisfaction of the Contract Administrator.
- .5 Topsoil shall contain no toxic elements or growth inhibiting materials and the consistency is friable when moist. The finished surface of topsoil shall be free from; debris and stones over 50mm diameter, coarse vegetative material 10mm diameter and 100mm length occupying more than 2% of the soil volume, and couch or crabgrass rhizomes.
- .6 Topsoil shall meet the requirements of Table 1:

**TABLE 1  
TOPSOIL MATERIAL REQUIREMENTS:**

	Minimum	Maximum
Sand <sup>Note 1</sup>	40%	65%
Silt <sup>Note 1</sup>	20%	40%
Clay <sup>Note 1</sup>	15%	25%
Organic Matter <sup>Note 1</sup>	5%	11%
pH	6.0	8.0
Available Nitrogen	20 mg/kg	40 mg/kg
Phosphorus	10 mg/kg	60 mg/kg
Potassium	75 mg/kg	250 mg/kg
Calcium, Magnesium, Sulfur, and micro-nutrients	Note 2	Note 2

Notes:

1. Soil texture based on The Canadian System of Soil Classification
2. Present in balanced ratios to support germination and/or establishment of intended vegetation.

- .7 The following topsoil amendments are permitted as required to achieve the minimum requirements set out in Table 1:
- i. Fertilizer may be added as required. Fertilizer containing phosphorus shall only be applied subsurface, when seeding or sodding, by mixing it into the top layer of topsoil.
  - ii. Organic matter: compost Category A in accordance with CCME PN1340, unprocessed organic matter, such as rotted manure, hay, straw, bark residue or sawdust, meeting the organic matter, stability and contaminant requirements.  
  
Compost Category B may be used for landfill reclamation and large scale industrial applications.
  - iii. Peat Moss:
    - Derived from partially decomposed species of Sphagnum Mosses
    - Elastic and homogeneous, brown in colour
    - Free of wood and deleterious material, which could prohibit growth
    - Shredded particle minimum size: 5 mm
  - iv. Manure:
    - Well-rotted and aged a minimum of three (3) years
    - May be sheep or steer manure
  - v. Mushroom Compost

- vi. Sand: washed coarse silica sand, medium to course textured
- vii. Limestone:
  - Ground agricultural limestone containing minimum calcium carbonate equivalent of 85%
  - Gradation requirements: percentage passing by weight, 90% passing 1.0 mm sieve, 50% passing 0.125 mm sieve
- viii. Bone Meal:
  - Finely ground with a minimum analysis of 20% phosphoric acid
- .8 The Contractor shall be responsible for all Quality Control sampling and testing required to show complete conformance of the topsoil with this specification. These records shall be made available to the Contract Administrator upon request. The City reserves the right to further test the material. Failed QA tests will be charged to the Contractor.
- .9 Testing shall be conducted by a qualified laboratory holding a valid certificate from Ontario Ministry of Agriculture and Food (OMAFRA) and/or Canadian Association for Laboratory Accreditation (CALA).
- .10 Quality Control test results shall indicate conformance with pH, Organic Matter, Available Nitrogen, Phosphate, and Potassium parameters listed in Table 1.
- .11 Sod to be placed in accordance to OPSS 803;
  - i. stake sod on slopes greater than 3:1.
  - ii. Sod shall not be installed on boulevards until driveways are fully restored.
  - iii. If the thirty (30) day maintenance period extends after October 15th, the portion of the period after October 15th will continue the following year after May 15th.
- .12 Payment will be made under the lump sum contract price for restoration and shall be full compensation for all the labour, equipment, and material to do the work.

### 3.14 SUPPLY AND INSTALL SEED & MULCH

- .1 This item includes the supply and installation of seed and mulch. Lawns and grassed areas disturbed by construction shall receive a minimum of 100 mm (after compaction) of topsoil and seed and mulch, in accordance with OPSS.MUNI 804.
- .2 The seed supplier shall meet the standards and requirements of the Federal Government of Canada Seeds Act and Regulations.
- .3 Obtain approval of seed source by the Owner and/or Contract Administrator a minimum of 7 days prior to delivery of product to site.
- .4 When proposed source of seed is approved, use no other source without written authorization from the Contract Administrator.

- .5 The Contractor shall not commence seeding operations until the finished topsoil surface has been inspected and approved by the Contract Administrator. The Contractor shall provide the Contract Administrator with a minimum of two working days notice for inspection of the finished topsoil surface. Preparation of the finished topsoil surface shall be completed in accordance with OPSS.MUNI 804. Prior to placing the seed, Contractor shall ensure seeding bed to be smoothed out of any undulations or irregularities in the topsoil, free of rocks larger than 25 mm in diameter, and all deleterious and refuse material.
- .6 Sow during calm weather (winds less than 10 km/hr) using mechanical equipment, to the approval of the City and/or Contract Administrator. Seed at a rate as per supplier's recommendations. Sow half of required amount of seed in one direction and remainder at off-set angles or to overlap in the same direction to make 2 passes. Incorporate seed into soil to a minimum depth of 5 mm simultaneously or within one hour after seeding operation. Mix carefully with light chain harrow or wire rakes and roll area immediately afterward with water ballast type lawn or agricultural type roller.
- .7 All areas must be mechanically seeded prior to the mulch application. Seed and mulch must be applied on the same day.
- .8 Apply mulch by blower or by using a hydraulic mulcher as per supplier's recommendations.
- .9 Immediately after placement of seed, the Contractor shall water the area in sufficient quantities and frequencies required to obtain root development and seed growth. All costs to provide water for seeded areas shall be borne by the Contractor. These costs may include hydrant permit and meter rental fees.
- .10 Protect seeded areas against damage using a method approved by the Contract Administrator. Remove this protection after seeded areas have been accepted by the Owner and/or Contract Administrator. No additional payment or compensation will be made for this item and the item is deemed included within the contract unit price applicable to the tender item for which the work is required.
- .11 Payment will be made under the lump sum contract unit price for restoration and shall be full compensation for all labour, equipment and material required to complete the work.

### 3.15 DUST CONTROL

- .1 The Contractor shall ensure that his dust and mud control procedures are effective, sufficient, in force, and to the satisfaction of the Owner and/or Contract Administrator. Dust Suppression to be in accordance to OPSS.MUNI 506 and the contract documents Section 01000 "General Requirements" Sub-section 1.29 & 01561 "Environmental Protection" Sub-section 2.7).
- .2 The Owner reserves the right, without prior notice to the Contractor, to provide additional dust control measures, or street clean-up, or grading, as may be required, as a result of these construction works, and to deduct the cost of such works from the payment due to the Contractor.

- .3 Unless the contractor is directed to use Calcium Chloride by the Contract Administrator or Municipality, dust control shall be incidental and deemed included within the contract unit price applicable to the tender item for which the work is required. No additional payment or compensation will be made for this item.

### 3.16 RESTORATION FOR DISTURBED AREAS

- .1 This tender item includes the restoration of areas disturbed by construction. The Contractor shall complete restoration work to equivalent or better condition than pre-construction conditions. Restoration items will be completed to the following **minimum** requirements:
- i. Sodded Areas: 75mm topsoil (after compaction) and sod
  - ii. Other Grassed Areas: 100mm topsoil (after compaction) and seed
  - iii. Asphalt Areas: 150mm Granular 'A', Granular 'B' Sub-base to match existing thickness, 50mm HL4 c/w coal tar epoxy seal if existing asphalt is sealed
  - iv. Concrete Areas and concrete curbing: Match Existing
  - v. Granular Areas: 150mm Granular 'A'. Granular 'B' Sub-base to match existing thickness
- .2 Areas that have materials other than have been noted will be restored to match existing conditions.
- .3 Restoration to match existing lines, grades and limits to the satisfaction of the Contract Administrator.
- .4 Payment will be made under the lump sum contract unit price for restoration and shall be full compensation for all labour, equipment and material required to complete the work within the contract limits.
- .5 No additional payment shall be made for restoration considered outside of the contract work areas that is considered to be unnecessary by the Contract Administrator or resulting from contractor error or neglect, unless approved by the Contract Administrator.

### 3.17 TRAFFIC CONTROL SIGNAGE

- .1 This item includes the supply, locating, erecting, operating and maintaining of construction signs for the duration of the project, in accordance with OPSS.MUNI 706.
- .2 Traffic control shall be incidental and deemed included within the contract unit price applicable to the tender item for which the work is required. No additional payment or compensation will be made for this item.

### 3.18 SEDIMENT CONTROL

- .1 This item includes the supply, installation and regular maintenance of sedimentation control devices for the duration of the project, in accordance with OPSS.MUNI 805.

- .2 Sediment control shall be incidental and deemed included within the contract unit price applicable to the tender item for which the work is required. No additional payment or compensation will be made for this item.

### 3.19 ADJUSTMENTS TO EXISTING MANHOLES, CATCHBASINS AND VALVES & BOXES

- .1 This item shall include all labour, material and equipment required for removal of all existing rings, brickwork and mortar from the top of the existing structure, in accordance with OPSS.MUNI 408. A minimum of one to a maximum of three adjustment units shall be installed on the top of the structure, in accordance with OPSS.MUNI 408.07.08. If more than three adjustment units are required, the installation of a precast riser section will be required.
- .2 When there are adjustment units on an existing structure, adjustment units shall be added or removed as required so when the adjustment is completed there is a minimum of one to a maximum of three adjustment units on the top of the structure prior to placing the frame with grate or cover.
- .3 Extension stems and boxes shall be adjusted to the grades specified in the Contract Documents. Caps for valve boxes shall be installed flush with the final grade.
- .4 Payment for this item shall be included under the lump sum tender item for restoration, and shall include all labour, equipment and material required completing the work

### 3.20 COMPACTION

- .1 This tender item shall include all labour, material and equipment required to achieve appropriate compaction in accordance to OPSS.MUNI 501. Compaction requirements are as follows:
- .2 The density of fill, in place, shall be in accordance with latest revision of A.S.T.M. D698-70. Minimum 98% Standard Proctor Maximum Dry Density shall be the compaction requirements for all fill unless specifically noted or specified otherwise.
- .3 Maintain the optimum moisture content for all fill materials during backfilling and compaction operations, to achieve required compaction density. Deposit fill in layers of 300 mm loose thickness so that equipment being used for compacting can produce the specified compaction density.
- .4 Puddling or flooding with water for the purpose of consolidating granular fill, will not be permitted. The addition of water is only permitted to the extent required to provide the optimum moisture level of fill material.
- .5 During and immediately after levelling, thoroughly compact each layer of fill by use of compaction equipment of size and of a type to achieve the required degree of compaction without causing lateral forces which may result in the displacement of foundation

structures, retaining walls or curbs. Exercise caution in this regard to avoid movement of such structures.

- .6 After a period, adequate to reveal settlement has passed, place any required additional fill and compact in place to specification requirements so as to eliminate all depressions. Make good any subsequent settlement of any fill without extra cost to the Owner.
- .7 No separate payment will be made unless specifically indicated in the Tender Form. Costs to be included within the contract unit price applicable to the tender item for which the work is required.

# APPENDIX A

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## Geotechnical Assessment Report

TOWNSHIP OF NIPIGON

# Nipigon Hospital Sanitary Sewer Upgrades – Geotechnical Assessment Report

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Revision:

Final Rev 0

KGS Group Project:

24-0847-001

Date:

July 18, 2025

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# STATEMENT OF LIMITATIONS AND CONDITIONS

## Limitations

This report has been prepared for Township of Nipigon in accordance with the agreement between KGS Group and Township of Nipigon (the "Agreement"). This report represents KGS Group's professional judgment and exercising due care consistent with the preparation of similar reports. The information, data, recommendations and conclusions in this report are subject to the constraints and limitations in the Agreement and the qualifications in this report. This report must be read as a whole, and sections or parts should not be read out of context.

This report is based on information made available to KGS Group by Township of Nipigon. Unless stated otherwise, KGS Group has not verified the accuracy, completeness or validity of such information, makes no representation regarding its accuracy and hereby disclaims any liability in connection therewith. KGS Group shall not be responsible for conditions/issues it was not authorized or able to investigate or which were beyond the scope of its work. The information and conclusions provided in this report apply only as they existed at the time of KGS Group's work.

## Third Party Use of Report

Any use a third party makes of this report or any reliance on or decisions made based on it, are the responsibility of such third parties. KGS Group accepts no responsibility for damages, if any, suffered by any third party as a result of decisions made or actions undertaken based on this report.

## Geotechnical Investigation Statement of Limitations

The geotechnical investigation findings and recommendations of this report were prepared in accordance with generally accepted professional engineering principles and practice. The findings and recommendations are based on the results of field and laboratory investigations, combined with an interpolation of soil and groundwater conditions found at and within the depth of the test holes drilled by KGS Group at the site at the time of drilling. If conditions encountered during construction appear to be different from those shown by the test holes drilled by KGS Group or if the assumptions stated herein are not in keeping with the design, KGS Group should be notified in order that the recommendations can be reviewed and modified if necessary.

## 1.0 INTRODUCTION

Kontzamanis Graumann Smith MacMillan Inc. (KGS Group) was retained by the Township of Nipigon (Township) to provide geotechnical engineering services for the proposed sanitary sewer upgrades of the Nipigon District Memorial Hospital in Nipigon, Ontario.

The purpose of the geotechnical services is to conduct a site investigation to evaluate subsurface soil and groundwater conditions and to provide geotechnical design parameters and recommendations for the construction of the proposed sanitary sewer upgrades of the Nipigon District Memorial Hospital.

### 1.1 Scope of Services

The scope for the geotechnical engineering services was completed in general accordance with KGS Group's Proposal No. 24-000-0064 titled "*Feasibility/Environmental Assessment for Gravity Sewer Services – Nipigon District Memorial Hospital*", dated February 9, 2024.

KGS Group's proposed geotechnical scope of services included the following:

- Conduct a geotechnical investigation program comprised of utility locates, field drilling and sampling, and laboratory testing to identify the subsurface soils and groundwater conditions across the site.
- Prepare geotechnical assessment report outlining the methodology and results of the investigation program along with geotechnical related design recommendations for the proposed development.

## 2.0 PROJECT UNDERSTANDING

The Nipigon District Memorial Hospital property is located at 125 Hogan Road in Nipigon, Ontario, which also includes the Ambulance Centre and the John Jackson-Hughes Medical Center buildings. The hospital serves the healthcare needs of residents in Nipigon and the surrounding region. The project site has three (3) main access points: two (2) from Hogan Road and one (1) from First Street. Site photographs documenting existing conditions of the site along the proposed development are provided in Appendix A.

KGS Group understands that the existing Sewage Pumping Station (SPS) located near First Street has been subject to recurring issues related to blockages and clogging. The objective of this project is to address these operational challenges and to support the design and implementation of a long-term remedy. A site plan showing existing conditions of the site along with proposed development is provided in Figure 1.

### 2.1 Existing Utility Infrastructure

It is understood that the existing sanitary sewer system on the property collects sewage from the hospital, ambulance center, and medical center buildings. Effluent from the site is conveyed to a SPS, which is required to lift flows to discharge into the municipal sanitary sewer system along First Street. Recent reports from hospital staff have noted recurring issues with blockages at the SPS.

It is understood that the existing sanitary infrastructure is composed of clay tile piping, which could be near or beyond the end of its service life. The existing segment of sewer main located along First Street, between Fifth Street and Hogan Road, services a total of eight (8) residential lots and one (1) commercial lot. In addition, the municipal watermain runs along First Street, providing service to the surrounding residences and fire hydrants. Stormwater in this area is generally managed via roadside ditches.

### 2.2 Proposed Development

Based on our understanding, a total of three (3) alternative options had been previously explored by the Township at a conceptual level to improve the recent sewer issues including the following:

- Alternative 1: Re-configuration of section(s) of internal plumbing located within the Hospital building and construction of new sewer infrastructure throughout the Hospital Property and along Hogan Road.
- Alternative 2: Remove and replace the sanitary sewer along First Street to convert the sewage flow to gravity flow and ultimately eliminate the need for a SPS.
- Alternative 3: Install a new manhole along the sanitary sewer before the existing SPS and construct a new sanitary sewer across the property and along Hogan Road to First Street.

It is understood that upon completion of the feasibility study, the Township intends to proceed with the preferred Alternative 3 involving the installation of a new sanitary manhole upstream of the existing SPS, and construction of a new sanitary sewer alignment extending across the Nipigon District Memorial Hospital property and continuing along Hogan Road to First Street.

## 3.0 INVESTIGATION PROGRAM

The geotechnical investigation for this project consisted of a field drilling and sampling program and a laboratory testing program, which are outlined in the following subsections.

### 3.1 Utility Locates

Prior to conducting the field drilling and sampling program, KGS Group obtained underground utility clearances from public utility companies through Ontario One Call, the designated public safety authority. Additionally, a private utility locate subcontractor was retained to identify any existing private utilities located within the Hospital property.

### 3.2 Drilling and Sampling Program

A field drilling and sampling program was completed on June 3 and 4, 2025, under continuous supervision by KGS Group, with drilling services provided by Musko-Aski Geotechnical Drilling. Test hole drilling was performed using a CME-75 track mounted geotechnical drill rig equipped with 150 mm diameter hollow stem augers and auto hammer.

The field drilling and sampling program consisted of six (6) test holes in total—three (3) advanced along Hogan Road and three (3) along the hospital service road. All test holes were drilled to termination depths ranging between 3.7 to 4.4 m (12 to 15 ft). The test hole locations are as shown on the Proposed Overall Site Plan provided in Figure 1.

Test holes were logged in the field by KGS Group based on visual, physical, and textural properties in general accordance with Unified Soil Classification System (USCS). Representative soil samples were obtained from the test holes at 0.75 to 1.5 m (2.5 to 5 ft) intervals and/or at any change in the soil stratigraphy. Soil samples were collected directly from the auger flights and using a split spoon sampler. Standard Penetration Tests (SPTs) were collected at 0.75 to 1.5 m (2.5 to 5 ft) intervals to evaluate the compactness conditions of the soils encountered within the test holes. Handheld Torvane (TV) tests were conducted within the collected samples to assess the undrained shear strength of cohesive soils encountered within the test holes. All samples were visually inspected in the field for soil type and transferred to KGS Group's Thunder Bay Office for further inspection and laboratory testing.

Upon completion of drilling, test holes were examined for evidence of soil sloughing and groundwater conditions. Test holes TH25-01, TH25-02, and TH25-03, advanced along the Hogan Road section, were backfilled with auger cuttings and bentonite chips to the surface. Test holes TH25-04, TH25-05, and TH25-06, advanced along the hospital service road section, were backfilled with auger cuttings and patched with concrete mix at the surface. Excess auger cuttings were spread adjacent to each test hole.

A detailed description of the soil stratigraphy and groundwater conditions with laboratory test results are provided in Section 4.1 of this report and within the test hole logs provided in Appendix B.

The UTM coordinates of the test hole locations were collected using handheld GPS equipment with an accuracy of  $\pm 3$  m, and test hole elevations were then interpolated based on the topographic survey data collected by KGS Group. A summary of the test hole locations and elevations is provided in Table 1 below.

**TABLE 1: SUMMARY OF TEST HOLE LOCATIONS**

Test Hole ID	Location	Approximate UTM Coordinates (Zone 16N)		
		Northing (m)	Easting (m)	Elevation (m)
TH25-01	Along Hogan Road, ~100 m west of First Street	5,429,889	406,936	225.5
TH25-02	Along Hogan Road, ~160 m west of First Street	5,429,889	406,872	225.5
TH25-03	Along Hogan Road, ~225 m west of First Street	5,429,889	406,804	225.2
TH25-04	Along Service Road, ~40 m southwest of Medical Centre	5,429,907	406,779	227.0
TH25-05	Along Service Road, ~10 m southwest of Medical Centre	5,429,940	406,778	227.8
TH25-06	Along Service Road, ~25 m south of Ambulance Centre	5,429,979	406,779	228.0

### 3.3 Laboratory Testing

Laboratory tests were completed on representative soil samples to determine relevant properties for correlation to engineering parameters. The laboratory testing was completed at a laboratory certified by the Canadian Council of Independent Laboratories (CCIL) in Thunder Bay, Ontario. Laboratory testing included 21 moisture contents, four (4) particle size analyses, and four (4) Atterberg limits test on select soil samples.

The laboratory testing results are included on the test hole logs provided in Appendix B, and laboratory test summary reports provided in Appendix C.

## 4.0 INVESTIGATION RESULTS

### 4.1 Stratigraphy

In general, the stratigraphy at the site has been interpreted by KGS Group to consist of granular fill, underlain by silt and clay to termination depths ranging from 3.7 to 4.4 m (12 to 15 ft). A description of each soil layer is provided below. The detailed test hole logs are included within Appendix B, which also includes a key symbols summary sheet outlining the symbols and terms used on the test hole logs. Cross-sections A–A' and B–B', illustrating the soil stratigraphy encountered across the site, are presented in Figure 2 and Figure 3, respectively.

**Asphalt** – A 50 mm thick layer of asphalt was encountered at the surface of three (3) test holes along the service road within the hospital property (i.e., TH25-04 to TH25-06).

**Granular Fill** – 610 to 762 mm of granular fill was encountered in all test holes advanced throughout the project site. The granular fill was brown in color, dry, contained varying amounts of medium to coarse sand and fine gravel.

The results from SPTs completed within the granular fill showed uncorrected N-values ranging from 13 to 33. Based on six (6) moisture content tests completed, the moisture content within the granular fill ranged from 2 to 10%, with an overall average of approximately 5%.

**Silty Clay (CL-ML)** – Silty clay was encountered in test holes TH25-01, TH25-02, TH25-05 and TH25-06 underneath the granular fill and extended to termination depths ranging from 3.7 to 4.4 m (12 to 15 ft) below ground surface (BGS). The silty clay was dark brown to grey in colour, moist to wet, and contained trace amounts of sand.

The results from SPTs completed within the silty clay showed uncorrected N-values ranging from 4 to 13. Handheld Torvane (TV) tests conducted within the silty clay indicated an undrained shear strength ranging from 15 to 30 kPa, identifying the silty clay as soft to firm in terms of consistency.

Based on ten (10) moisture content tests completed, the moisture content of the silty clay ranged from 20 to 33%, with an overall average of approximately 26%. Based on two (2) Atterberg limit tests completed, the silty clay exhibited a liquid limit (LL) ranging from 22 to 26 and a plasticity index (PI) ranging from 6 to 7, classifying it as low plasticity (lean) clay.

**Silt (ML)** – Silt was encountered in test holes TH25-03 and TH25-04 below the granular fill and extended to depths ranging from 3.1 to 4.4 m (10 to 15 ft) BGS. The silt was brown to grey in colour, dry to wet, and contained varying amounts of clay and sand.

The results from SPTs completed within the silt showed uncorrected N-values ranging from 3 to 8, identifying the silt as very loose to loose in terms of compactness conditions. Handheld TV tests that could be completed in the silt indicated undrained shear strength ranging from 20 to 25 kPa.

Based on four (4) moisture content tests completed, the moisture content of the silt ranged from 14 to 36%, with an overall average of approximately 24%. Based on one (1) Atterberg limits test completed, the silt exhibited a LL of 25 and classified as non-plastic.

**Clay (CL)** – Clay was encountered in test hole TH25-03 below the silt and extended to the termination depth of 3.1 m (12 ft) BGS. The clay was light grey in colour, moist, and contained varying amounts of silt and sand.

The result from one (1) SPT completed within the clay indicated an uncorrected N-value of 8. Based on one (1) handheld TV test in the clay indicated undrained shear strength of 15 kPa, identifying the clay as soft in consistency.

Based on one (1) moisture content test completed, the moisture content of the clay was measured as 21%. Based on one (1) Atterberg limits test completed, the clay exhibited a LL of 29 and a PI of 11, classifying it as low plasticity (lean) clay.

## 4.2 Groundwater and Soil Sloughing Conditions

Groundwater seepage and soil sloughing conditions were recorded during and upon completion of drilling within each test hole. The groundwater and soil sloughing conditions observed within the test holes are summarized in Table 2 below.

**TABLE 2: OBSERVED GROUNDWATER AND SOIL SLOUGHING CONDITIONS**

Test Hole ID	Test Hole Depth (m)	Seepage Layer	Depth/Elev of Groundwater Seepage Observed During Drilling (m)	Depth/Elev of Groundwater Level Upon completion of Drilling (m)	Soil Sloughing Observations
TH25-01	3.7	N/A	None Encountered	Dry	Test hole caved to 2.1 m upon completion of drilling.
TH25-02	4.4	N/A	None Encountered	Dry	Test hole remained open to 4.4 m upon completion of drilling.
TH25-03	3.7	N/A	None Encountered	Dry	Test hole caved to 1.8 m upon completion of drilling.
TH25-04	4.4	N/A	None Encountered	Dry	Test hole remained open to 4.4 m upon completion of drilling.
TH25-05	4.4	N/A	None Encountered	Dry	Test hole remained open to 4.4 m upon completion of drilling.
TH25-06	3.7	N/A	None Encountered	Dry	Test hole remained open to 3.7 m upon completion of drilling.

It should be noted that only short-term seepage and soil sloughing conditions were observed within the open test holes. Groundwater levels normally fluctuate in response to seasonal conditions and following heavy precipitation or spring snow melt events.

## 5.0 PAVEMENT SURFACING RECOMMENDATIONS

It is our understanding that the existing granular-surfaced Hogan Road section (approx. 250 m) and the asphalt surfaced Hospital Service Road section (approx. 100 m) will be reconstructed as part of the proposed development for this project.

The pavement structure may be designed based on the recommendations provided in Table 3 below. The recommended pavement structures have been developed utilizing the American Association of State Highway and Transportation Officials (AASHTO) 1993 Guide for the Design of Pavement Structures.

**TABLE 3: PAVEMENT SURFACING SECTIONS**

Material	Asphalt Surfaced (mm) <sup>[1]</sup>	Granular Surfaced (mm) <sup>[1]</sup>	Minimum Compaction Requirement
Asphalt Pavement	50	N/A	N/A
Granular A (Base)	250	350	100% Standard Proctor
Granular B Type II (Sub-Base)	500	600	100% Standard Proctor
Subgrade	<ul style="list-style-type: none"> <li>• Proof-roll using a heavy roller.</li> <li>• Place non-woven geotextile and geogrid reinforcement over subgrade soil.</li> </ul>		

**Notes:**

1. 380,000 Equivalent Single Axle Loads (ESALs) for 15 year design life has been assumed.

It should be noted that the pavement surface sections are not based on actual traffic volume data, as this information was not available at the time this report was prepared. These are based on assumed traffic loading of 380,000 ESALs that can be reviewed along with the estimation of the anticipated vehicle types and frequencies. The recommended pavement structures may require adjustment if actual traffic loading conditions exceed the assumed values.

Preparation of subgrade and pavement construction should comply with the current Ontario Provincial Standard Specifications (OPSS). Inspection of the subgrade by qualified geotechnical personnel is recommended during subgrade preparation. Subgrade preparation and placement of granular base and sub-base for the proposed roadways should be completed as follows:

- The existing asphalt pavement surfacing materials must be removed in accordance with OPSS.MUNI 510.
- Remove all unsuitable material such as topsoil, peat, organics, and fill down to the native undisturbed silt/clay. Proof rolling and compaction of the subgrade should be completed using a heavy roller under the supervision of an experienced geotechnical engineer to identify unsuitable or soft areas and achieve a minimum compaction of 95% of the standard Proctor maximum dry density (SPMDD). If unsuitable subgrade soils such as peat, organics, loose silt or soft clay are encountered, they should be sub-excavated an additional 500 mm and backfilled with compacted granular sub-base to 98% of SPMDD with non-woven geotextile fabric as a separator between the subgrade and compacted granular fill.

Sub-excavation to the underside of the design pavement section may be required prior to placing granular base and sub-base fill, to achieve the specified elevation at the bottom of the pavement structure.

- Positive drainage shall be provided at both finished grade and subgrade level as further described in Section 7.3.
- A non-woven geotextile fabric along with geo-grid reinforcement should be placed as a separator between the subgrade and compacted granular fill.
- Granular A (Base) and Granular B Type II (Sub-base) should be in accordance with OPSS.MUNI 1010 and shall be free of organics and frozen material.
- Granular base and sub-base shall be placed in maximum 200 mm thick lifts and shall be compacted to 100% SPMDD.
- Granular base and sub-base course below roadways should be assumed to extend laterally beyond the pavement edges at a slope of 1:1 (H:V) down through the fill to native soil.
- Sieve analysis and compaction testing of granular materials should be conducted by qualified geotechnical personnel during construction, to confirm compliance with specifications and OPSS standards (i.e., OPSS.MUNI 1010 and OPSS.MUNI 501).

## 6.0 UTILITY INSTALLATIONS

### 6.1 Trench Excavations

The stability of trench excavations is a function of several factors, including the total time of the excavation is exposed, moisture conditions, soil type and consistency, and the contractor's operations. It is the responsibility of the contractor to maintain safe and stable slopes or design and provide suitable shoring during trench construction.

All excavation work must comply with the Province of Ontario Occupation Health and Safety Act and Regulations (OHSA) for Construction Projects (O.Reg. 213/91). A maximum side slope of 1H:1V can be used for all excavations that have a maximum depth of 1.0 m. Excavations deeper than 1.0 m should be reviewed and designed prior to construction by an experienced professional engineer with expertise in geotechnical engineering.

Open excavation side slopes should be covered to prevent from drying, or saturation and surface runoff should be directed away from excavations. Surcharge loads such as soil stockpiles, equipment, etc. should be kept at a minimum of 1 m or a distance equal to the depth of excavation away from the edge of excavation, whichever is greater.

If a deep excavation with a shoring system is considered, KGS Group recommends that an excavation and shoring plan should be prepared and submitted by a registered Professional Engineer who is skilled in these designs.

### 6.2 Subgrade Preparation

Trench excavation subgrades should remain undisturbed as much as possible to minimize post-construction differential movements and not be allowed to freeze during construction, and no frost shall be present in the subgrade prior to the placement of pipe bedding material. It is recommended that a flat-edged bucket be used to cut to final design grades. Disturbed soil or soft subgrade conditions encountered during construction should be over-excavated by a minimum of 300 mm and replaced with a granular fill compacted to at least 95% of the SPMDD. Vibratory features on compaction equipment should not be used in wet or unstable soil conditions. The granular fill shall consist of Granular A or Granular B (Type I, II, or III) with 100% passing the 26.5 mm sieve size, as per Table 3 of OPSS.PROV 1010. Conversely, a geotechnical engineer can make recommendations for the use of geotextiles and granular fill to stabilize trench subgrades, on a case-by-case basis.

### 6.3 Backfill and Compaction

Utility pipes should be backfilled with a minimum of 300 mm of pipe bedding material placed uniformly around the buried pipe. The bedding material should consist of Granular A or Granular B (Type I, II, or III) with 100% passing the 26.5 mm sieve size, as per Table 3 of OPSS.PROV 1010.

Bedding material shall be placed in uniform lifts not exceeding 200 mm in loose thickness and be compacted to a minimum of 100% of the SPMDD (i.e., according to OPSS.MUNI 501). Bedding material shall be placed on

each side of the pipe and shall be completed simultaneously under the haunches. At no time shall the levels on each side differ by more than the 200 mm uncompacted lift.

Backfill should consist of Granular B (Type I, II, or III) and shall be free of topsoil, roots, organics, oversized rocks, frozen or other deleterious materials. The in-situ fine-grained soil (silt and clay) shall not be used as backfill. Backfill above the pipe bedding up to the road sub-base shall be placed in maximum 200 mm loose lifts and compacted to at least 95% SPMDD, near optimum moisture content. Heavy wheeled compaction equipment shall not be used near the pipe and may only be used for backfilling a minimum distance of two (2) pipe diameters above the crown of the pipe. A free-draining granular material is not recommended for use as general trench backfill as this can create a “bathtub” effect that will be susceptible to buoyant effects, freeze-thaw cycles and frost jacking.

## 6.4 Horizontal Directional Drilling (HDD)

Where trenchless installation of utilities is required, Horizontal Directional Drilling (HDD) may be considered to minimize surface disturbance and maintain existing infrastructure and surface features. It is our understanding that utility installations may be completed by using HDD for this project.

At the project site, subsurface conditions generally consist of very soft to firm fine-grained soils (silts and clays) to the explored depths of approximately 3.7 to 4.4 m (12 to 15 ft) BGS. Cross-sections A–A’ and B–B’, illustrating the soil stratigraphy encountered across the site, are presented in Figure 2 and Figure 3, respectively. No groundwater seepage was observed during or immediately following the completion of drilling activities. Soil sloughing was noted in test holes TH25-01 and TH25-03 upon completion of drilling, at depths of approximately 1.8 m (5.9 ft) and 2.1 m (6.9 ft), respectively. It should be noted that only short-term seepage and soil sloughing conditions were observed within the open test holes. Groundwater levels normally fluctuate in response to seasonal conditions and following heavy precipitation or spring snow melt events.

As per Issued for 70% Review Civil Drawings, it is understood that the proposed below-ground utilities will include a sanitary sewer, with installation depths anticipated to range from approximately 1.3 to 3.0 m (4.3 to 9.8 ft). At these planned depths, the subsurface conditions are expected to consist of very soft to firm silts and clays. According to Table 1 of American Society for Testing and Materials (ASTM) Standard F1962-05, such soils are categorized under "Difficulties May Occur" with respect to their suitability for HDD. Therefore, the presence of very soft to firm silts and clays may pose challenges related to borehole stability, alignment control, and the risk of inadvertent returns (frac-outs).

If HDD is selected, the contractor shall undertake a detailed assessment of the subsurface conditions along the proposed drill path and implement appropriate drilling fluid management strategies. All HDD operations must conform to applicable standards and best practices, including appropriate tooling selection, drilling fluid containment, pressure monitoring, and environmental protection measures. A contingency plan shall be developed to address potential issues such as fluid loss, ground heave, or frac-outs.

## 7.0 OTHER DESIGN CONSIDERATIONS

### 7.1 Frost Penetration

The depth of frost penetration will vary depending on air temperature, ground cover, the type of fill used during development and other factors. The expected depth of frost penetration has been estimated assuming a design freezing index of 1900°C days, taken as the coldest winter over a 10-year period. The estimated maximum depth of frost penetration is 2.0 m assuming bare ground, no insulation, with snow cover on the surface (i.e.,  $n=1$ ). Good site drainage must also be maintained after development. Only well-graded granular materials should be utilized as structural backfill as they are less susceptible to the effects of frost heave.

### 7.2 Thermal Insulation

The depth of utility burial should be below the depth of frost penetration (minimum 2.0 m). Shallow buried utilities can be protected using closed cell extruded polystyrene (XPS) foam insulation. The amount and extent of insulation required will be dependent on several factors including the thermal regime around the pipe, the depth of burial, surface conditions, and fluid temperature, if present.

For shallow-buried utilities, it is recommended that horizontal insulation be installed to provide additional frost protection. This insulation should consist of HL-40 rigid foam panels, with a minimum thickness of 75 mm and a width of 2.0 m, placed horizontally above the pipe bedding. A minimum of 1.2 m of backfill cover is assumed to be placed above the insulation.

To protect the insulation from mechanical damage during backfilling, the first lift of fill placed directly above the insulation should be free of particles larger than 15 mm.

### 7.3 Surface and Subsurface Drainage

The finished pavement surface should be graded to approximately 2% to allow for the surface drainage of water to designated discharge outlet points. Additionally, positive drainage shall be provided at the subgrade level. The subgrade should be graded with a minimum 3% slope toward positively drained roadway ditches or perforated subdrains along both sides of the roadway.

For Hogan Road Section, shallow, wide drainage ditches are recommended as they produce lower water velocities and reduce erosion potential compared to deep, narrow ditches. Ditch depths should extend at least 300 mm below the bottom of the sub-base. Where ditches are constructed within Granular A (Base) and Granular B Type II (Sub-base), side slopes should not exceed a gradient of 3H:1V. Ditch surfaces should be protected from erosion using either riprap or a topsoil-and-seed treatment.

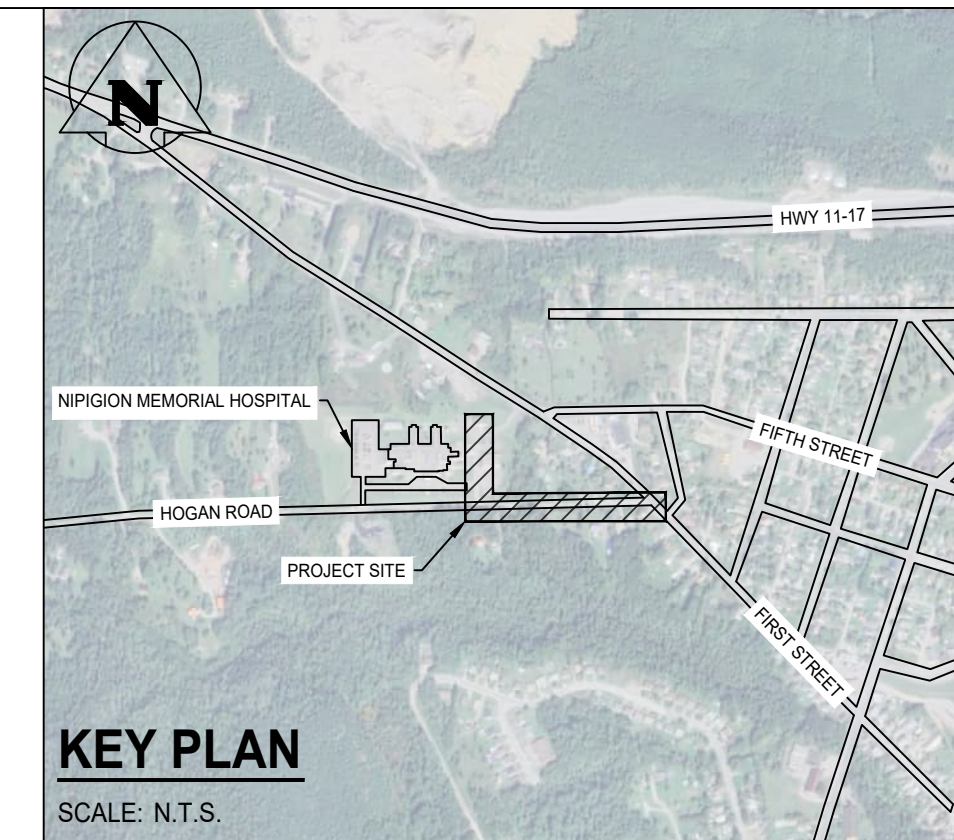
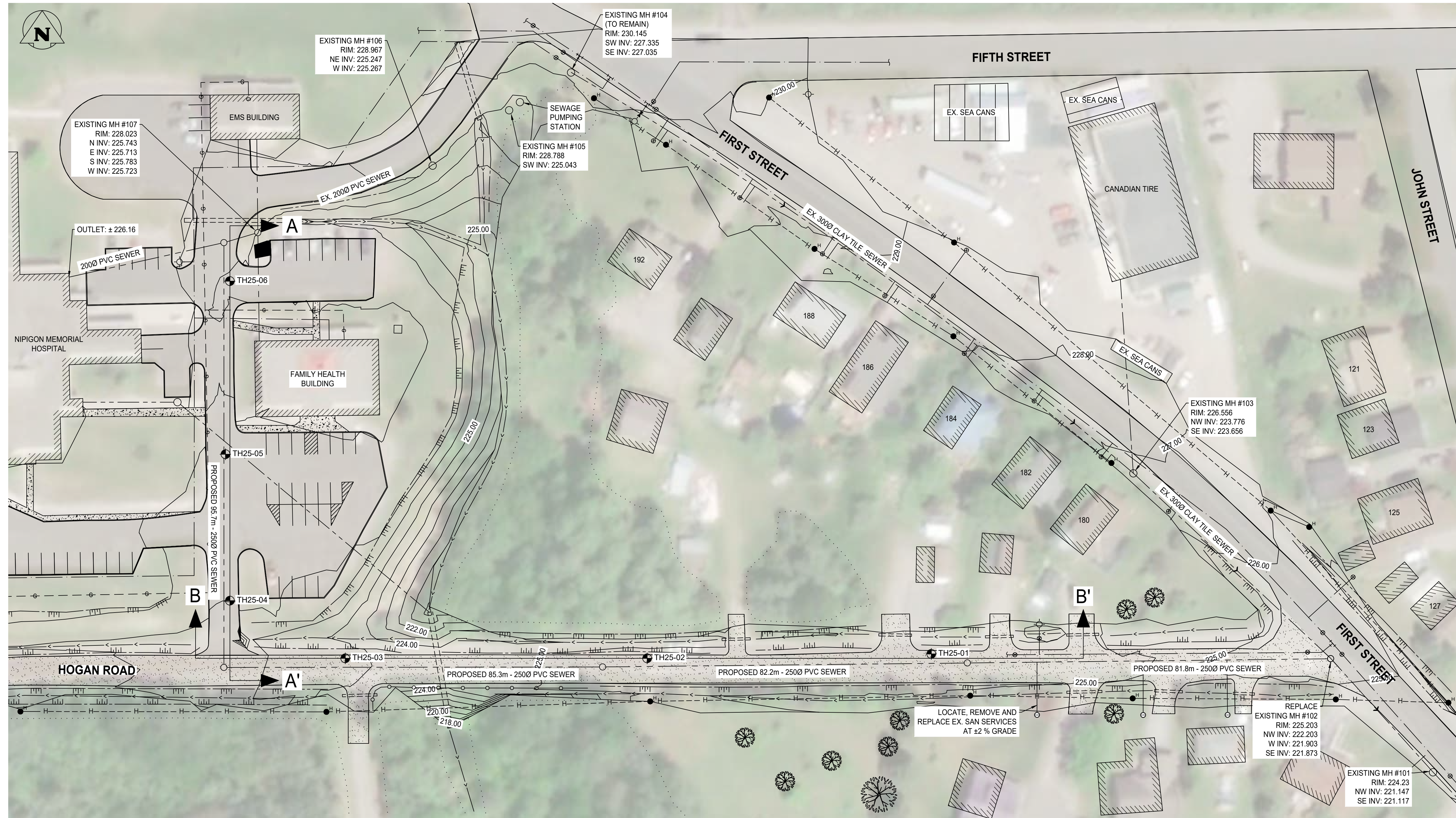
For the Hospital Service Road section, due to site constraints that prevent the construction of open ditches, a minimum 150 mm diameter perforated subdrain shall be installed along each edge of the service road, positioned below the sub-base in accordance with OPSD 216.021. The subdrain trench shall be backfilled with 19 mm clear stone (Type I, as specified in OPSS.MUNI 1004) and fully wrapped in non-woven geotextile. The subdrains shall be positively graded to discharge into a suitable free-draining outlet, such as a ditch, catch basin, or other approved drainage feature.

## 7.4 Construction Inspection Requirements

KGS Group should be retained to complete the following inspection services during construction (if required):

- Detailed construction records and full-time inspections by experienced geotechnical personnel are recommended to confirm subgrade soil type and conditions.
- Observe proof rolling of the subgrade beneath pavement sections. Proof rolling inspection by an experienced geotechnical engineer is required to identify unsuitable or soft areas that need to be sub-excavated and replaced with compacted granular fill.
- Sieve testing of granular base, sub-base and backfill to ensure that the supplied materials meet the required gradation specifications.
- Compaction of granular, subgrade, and backfill should be completed to ensure the indicated minimum compaction requirements are achieved.
- Testing of bituminous paving (asphalt) mixes.

# FIGURES



**KEY PLAN**

SCALE: N.T.S.

NOTE:  
LOCATION OF UNDERGROUND STRUCTURES AS SHOWN ARE BASED ON THE BEST INFORMATION AVAILABLE BUT NO GUARANTEE IS GIVEN THAT ALL EXISTING UTILITIES ARE SHOWN OR THAT THE GIVEN LOCATIONS ARE EXACT. CONFIRMATION OF EXISTENCE AND EXACT LOCATION OF ALL SERVICES MUST BE OBTAINED FROM THE INDIVIDUAL UTILITIES BEFORE PROCEEDING WITH CONSTRUCTION.

**WARNING**

1. NOTIFY THE GAS COMPANY OF THE PROPOSED LOCATION OF EXCAVATION.
2. TAKE PRECAUTION TO AVOID DAMAGE TO GAS COMPANY INSTALLATIONS.
3. SEE PROVINCIAL REGULATION 210/01 FOR DETAILS.

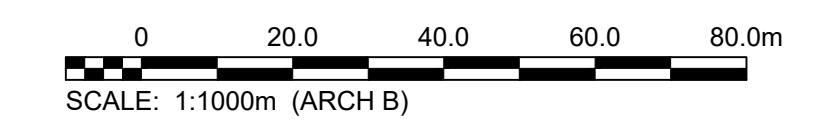
**METRIC**

WHOLE NUMBERS INDICATE MILLIMETRES  
DECIMALIZED NUMBERS INDICATE METRES

**NOTES:**

1. SURVEY PERFORMED BY KGS GROUP. (2024/03/19) SURVEY COMPLETED IN NAD83, CSRS, UTM16, CGVD2013.
2. ALIGNMENT, SIZE, AND GRADE OF WATER MAINS, FITTING, AND SERVICES SHOWN ARE APPROXIMATE AND BASED UPON THE INFORMATION DEPICTED IN THE TOWNSHIP'S MOST RECENT RECORD DRAWINGS.

**PRELIMINARY**  
NOT TO BE USED FOR CONSTRUCTION



**PROPOSED OVERALL SITE PLAN**

SCALE: 1:1000

**LEGEND**

**EXISTING FEATURES:**

- EDGE OF ASPHALT
- CONCRETE CURB
- WATERMAIN
- CURBSTOP
- SANITARY SEWER
- MANHOLE
- DITCH
- CULVERT
- GAS LINE
- FIRE HYDRANT
- WATERMAIN TEE
- HYDRO POLE
- TREE

- TOP OF SLOPE
- TOE OF SLOPE
- TREE LINE
- BUILDING
- GUARD RAIL
- OVERHEAD POWER LINE
- ASPHALT ROAD
- GRANULAR ROAD
- CONCRETE

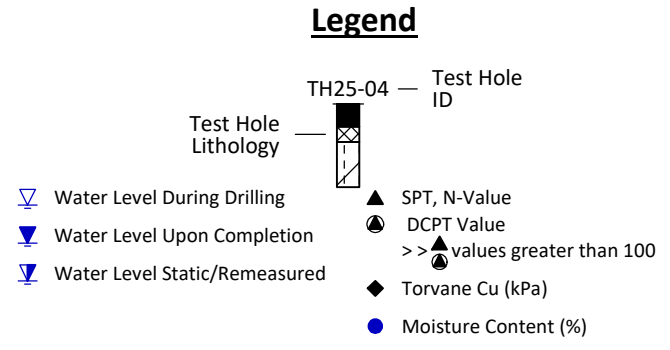
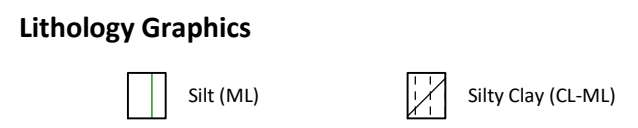
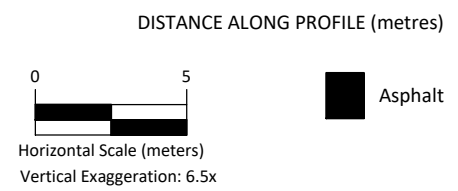
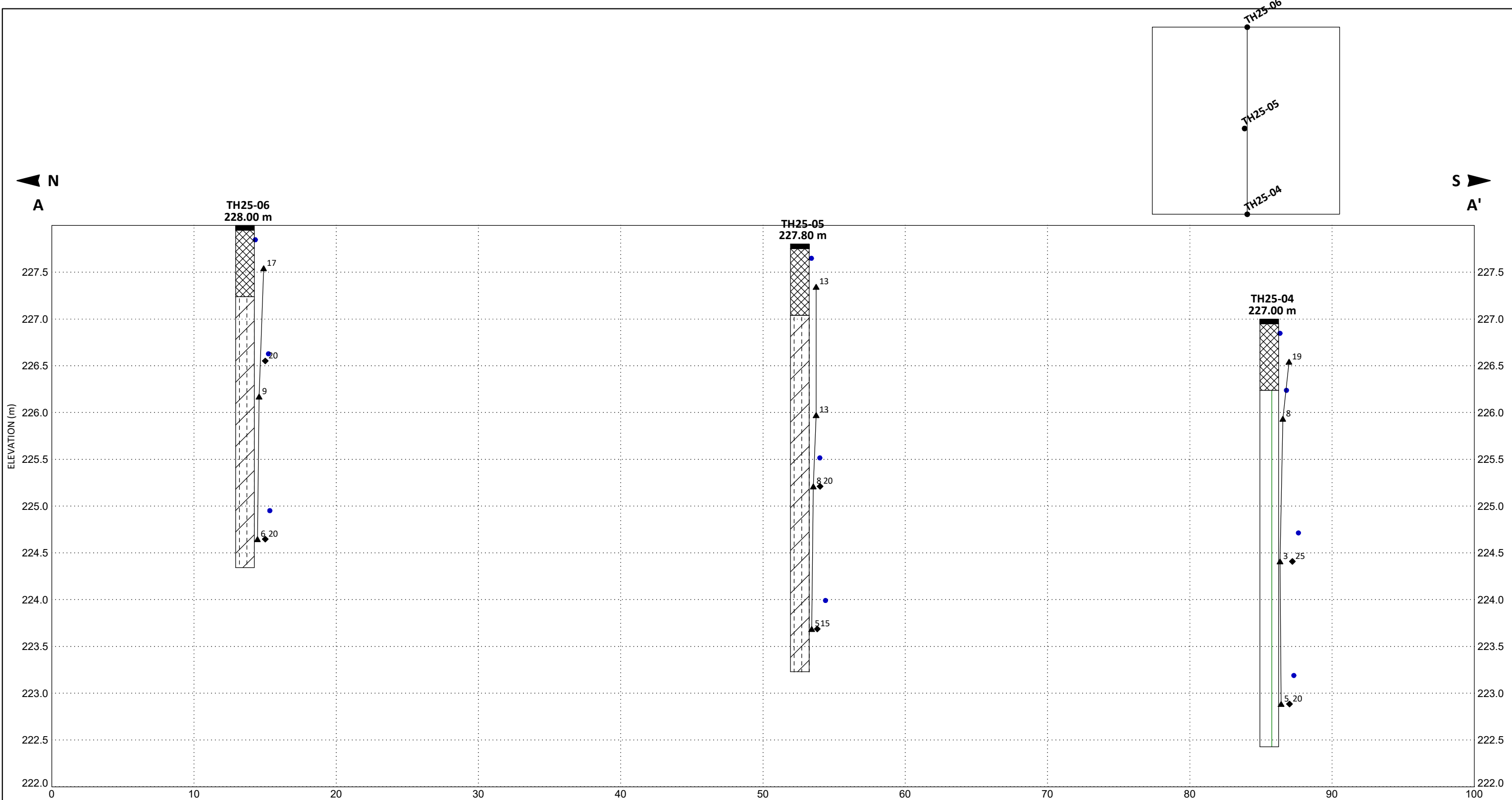
**DESIGN FEATURES:**

- SANITARY SEWER
- MANHOLE
- CLEANOUT
- GEOTECHNICAL TEST HOLES

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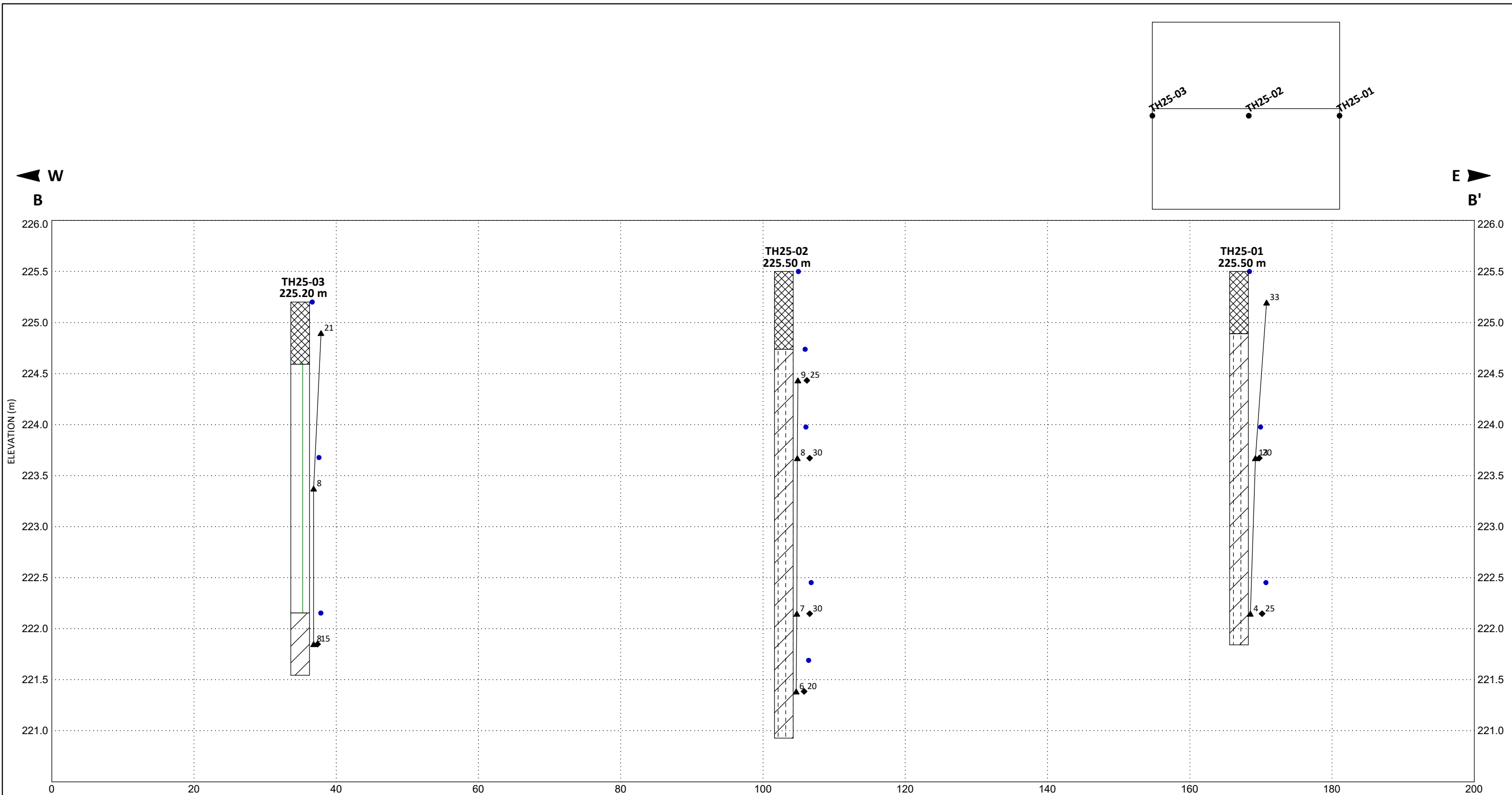
A	25/07/02	ISSUED FOR GEOTECHNICAL REPORT	KP	TE
NO.	YYMMDD	DESCRIPTION	DESIGN BY	DESIGN CHECK
REVISIONS / ISSUE				
CLIENT:				
PROJECT:				
<b>NIPIGON MEMORIAL DISTRICT HOSPITAL SEWER REALIGNMENT</b>				
DWG. DESCRIPTION:				
<b>PROPOSED OVERALL SITE PLAN</b>				
AUTHENTICATION FOR CURRENT REVISION				
ENG. STAMP		DESIGN BY:	DATE (YYMMDD):	
		KP	25/06/27	
		DESIGN CHECK:	DATE:	
		TE	25/07/02	
		DRAWN BY:	DATE:	
		NY	25/05/13	
		DWG CHECK:	DATE:	
		JK	25/06/24	
DWG. NO:		FIG 1		REV:
24-0847-001		FIG 1		0

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	<b>TOWNSHIP OF NIPIGON</b> Sanitary Sewer Upgrades - Nipigon District Memorial Hospital
	<b>A-A'</b>
<b>Jun 2025</b>	<b>FIG 02</b>

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**Lithology Graphics**

Horizontal Scale (metres)	Fill	Silty Clay (CL-ML)	Silt (ML)	Clay (CL, low plasticity)

Vertical Exaggeration: 14.5x

**Legend**

	Water Level During Drilling		SPT, N-Value
	Water Level Upon Completion		DCPT Value
	Water Level Static/Remeasured		Torvane Cu (kPa)
			Moisture Content (%)

Test Hole ID  
 Test Hole Lithology

>> values greater than 100

<b>KGS</b> GROUP	<b>TOWNSHIP OF NIPIGON</b>	
	Sanitary Sewer Upgrades - Nipigon District Memorial Hospital	
<b>B-B'</b>		
<b>Jun 2025</b>	<b>FIG 03</b>	

# **APPENDIX A**

Site Photographs



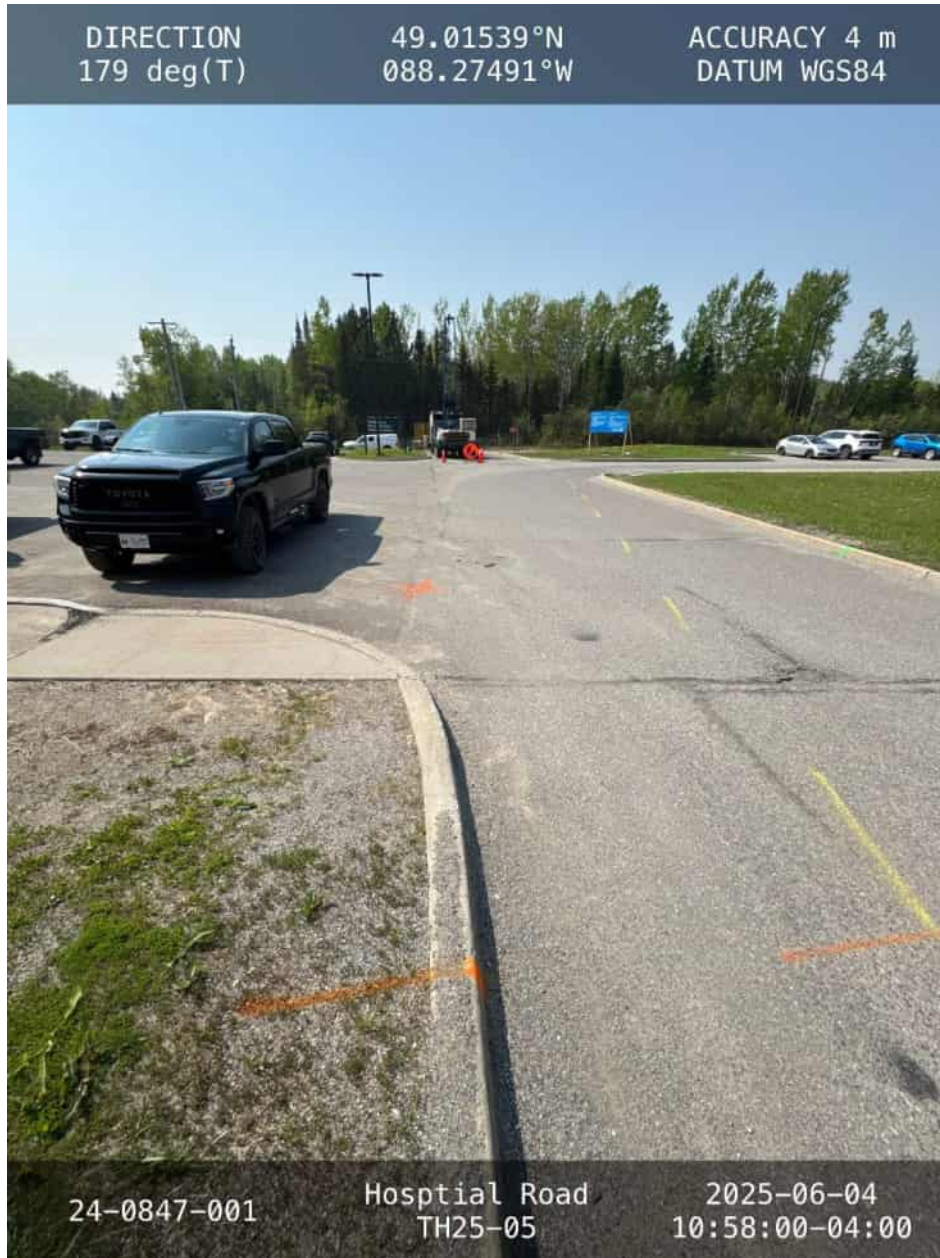
Photo 1: Traffic Signage Setup East of TH25-01 Along Hogan Road, Looking West



**Photo 2: Drill Rig Setup at TH25-02 Located Along Hogan Road, Looking East**



**Photo 3: Drill Rig Setup at TH25-03 Located Along Hogan Road, Looking East**



**Photo 4: Marked Utilities and TH25-05 Location Within Hospital Property, Looking South**



**Photo 5: Drill Rig Setup at TH25-05 Located Near Southwest Corner Of Medical Centre Building, Looking South**

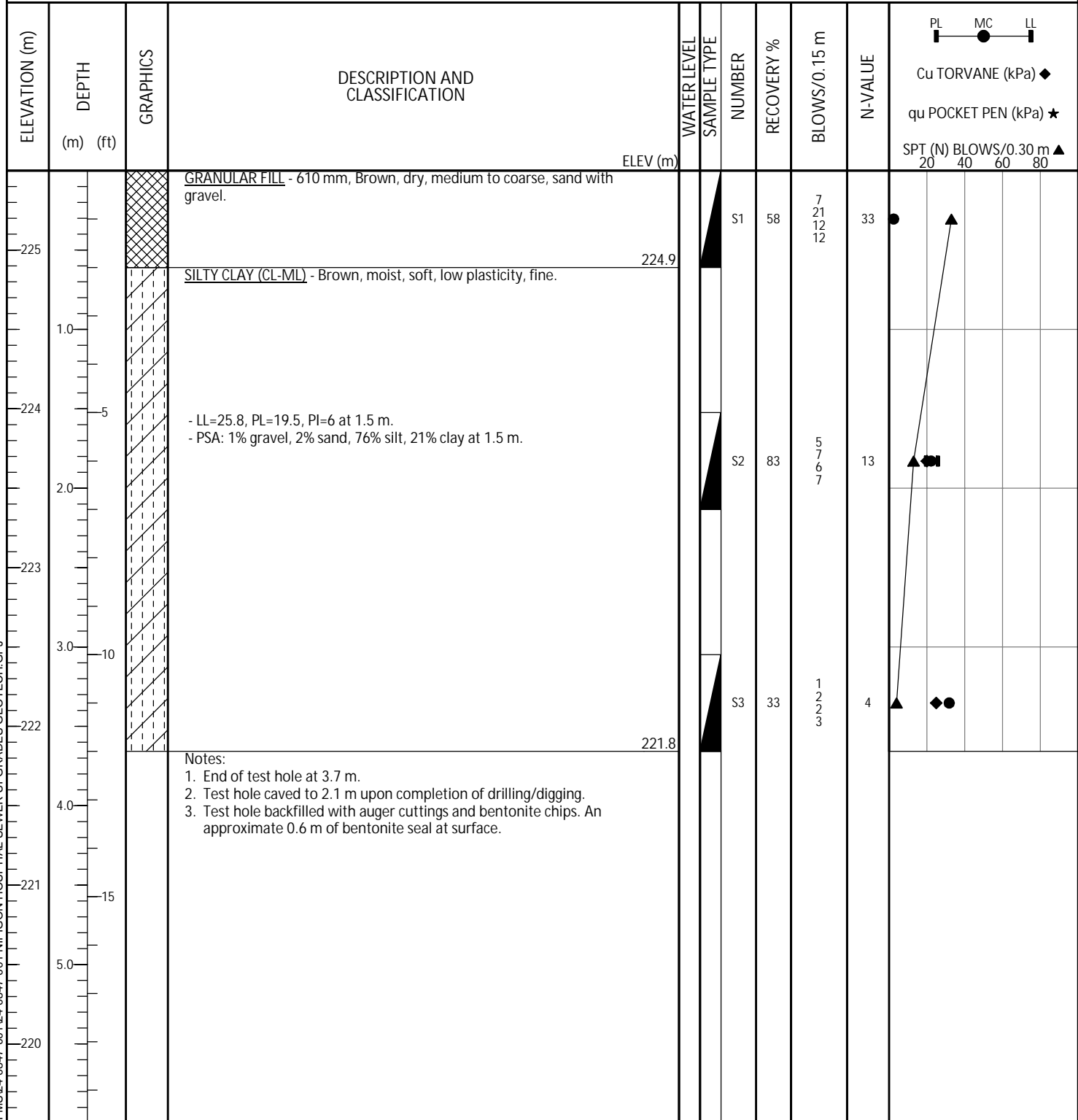


**Photo 6: Drill Rig Setup at TH25-06 Located South of Ambulance Centre Building, Looking Northeast**

# **APPENDIX B**

Test Hole Logs

CLIENT	TOWNSHIP OF NIPIGON	PROJECT NO.	24-0847-001
PROJECT	Sanitary Sewer Upgrades - Nipigon District Memorial Hospital	SURFACE ELEV.	225.50 m
LOCATION	Nipigon, Ontario	START DATE	6-3-2025
DESCRIPTION	Along Hogan Road, ~100 m west of First Street	UTM (m)	N 5,429,889 E 406,936 Zone 16
DRILL RIG / HAMMER	CME-75 Track Mounted Drill with Auto-Hammer		
METHOD(S)	0.0 m to 3.7 m: 150 mm ø HSA		



KGS LOG U:\AFMS\24-0847-001\24-0847-001 NIPIGON HOSPITAL SEWER UPGRADES GEOTECH.GPJ

WATER LEVELS	∇ During Drilling/Digging	None Encountered	CONTRACTOR	INSPECTOR
	▼ Upon Completion	on 6-3-2025 Dry	Musko-Aski Geotechnical Drilling	K. PATEL
			APPROVED	DATE
			T. ERNST	7-17-2025

CLIENT	TOWNSHIP OF NIPIGON	PROJECT NO.	24-0847-001
PROJECT	Sanitary Sewer Upgrades - Nipigon District Memorial Hospital	SURFACE ELEV.	225.50 m
LOCATION	Nipigon, Ontario	START DATE	6-3-2025
DESCRIPTION	Along Hogan Road, ~160 m west of First Street	UTM (m)	N 5,429,889 E 406,872 Zone 16
DRILL RIG / HAMMER	CME-75 Track Mounted Drill with Auto-Hammer		
METHOD(S)	0.0 m to 4.4 m: 150 mm ø HSA		

ELEVATION (m)	DEPTH		GRAPHICS	DESCRIPTION AND CLASSIFICATION	WATER LEVEL	SAMPLE TYPE	NUMBER	RECOVERY %	BLOWS/0.15 m	N-VALUE	Legend			
	(m)	(ft)									PL	MC	LL	
				GRANULAR FILL - 762 mm, Brown, dry, medium to coarse, sand with gravel.										
225							S1							
				SILTY CLAY (CL-ML) - Brown, moist, firm, low plasticity, fine.										
	1.0						S2	58	4 4 5 4	9				
224		5												
	2.0						S3	50	3 4 4 7	8				
223														
	3.0	10		- Light brown to grey below 3.0 m.										
222							S4	100	3 4 3 4	7				
	4.0			- Grey, wet, soft below 3.8 m.										
221		15					S5	58	2 3 3 5	6				
	5.0			Notes: 1. End of test hole at 4.4 m. 2. Test hole remained open to 4.4 m upon completion of drilling/digging. 3. Test hole backfilled with auger cuttings and bentonite chips. An approximate 0.6 m of bentonite seal at surface.										
220														

KGS LOG U:\AFMS\24-0847-001\24-0847-001 NIPIGON HOSPITAL SEWER UPGRADES GEOTECH.GPJ

WATER LEVELS	∇ During Drilling/Digging	None Encountered	CONTRACTOR	INSPECTOR
	▼ Upon Completion	on 6-3-2025 Dry	Musko-Aski Geotechnical Drilling	K. PATEL
			APPROVED	DATE
			T. ERNST	7-17-2025

CLIENT	TOWNSHIP OF NIPIGON	PROJECT NO.	24-0847-001
PROJECT	Sanitary Sewer Upgrades - Nipigon District Memorial Hospital	SURFACE ELEV.	225.20 m
LOCATION	Nipigon, Ontario	START DATE	6-3-2025
DESCRIPTION	Along Hogan Road, ~225 m west of First Street	UTM (m)	N 5,429,889 E 406,804 Zone 16
DRILL RIG / HAMMER	CME-75 Track Mounted Drill with Auto-Hammer		
METHOD(S)	0.0 m to 3.7 m: 150 mm ø HSA		

ELEVATION (m)	DEPTH (m) (ft)	GRAPHICS	DESCRIPTION AND CLASSIFICATION	WATER LEVEL	SAMPLE TYPE	NUMBER	RECOVERY %	BLOWS/0.15 m	N-VALUE	SPT (N) BLOWS/0.30 m ▲			
										20	40	60	80
225			GRANULAR FILL - 610 mm, Brown, dry, medium to coarse, sand with gravel. ELEV (m) 224.6			S1	58	10 11 10 11	21	●	▲		
			SILT (ML) - Brown, moist, soft, non-plastic, trace clay. ELEV (m) 222.2			S2	17	3 3 5 5	8	▲	●		
			CLAY (CL) - Light grey, moist, soft, low plasticity, trace silt. - LL=29.1, PL=18, PI=11 at 3.0 m. - PSA: 0% gravel, 3% sand, 63% silt, 34% clay at 3.0 m. ELEV (m) 221.5			S3	33	2 3 7	8	▲	●	◆	◆
			Notes: 1. End of test hole at 3.7 m. 2. Test hole caved to 1.8 m upon completion of drilling/digging. 3. Test hole backfilled with auger cuttings and bentonite chips. An approximate 0.6 m of bentonite seal at surface.										

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WATER LEVELS	∇ During Drilling/Digging	None Encountered	CONTRACTOR	INSPECTOR
	▼ Upon Completion	on 6-3-2025 Dry	Musko-Aski Geotechnical Drilling	K. PATEL
			APPROVED	DATE
			T. ERNST	7-17-2025

CLIENT	TOWNSHIP OF NIPIGON	PROJECT NO.	24-0847-001
PROJECT	Sanitary Sewer Upgrades - Nipigon District Memorial Hospital	SURFACE ELEV.	227.00 m
LOCATION	Nipigon, Ontario	START DATE	6-4-2025
DESCRIPTION	Along Service Road, ~40 m southwest of Medical Centre	UTM (m)	N 5,429,907 E 406,779 Zone 16
DRILL RIG / HAMMER	CME-75 Track Mounted Drill with Auto-Hammer		
METHOD(S)	0.0 m to 4.4 m: 150 mm ø HSA		

ELEVATION (m)	DEPTH		GRAPHICS	DESCRIPTION AND CLASSIFICATION	WATER LEVEL	SAMPLE TYPE	NUMBER	RECOVERY %	BLOWS/0.15 m	N-VALUE	Legend			
	(m)	(ft)									PL	MC	LL	
				ASPHALT - 50 mm. ELEV (m) 226.9										
				GRANULAR FILL - 712 mm, Brown, dry, medium to coarse, sand with gravel. ELEV (m) 226.2										
226	1.0	3.3		SILT (ML) - Brown, dry, firm, non-plastic.  - Light brown to grey, moist to wet, soft, low plasticity below 1.5 m.					9 10 5	19	●	▲		
	5	5							3 4 4	8	●	▲		
225	2.0	10							3 1 3	3	▲	◆	●	
224	3.0	15							1 2 3 4	5	▲	◆	●	
223	4.0			- Light grey, wet, soft, non-plastic below 3.8 m. - LL=24.6, PL=24.6, PI=NP at 3.8 m. - PSA: 0% gravel, 1% sand, 80% silt, 19% clay at 3.8 m.										
222	5.0			Notes: 1. End of test hole at 4.4 m. 2. Test hole remained open to 4.4 m upon completion of drilling/digging. 3. Test hole backfilled with auger cuttings. 4. Test hole surface patched with concrete mix. ELEV (m) 222.4										

KGS LOG U:\AFMS\24-0847-001\24-0847-001 NIPIGON HOSPITAL SEWER UPGRADES GEOTECH.GPJ

WATER LEVELS	∇ During Drilling/Digging	None Encountered	CONTRACTOR	INSPECTOR
	▼ Upon Completion	on 6-4-2025 Dry	Musko-Aski Geotechnical Drilling	K. PATEL
			APPROVED	DATE
			T. ERNST	7-17-2025

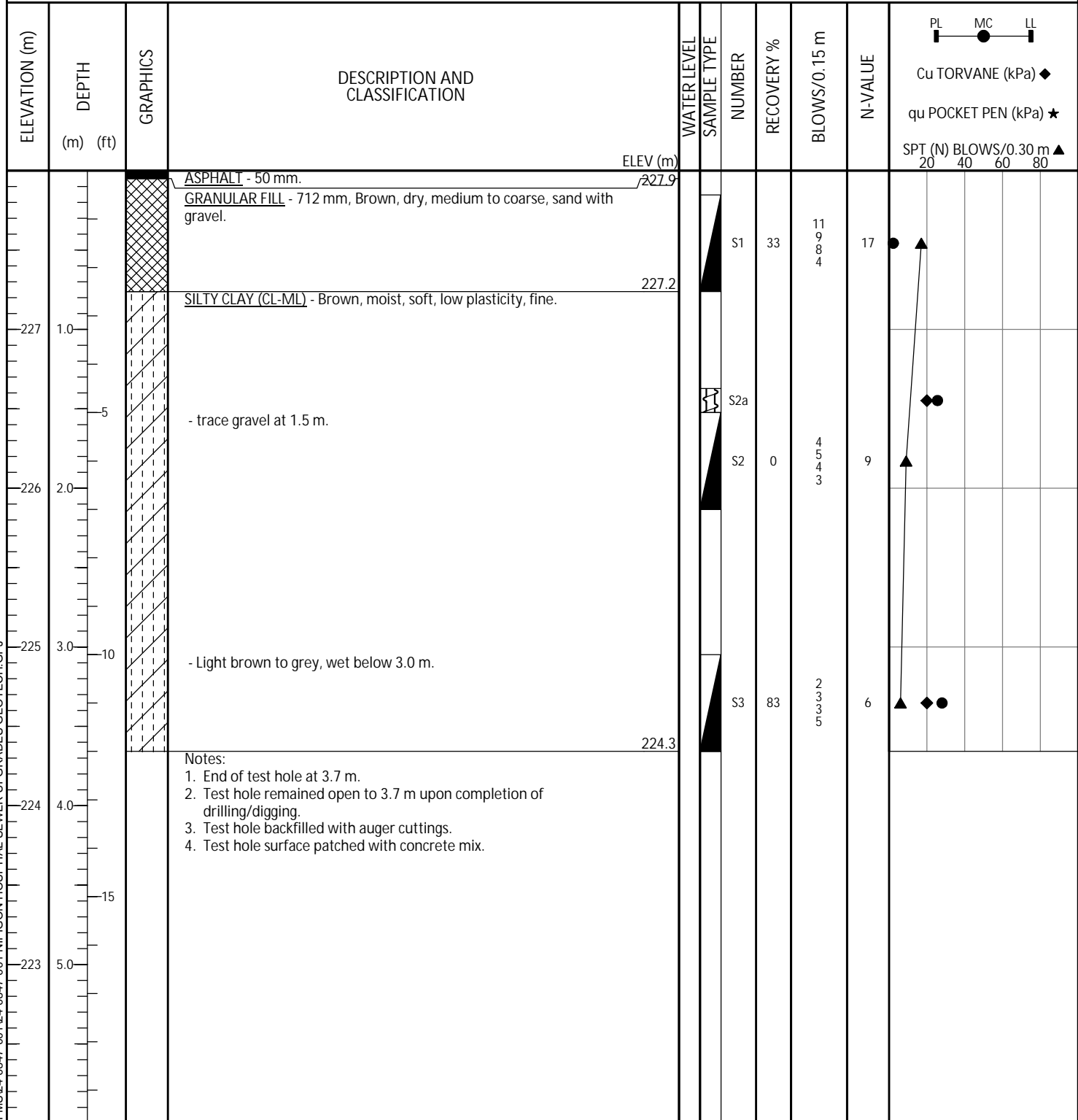
CLIENT	TOWNSHIP OF NIPIGON	PROJECT NO.	24-0847-001
PROJECT	Sanitary Sewer Upgrades - Nipigon District Memorial Hospital	SURFACE ELEV.	227.80 m
LOCATION	Nipigon, Ontario	START DATE	6-4-2025
DESCRIPTION	Along Service Road, ~10 m southwest of Medical Centre	UTM (m)	N 5,429,940 E 406,778 Zone 16
DRILL RIG / HAMMER	CME-75 Track Mounted Drill with Auto-Hammer		
METHOD(S)	0.0 m to 4.4 m: 150 mm ø HSA		

ELEVATION (m)	DEPTH		GRAPHICS	DESCRIPTION AND CLASSIFICATION	WATER LEVEL	SAMPLE TYPE	NUMBER	RECOVERY %	BLOWS/0.15 m	N-VALUE	Legend			
	(m)	(ft)									PL	MC	LL	
				ASPHALT - 50 mm.										
				GRANULAR FILL - 712 mm, Brown, dry, medium to coarse, sand with gravel.										
227.8														
227.0				SILTY CLAY (CL-ML) - Light brown, moist, soft, low plasticity.										
227	1.0	5		- trace gravel at 1.5 m.										
226	2.0	10		- LL=21.8, PL=15, PI=7 at 2.3 m. - PSA: 0% gravel, 8% sand, 72% silt, 20% clay at 2.3 m.										
225	3.0	15		- Light grey, wet, soft, low plasticity.										
224	4.0													
223.2	5.0													
223				Notes: 1. End of test hole at 4.4 m. 2. Test hole remained open to 4.4 m upon completion of drilling/digging. 3. Test hole backfilled with auger cuttings. 4. Test hole surface patched with concrete mix.										
222														

KGS LOG U:\FMS\24-0847-001\24-0847-001 NIPIGON HOSPITAL SEWER UPGRADES GEOTECH.GPJ

WATER LEVELS	∇ During Drilling/Digging	None Encountered	CONTRACTOR	INSPECTOR
	▼ Upon Completion	on 6-4-2025 Dry	Musko-Aski Geotechnical Drilling	K. PATEL
			APPROVED	DATE
			T. ERNST	7-17-2025

CLIENT	TOWNSHIP OF NIPIGON	PROJECT NO.	24-0847-001
PROJECT	Sanitary Sewer Upgrades - Nipigon District Memorial Hospital	SURFACE ELEV.	228.00 m
LOCATION	Nipigon, Ontario	START DATE	6-4-2025
DESCRIPTION	Along Service Road, ~25 m south of Ambulance Centre	UTM (m)	N 5,429,979 E 406,779 Zone 16
DRILL RIG / HAMMER	CME-75 Track Mounted Drill with Auto-Hammer		
METHOD(S)	0.0 m to 3.7 m: 150 mm ø HSA		








KGS, LOG\_U:\AFMS\24-0847-001\24-0847-001 NIPIGON HOSPITAL SEWER UPGRADES GEOTECH.GPJ



WATER LEVELS ∇ During Drilling/Digging ▼ Upon Completion	None Encountered on 6-4-2025 Dry	CONTRACTOR Musco-Aski Geotechnical Drilling	INSPECTOR K. PATEL
		APPROVED T. ERNST	DATE 7-17-2025

# KEY TO SYMBOLS

## LITHOLOGIC SYMBOLS

-  Asphalt
-  Clay (CL, low plasticity)
-  Silty Clay (CL-ML)
-  Fill
-  Silt (ML)

## SAMPLER SYMBOLS

-  Auger Grab
-  SPT Split Spoon

## WELL CONSTRUCTION SYMBOLS

## ABBREVIATIONS

- |   |   |
|---|---|
| <ul style="list-style-type: none"> <li>LL - Liquid Limit</li> <li>PL - Plastic Limit</li> <li>PI - Plastic Index</li> <li>MC - Moisture Content</li> <li>DD - Dry Density</li> <li>NP - Non-Plastic</li> <li>-200 - Percent Passing No. 200 Sieve</li> <li>TV - Torvane (kPa)</li> <li>PP - Pocket Penetrometer (kPa)</li> <li>PSA - Particle Size Analysis</li> <li>TOC - Top Of Casing</li> </ul> | <ul style="list-style-type: none"> <li>PN - Pneumatic Piezometer</li> <li>VW - Vibrating Wire Piezometer</li> <li>PID - Photoionization Detector</li> <li>ppm - Parts Per Million</li> <li>∇ - Water Level During Drilling</li> <li>▼ - Water Level Upon Completion of Drilling</li> <li>∇ - Water Level Remeasured/Static</li> </ul> |
|---|---|

# **APPENDIX C**

Laboratory Testing Summary Reports

# SUMMARY OF INDEX TESTS

Sheet 1 of 1

Test Hole ID	Sample No.	Depth (m)	Classification	Gravel (%)	Sand (%)	Silt/Clay (%)	Liquid Limit	Plastic Limit	Plasticity Index	Moisture Content (%)	Dry Density (kN/m <sup>3</sup> )	Specific Gravity	Saturation (%)	Void Ratio
TH25-01	S1	0.0	FILL							2				
TH25-01	S2	1.5	CL-ML	1	2	97	26	20	6	22				
TH25-01	S3	3.0	CL-ML							32				
TH25-02	S1	0.0	FILL							10				
TH25-02	S2	0.8	CL-ML							22				
TH25-02	S3	1.5	CL-ML							23				
TH25-02	S4	3.0	CL-ML							33				
TH25-02	S5	3.8	CL-ML							28				
TH25-03	S1	0.0	FILL							5				
TH25-03	S2	1.5	ML							17				
TH25-03	S3	3.0	CL	0	3	97	29	18	11	21				
TH25-04	S1	0.2	FILL							3				
TH25-04	S2	0.8	ML							14				
TH25-04	S3	2.3	ML							36				
TH25-04	S4	3.8	ML	0	1	99	25	NP	NP	28				
TH25-05	S1	0.2	FILL							5				
TH25-05	S3	2.3	CL-ML	0	8	92	22	15	7	20				
TH25-05	S4	3.8	CL-ML							30				
TH25-06	S1	0.2	FILL							2				
TH25-06	S2a	1.4	CL-ML							26				
TH25-06	S3	3.0	CL-ML							28				

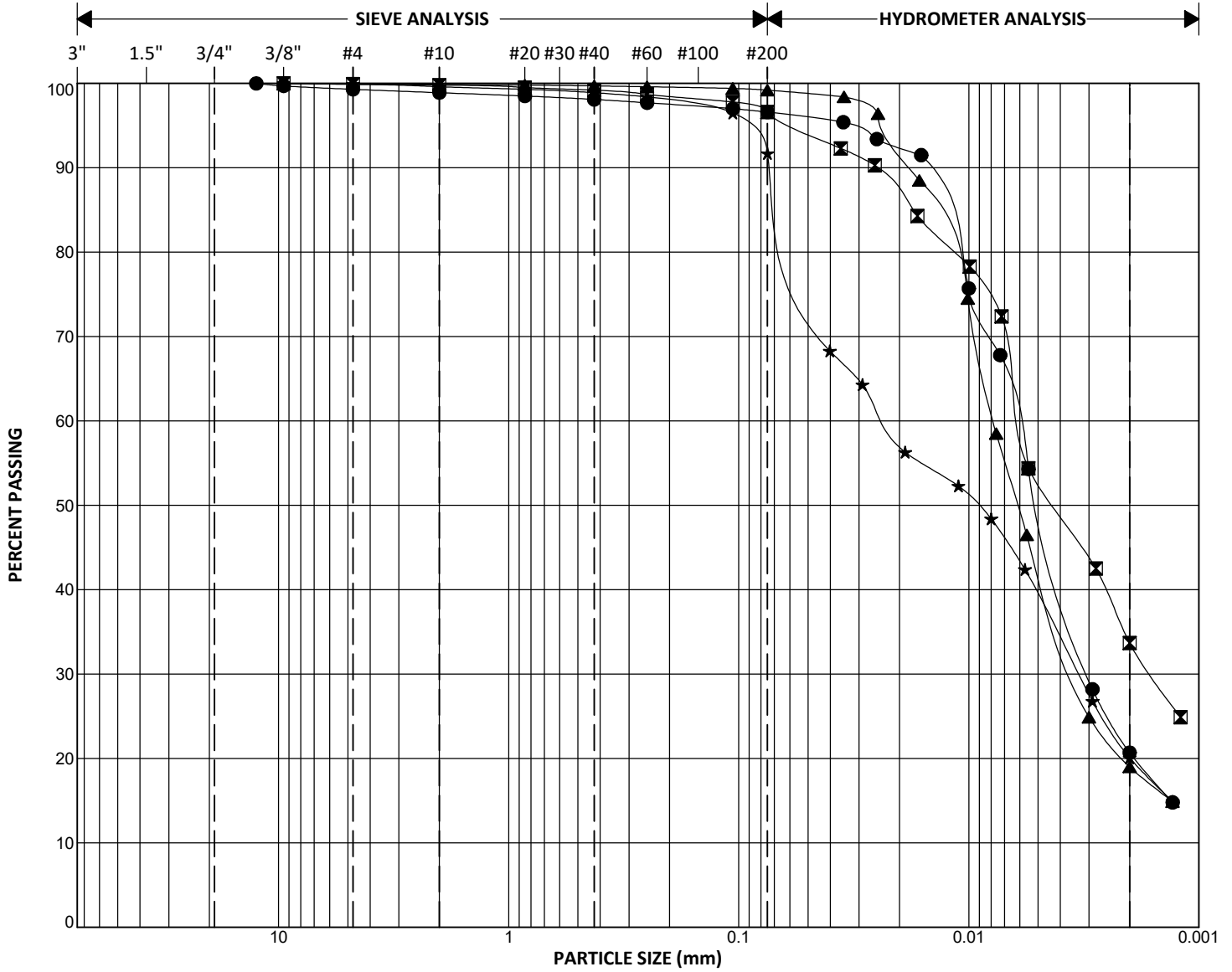
\* Moisture conditioned and remolded sample.  
 \*\* Assumed specific gravity.



CLIENT TOWNSHIP OF NIPIGON  
 PROJECT NAME Sanitary Sewer Upgrades - Nipigon District Memorial Hospital  
 TESTED BY Stantec

PROJECT NO. 24-0847-001  
 LOCATION Nipigon, Ontario  
 DATE TESTED 6-9-2025

# GRAIN SIZE DISTRIBUTION



GRAVEL		SAND			SILT	CLAY
coarse	fine	coarse	medium	fine		

HOLE	DEPTH (m)	SAMPLE #	GRAVEL (%)	SAND (%)	SILT (%)	CLAY (%)	SILT & CLAY (%)	Cu	Cc	CLASSIFICATION
● TH25-01	1.5	S2	1	2	76	21	97			CL-ML
⊠ TH25-03	3.0	S3	0	3	63	34	97			CL
▲ TH25-04	3.8	S4	0	1	80	19	99			ML
★ TH25-05	2.3	S3	0	8	72	20	92			CL-ML

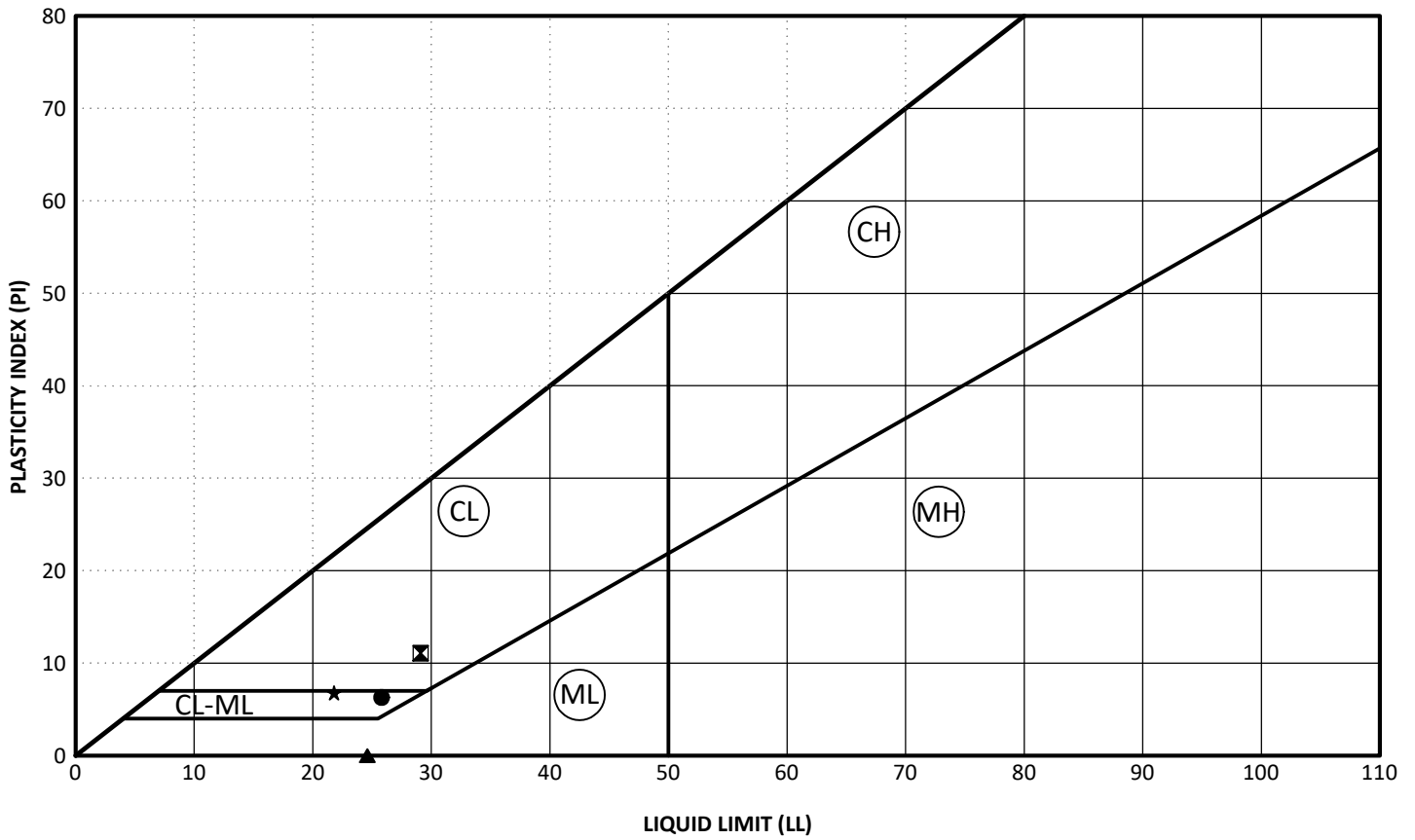
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**CLIENT** TOWNSHIP OF NIPIGON  
**PROJECT NAME** Sanitary Sewer Upgrades - Nipigon District Memorial Hospital  
**TESTED BY** Stantec

**PROJECT NO.** 24-0847-001  
**LOCATION** Nipigon, Ontario  
**DATE TESTED** 6-9-2025

# ATTERBERG LIMITS



	HOLE	DEPTH (m)	SAMPLE #	LL	PL	PI	SAND (%)	SILT (%)	CLAY (%)	SILT & CLAY (%)	MC (%)	CLASSIFICATION
●	TH25-01	1.5	S2	26	20	6	2	76	21	97	22	CL-ML
■	TH25-03	3.0	S3	29	18	11	3	63	34	97	21	CL
▲	TH25-04	3.8	S4	25	NP	NP	1	80	19	99	28	ML
★	TH25-05	2.3	S3	22	15	7	8	72	20	92	20	CL-ML

A-LINE PLOT (NO. C1) U:\FMS\24-0847-001\24-0847-001 NIPIGON HOSPITAL SEWER UPGRADES GEOTECH.GPJ

**KGS**  
GROUP

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Experience in Action