



**Prescott Recreation Complex
Town of Prescott**

**TOWN CONTRACT NO. SRC-01-2024
EVB PROJECT NO. 18121**

Issued for Tender
Date: September 18, 2024



TABLE OF CONTENTS

SECTION 1	INFORMATION FOR TENDERS
SECTION 2	FORM OF TENDER
SECTION 3	CONTRACT AGREEMENT
SECTION 4	SUPPLEMENTAL GENERAL CONDITIONS
	GENERAL CONDITIONS
SECTION 5	SPECIAL PROVISIONS

SCHEDULE OF SPECIAL PROVISION SECTIONS

Section No.	Description	No. of Pages
00110	Description of Provisional Items	1
01330	Submittals	9
01353	Procedures for Traffic Control	2
01410	Regulatory Requirements	1
01510	Temporary Services and Utilities	1
01560	Temporary Barriers and Enclosures	2
01561	Environmental Protection	2
01610	Product Requirements	7
01730	Record Documents	2
01740	Cleaning	2
01770	Closeout Procedures	5
02050	Demolition	5
02231	Clearing and Grubbing	6
02300	Materials Inspection and Testing	3
02310	Rough grade	4
02315	Excavating, Trenching and Backfilling	9
02631	Storm Sewers	4
02740	Asphalt Paving	6
02821	Chain Link Fencing	6
02920	Landscape Topsoil and Finish Grading	3
02930	Seeding	11
03300	Landscape Concrete	7

SCHEDULE OF DRAWINGS

EX-1	SITE PREPARATON PLAN
L-1	LAYOUT PLAN
L-2	GRADING PLAN
C1.1	SITE SERVICING PLAN
D-1	PAVING DETAILS
D-2	SPORTS COURT DETAILS
D-3	FENCING DETAILS
D-4	PLAY AREA AND SITE FURNISHING DETAILS

Prescott Recreation Complex

Town of Prescott

Contract No. SRC-01-2024

Project #: 18121

SECTION 1
INFORMATION FOR TENDERS

SECTION 1 - INFORMATION FOR TENDERERS

1.1 Description of Works

The following is a general but not necessarily complete description of the works to be constructed under this contract: provide all labour, materials and equipment to construct two soccer fields, tennis/pickleball courts, children's play area, skate pad, multi-use court, asphalt pathway and all related items and appurtenances.

1.2 Site Office (Not Applicable)

A site office as specified in the Special Provisions shall be provided by the Contractor.

1.3 Liquidated Damages

Liquidated damages in the amount of any direct costs as may be established by the Owner plus \$500 per day for each day that the work is not completed within the schedule as defined herein will be assessed against the contractor.

1.4 Delivery of Tenders

Tenders, sealed in an envelope clearly marked with the project or contract title (including the name of the Owner or area) and the contract number, if any, will be received by the Owner at the location stated in the tender advertisement for receipt of tenders on the advertised closing date and time for receipt of tenders. Before being placed in the tender box by the tenderer, the tender envelope will be marked by the Owner with the time and date the envelope is received. The use of the mails or courier for delivery of a tender will be at the sole risk of the tenderer and no consideration will be given to tenders deposited after the advertised deadline. Digital submissions (email, FTP, etc.) or facsimile submissions will not be accepted. Delivery to any employee of the Owner concerned with the reception or delivery of mail will not be considered as proper delivery unless the envelope is subsequently deposited in the tender box before the said closing time.

On the closing day, commencing approximately 15 minutes after the closing time, the envelopes will be opened and the tenders will be read and recorded publicly by a representative from the Owner and their agent in the location stated in the tender advertisement. Tenders will then be checked and analyzed and a report making recommendation to the Owner will be completed.

1.5 Disqualification of Tenders

Under no circumstances will tenders be considered which:

- a) Are received after the stipulated closing time, as recorded by the Contract Administrator on the date and at the place of tender, on the advertised closing date for tenders.
- b) Are not accompanied by a tender deposit equal to the amount specified herein.

1.6 Withdrawal of Qualifying of Tenders

A tender 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 tenderer for this contract.

A tender may withdraw or qualify their tender at any time up to the official closing time by submitting a letter bearing their signature and seal as in their tender to be delivered to the Contract Administrator. The submission must be deposited in the tender box, marked with a time and date of receipt before the stated tender closing. The tenderer shall show their name, the name of the project, and the contract number(s) on their submission.

1.7 Informal of Unbalanced Tenders

All entries in the Form of Tender shall be made in ink or electronically. Entries or changes made in pencil shall, unless otherwise decided by the Owner, be invalid or informal.

Tenders which are incomplete, conditional, illegible, or obscure, or that contain additions not called for, reservations, erasures, alterations (unless properly and clearly made and initialed by the tenderer's signing officer) or irregularities of any kind, may be rejected as informal.

Tenders that contain prices which appear to be so unbalanced as likely to affect adversely the interests of the Owner may be rejected.

Wherever in a tender the amount tendered for an item does not agree with the extension of the estimated quantity and the tendered unit price, the unit price shall govern, and the amount and the Total Tender Price shall be corrected accordingly, unless otherwise decided by the Owner.

A discrepancy in addition or subtraction in a tender shall be corrected by the Owner by adding or subtracting the items correctly and correcting the Total Tender Price accordingly, unless otherwise decided by the Owner. Where an error has been made in transferring an amount from one part of the Form of 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.

If a tenderer has omitted to enter a price for an item of work set out in the Form of Tender, they shall, unless they have specifically stated otherwise in their tender, be deemed to have allowed elsewhere in the Form of Tender for the cost of carrying out the said item of work and, unless otherwise agreed to by the Owner, no increase shall be made in the total Tender Price on account of such omission.

The Owner reserves the right to waive formalities at its discretion.

Tenderers who have submitted tenders that have been rejected by the Owner because of informalities will normally be notified of the reasons for the rejection within ten (10) days after the closing date for tenders.

1.8 Examination of Site

Each tenderer should visit the site of the work before submitting their tender and should satisfy themselves by personal examination as to the total conditions to be met with during the construction and conduct of the work. They shall make their own estimate of the facilities and difficulties to be encountered including the nature of the subsurface materials and conditions. They are not to claim at any time after submission of their tender that there was any misunderstanding of the terms and conditions of the Contract relating to site conditions.

The Owner has made no arrangements with private owners for site investigations to be carried out by prospective tenderers. If any person proposes to carry out any investigation on any property relative to the proposed works, they shall, before entering the said property, and any other property for the purpose of obtaining access to the said property, and before commencing the said investigation, contact each owner and occupant of the said properties and advise them of the nature and extent of the proposed investigation and obtain an agreement in writing thereto of all such owners and occupants. The person (or firm) who was responsible for carrying out such an investigation or for making use of any access as aforesaid shall reinstate promptly all property which has been disturbed by such investigation or by use of such access and shall be responsible for all damage and claims resulting therefrom in accordance with the said agreement of such owners and occupants.

With respect to any matter referred to in the foregoing paragraph, no person referred to therein is authorized to act as an agent of or to make any representation on behalf of the Owner and the Owner shall not be responsible for any disturbance to or reinstatement of any property or for any damage or claims referred to therein.

1.9 Tender

Each tender shall be in accordance with the General Conditions and shall include a completed Form of Tender, Statements A to C inclusive, an Agreement to Bond, all as bound herein and a tender deposit as required herein, together with any further forms or sheets which the tenderer is instructed elsewhere herein, or in any addendum hereto, to submit with their tender. The tenderer may retain the rest of the tender documents issued to them.

The tenderer shall give the total tender price both in words and in figures and, except as is otherwise specifically permitted in the Form of Tender, shall fill in all blank spaces for unit prices, item prices, lump sums, and other information in the Form of Tender. All prices tendered and all amounts to be paid will be in Canadian Dollars.

1.10 Omissions, Discrepancies, and Interpretations

Should a Tenderer find emissions from or discrepancies in any of the tender documents or should the Tenderer be in doubt as to the meaning of any part of such documents, the Tenderer shall notify the Owner or their representative without delay, and no later than two (2) business days before the closing date for tenders, as noted in the Tender Ad.

Communication between the Tenderer and the Owner or their representative must be in writing, and if the Consultant considers that a correction, explanation, or interpretation is necessary or desirable, an Addendum will be issued to all who have taken out tender documents. Addendum will be issued to all plan takers by email (with read receipts) and/or fax.

The Consultant will only make official modifications to the Tender by issuing official addendums. Any oral statement or other representation from any source is not accepted as binding, unless confirmed through an official written addendum.

As noted in the Tender Ad, the final addendum will be issued no later than one (1) business day before the closing date for tenders.

1.11 Quantities Are Estimated

The quantities shown for unit price items in the Form of Tender are estimated only and are for the sole purpose of establishing a dollar amount based on the unit price. For any work done or materials supplied on a unit price basis, the Contractor will be paid for the actual measured quantities at the respective unit prices tendered.

The Contract Administrator has the right to increase or reduce the quantities required or to suspend or omit any item or portion of the work at any time as they may deem advisable. The Contractor shall not be entitled to any compensation for loss of anticipated profit as a result of the deletion of any item or part of an item from the Form of Tender, unless said item is a Major Item as defined in the General Conditions.

1.12 Acceptance or Rejection of Tenders

Subject to the General Conditions, except as provided hereunder, neither the Contract Administrator nor any officer or employee of the Owner has authority to make or accept an offer or to enter into a contract on behalf of the Owner or to create any rights against or to impose any obligations on the Owner. The recommendation of a tender to the Owner for acceptance does not constitute acceptance of the tender by the Owner.

A tender is accepted by the Owner when an agreement in the form bound herein is executed by the Owner and by the tenderer or when the Contract Administrator, with the written authorization of the Owner and within the period referred to in Section 1.13 hereof, has issued a written order to commence work to the tenderer and the Owner or anyone acting on its behalf has requested the tenderer to execute the Agreement and to return it to the Owner and the acceptance of the tender and the execution of the Agreement by the Owner are subject to the express condition that the Owner receive a Performance Bond and a Payment Bond in accordance with the requirements hereof, within seven (7) days after notification of the execution of the agreement by the Owner has been mailed to the tenderer whose tender has been accepted as aforesaid.

The Owner shall not be responsible for any liabilities, costs, expenses, loss, or damage incurred, sustained or suffered by any tenderer prior or subsequent to or by reason of the acceptance or the non-acceptance by the Owner of any tender or by reason of any delay in the acceptance of a tender save as provided in the Contract. Tenders are subject to a formal contract being prepared and executed. The Owner reserves the right to reject any or all tenders and to waive formalities

as the interests of the Owner may require without stating reasons therefor and the lowest or any tender will not necessarily be accepted. If an insufficient number of tenders are received, tenders may be returned unopened.

1.13 Period of Validity of Tender

The tenderers attention is drawn to the Form of Tender, "Tender Validity Period", for the tender validity period. The prices entered by the Tenderer in the Form of Tender shall be based on the assumption that the Owner will notify the successful Tenderer in writing that their Tender has been accepted within forty-five (45) calendar days of the Tender Opening.

In addition, however, the tenderer shall enter in the space provided in the Form of Tender the extra lump sum price, if any, to be added to the Total Tender Price shown in the form of Tender if the Contract Administrator's written award of contract is issued to the tenderer after the aforesaid 45-day period has elapsed but within a 60-day period after the opening date for tenders.

The forgoing lump sum shall apply regardless of any difference between the Final Contract Price and the Original Contract Price.

Failure to enter the extra lump sum price in the space provided in the Form of Tender shall mean that the extra lump sum for extending the validity of tender to 60 days shall be considered NIL.

1.14 Tender Deposit

Each tender shall include a tender deposit in the form of a certified cheque, bid bond or bank draft and in the amount stated in the Form of Tender and payable as instructed in the Tender Ad. The tender deposits of all but the two (2) lowest tenderers will be returned within ten (10) days after the date of opening tenders. The tender deposits of the two (2) lowest tenderers will be retained until a tender has been accepted and the Performance Bond, the Labour and Material Payment Bond and the other documents required herein have been furnished to the satisfaction of the Owner, save that if a tenderer has not been requested by the Owner to execute the Agreement within 45 days after the date of opening tenders or if the Contract Administrator has not issued to the tenderer a written order to commence work within the said 45 days, their tender deposit will be returned, except as otherwise provided herein. After the execution of the Contract and the receipt by the Owner of the Performance Bond and the Labour and Material Payment Bond the tender deposit of the successful tenderer will be returned.

If either of the above-mentioned two (2) tenderers has not been notified within 45 days after the date of opening tenders that their tender has been recommended to the Owner for acceptance, they may apply to the Owner for the return of their tender deposit. Unless otherwise determined by the Owner, the tender deposit of one of the said two (2) tenders (normally the one who submitted the second lowest tender) will be returned when so applied for. The tender deposit of the other tenderer will be retained or returned by the Owner as provided for elsewhere in this Section.

The Owner may, at its discretion:

- a) Cash a tender deposit cheque and deposit the proceeds to its account, without prejudice to the ultimate disposition of such tender deposit as provided for herein; or
- b) Return a tender deposit to a tenderer at an earlier time than provided for herein; or
- c) Return a tender deposit to a tenderer on receipt from the said tenderer of an alternative security acceptable to the Owner in lieu of the said tender deposit; and no such action shall prejudice the validity of the tender to which such tender deposit relates.

Except as otherwise herein provided the tenderer guarantees that if their tender is withdrawn before the Owner shall have considered the tenders or before or after they have been notified that their tender has been recommended to the Owner for acceptance or that if the Owner does not for any reason receive within the period of seven (7) days as stipulated and as required herein, the Agreement executed by the tenderer, the Performance Bond and the Labour and Material Payment Bond executed by the tenderer and the surety company and other documents required herein, the Owner may retain the tender deposit for the use of the Owner and may accept any tender, advertise for new tenders, negotiate a contract or not accept any tender as the Owner may deem advisable.

1.15 Agreement

The tenderer agrees that, if requested so to do by the Owner or anyone acting on its behalf within 60 days after the date of opening tenders, they will execute in quadruplicate and return to the Owner the Agreement in the form bound herein within seven (7) days after being so requested. If the tenderer has not been so requested within the said 60 days or if the Contract Administrator's written order to commence work has not been mailed or delivered to the tenderer or their office or their postal address within the said 60 days, the tenderer may, unless they have otherwise agreed or offered and except as otherwise provided herein, withdraw their tender.

1.16 Performance and Payment Bonds

The Contractor, together with a surety company shall, unless otherwise directed, furnish to the Owner a Performance Bond and a separate Labour and Material Payment Bond each in the amount of one hundred percent (100%) of the total tender price. The bonds shall be those issued by a bonding agency licensed to operate in the Province of Ontario and in a form satisfactory to the Owner. The tenderer shall tender for the cost of the bonds in the item provided for that purpose in the Form of Tender on the assumption that each bond will be in the amount of 100% of the total tender price.

The tenderer shall include with their tender the Agreement to Bond executed under its corporate seal by the surety company from which they propose to obtain the required bonds. The tenderer will be required to furnish the Performance Bond and the Labour and Material Payment Bond in triplicate as required within seven (7) days after notification of the execution of the Agreement by the Owner has been mailed to them. One copy of the said bonds shall be bound into each of the three (3) executed sets of the Contract.

1.17 Proof of Ability

In order to aid the Owner in determining the responsibility of each tenderer, the tenderer shall complete the following statement sheets in the form of tender:

- a) Statement "A" – Stating the tenderer's experience in similar work which they have successfully completed.
- b) Statement "B" – Giving a list of the tenderer's senior supervisory staff to be employed on the Contract with a summary of the experience of each.

1.18 Subcontractors

The tenderer shall give in Statement "C" of the tender documents the name and address of each proposed subcontractor used in making their tender. Only one subcontractor shall be named for each part of the work to be sublet.

If the successful tenderer wishes to substitute a subcontractor other than the one named in Statement C of the Form of Tender for a specific item of work, they shall submit documentation to the Contract Administrator pertaining to the proposed subcontractor's experience and competence to carry out the work. Employment of the proposed subcontractor on the works is subject to the written approval of the Contract Administrator.

The term "subcontractor" shall not include suppliers of preselected equipment unless otherwise specifically stated in these documents or directed.

1.19 Workplace Safety and Insurance Board

The Contractor shall provide the Contract Administrator with copies of a Certificate of Clearance from the Workplace Safety and Insurance Board as further described in the General Conditions of the contract.

1.20 Occupational Health and Safety

To avoid any misunderstanding as to the nature of the work to be performed herein, the Contractor by executing this contract, unequivocally acknowledges that it is the constructor within the meaning of the Occupational Health and Safety Act, and the Contractor undertakes to carry out the duties and responsibilities of a constructor with respect to the work.

It is specifically drawn to the attention of the tenderer that the Occupational Health and Safety Act provides in addition to other matters that, "A constructor shall ensure, on a project undertaken by the constructor that:

- (a) the measures and procedures prescribed by this Act and the regulations are carried out on the project.
- (b) every employer and every worker performing work on the project complies with this Act and the regulations; and,

(c) the health and safety of workers on the project is protected.”

1.21 Canadian Labour and Material

Unless otherwise specifically approved in writing by the Contract Administrator or specified in the Contract the Contractor shall employ Canadian labour. He shall utilize materials, parts, and equipment of Canadian manufacture in constructing the works wherever possible. Provincial policy provides for a preference of up to ten percent (10%) for Canadian content in the analysis of tenders.

1.22 Cost of Power and Facilities at the Site

The Contractor shall provide and shall bear the costs of all electricity, fuel, water, and sanitary facilities required for, or at the site of, the works up to the date of substantial performance as established by the Certificate of Substantial Performance. Such costs incurred after the said date shall be borne by the Owner save that any such costs incurred in completing unfinished work or rectifying deficiencies may, at the discretion of the Contract Administrator, be charged against the Contractor.

1.23 Review of Shop Drawings

The Contractor (or subcontractor or equipment supplier acting on behalf of the Contractor) shall submit to the Contract Administrator in accordance with a procedure to be stipulated by the Contract Administrator all shop, working, or setting drawings required in order to make clear the work proposed. The Contractor shall make any changes in such drawings that the Contract Administrator may require.

When submitting such drawings, the Contractor shall notify the Contract Administrator in writing of all respects in which such drawings differ from the requirements of the Contract or from previously notified requirements of the Contract Administrator. The Engineer's review of such drawings shall not be construed as approval of such differences unless the Contractor has complied with the preceding sentence hereof and unless the Contract Administrator has specifically approved such differences in writing.

The Contract Administrator's review of such drawings shall not relieve the Contractor from responsibility for the correctness of the drawings or the adequacy of the details shown on the drawings.

Work shall not be carried out before the Contract Administrator's review of the shop, working, or setting drawings relating to such work has been carried out.

1.24 Machinery and Equipment Supplied by the Contractor

The Contractor is responsible for ensuring that all machinery and equipment supplied by them, or by any subcontractor under the Contract, complies with the requirements of the Contract and in particular with the requirements of the Specifications for machinery and equipment, and that all suppliers of such machinery and equipment comply with such requirements. Failure on the part

of a supplier to comply with such requirements shall not relieve the Contractor of responsibility for ensuring that the requirements of the Contract are fulfilled.

1.25 Harmonized Sales Tax

The total tendered amount noted in the Form of Tender shall be exclusive of Harmonized Sales Tax. Payments of the Harmonized Sales Tax will be made to the contractor in conjunction with amounts certified as due on Monthly Payment Certificates as approved by the Contract Administrator. The amount of tax due will be shown as a separate item.

1.26 Non-Resident Contractor

If the Contractor is non-resident in Ontario, they shall, immediately after they have received the Contract Administrator's written order to commence work, obtain from the Retail Sales Tax Branch a certificate showing that the Contractor has registered with the Retail Sales Tax Branch and shall submit such certificate to the Owner at the same time that they furnish the Performance Bond and the Labour and Material Payment Bond.

If the Contractor is non-resident in Ontario, they shall not commence work or order any materials or equipment for the Contract until they have registered with the Retail Sales Tax Branch.

The Contractor shall ensure that all subcontractors whom they propose to use for carrying out any of the work required by the Contract and who are non-resident in Ontario have registered with and have complied with the requirements of the Retail Sales Tax Branch before they commence any such work.

1.27 Insurance

The Contractor shall procure and maintain insurance, naming the Owner and Contractor Administrator as additionally insured in accordance with the General Conditions and Supplemental General Conditions.

1.28 Access to Existing Operating Facilities During Construction

The Contractor is reminded that it is essential that continuous access be provided to existing operating facilities within the vicinity of the working area during the entire construction period. Therefore, the Contractor will be required to schedule work and construct necessary temporary works as necessary to ensure this requirement is met. All costs anticipated for compliance with this clause shall be included in the Tender Price.

1.29 Lump Sum for Other Requirements

In this item of the Schedule of Items and Prices, or in the case of a lump sum type contract, in the Breakdown Schedule, the tenderer shall enter his tender price for providing items such as watchmen, permits and approvals (other than those to be paid by the Owner), items required by the Drawings or Specifications but which have been omitted from the Schedule and other items

required by the Contract but not specifically covered by or related to the other items in the Schedule.

1.30 Layout

The Contractor shall be responsible to lay out the project. A series of stakes shall be placed at all new structures and at maximum 25 metre intervals and off set to property line to delineate the stations as per the Contract Drawings.

If requested, georeferenced (NAD83) AutoCAD Civil 2D 2021 drawings will be provided to the Contractor, subject to the signature of a "CAD Drawing Release Waiver" by the Contractor. Alternatively, the Contractor will be given central coordinates.

AutoCAD drawings will not be provided during the tender period.

1.31 As-Built Records

The Contractor is responsible to provide redline "as-built" drawings, which shall be updated as the project progresses and will be verified by the Contract Administrator for completeness and accuracy. "As-built" drawings shall include:

- (a) Geodetic centerline elevation of all roads and or streets at 25 m spacing,
- (b) Any modifications made during construction (plan view and profile view as applicable),
- (c) Plan view locations of all surface features (grates, valves, hydrants, curb stops, etc.) as surveyed by the Contractor at the completion of the project. Contractor shall also provide the Contract Administrator with a points file of all surface features, complete with northings, eastings, elevations, and descriptions.

"As-built" records must be submitted prior to the issuance of Substantial Performance.

1.32 Coordination with Property Owners

The Contractor shall be responsible to coordinate water shutdowns, location of new services and laterals, driveway closures, etc. with affected property owners.

The Contractor shall be receptive to requests from property owners to complete additional work on private property, such as reconstruction of driveways, laterals, services, etc. beyond the limits shown on the Contract Drawings.

It is understood that work on private property beyond the limits shown on the Contract Drawings will not be paid for by the Town.

1.33 Job Showing (N/A)

There will be no mandatory job showing.

SECTION 2
FORM OF TENDER

SECTION 2 - FORM OF TENDER

Project Name: **Prescott Recreation Complex – Town of Prescott**

Project No: **18121**

Tenderer's Business Name: _____

Business Address: _____

Type of Business: Proprietorship Corporation Partnership
(Place checkmark in appropriate box)

Note: The Tenderer's name and address must be inserted above, and, in the case of a partnership, the name and residence of each and every member of the firm must be listed.

HST Number: _____

To: **The Corporation of the Town of Prescott**
(herein referred to as the Owner)

I (We)_____ having carefully examined the locality and site of the proposed works, and having read, understood and accepted the Agreement, **Addendum(s) No. _____ to _____ inclusive***, Special Provisions, Contract Drawings, Information to Bidders, Supplemental Specifications, Standard Specifications (if any), Form of Tender, Supplemental General Conditions, General Conditions attached hereto, each and all of which forms part of this Tender, hereby offer to furnish all machinery, tools, labour, apparatus, plant and other means of construction; all materials, except as otherwise stated in the Contract; and to complete the work in strict accordance with the Contract Documents, being the Contract or Contracts herein being referred to, on the terms, conditions and time specified and under the provisions set out or called for in the Contract Documents for the Total Tendered Amount of:

_____/100

dollars (\$_____) excluding HST, being made as shown in the Form of Tender – Schedule of Items and Prices.

* **THE TENDERER WILL INSERT HERE THE NUMBER OF THE ADDENDA ISSUED DURING THE TENDERING PERIOD AND TAKEN INTO ACCOUNT IN PREPARING THE TENDER.**

2.1 SCHEDULE OF ITEMS AND PRICES

Item	Description	Unit	Tender Quantity	Unit Price	Tender Amount
1	Construction of the Recreation Complex works and all related items and appurtenances (excluding provisional items – see item no. 2 below)	LS	1		
2	Total Price of Provisional Items (as described under Schedule of Provisional Items)	LS	1		
3	Contingency Allowance	LS	1	\$75,000	
TOTAL TENDERED AMOUNT (Excl. HST)					\$

2.2 SCHEDULE OF PROVISIONAL ITEMS

Provide a lump sum price for each of the provisional items listed in the schedule below and further described in Section 00110 – Provisional Items. All items must be priced. The sum of the provisional items shall be entered as item 2 in the Schedule of Items and Prices and included in the total tendered amount.

If the items priced in the following Schedule are deemed, in the Owner's sole and absolute discretion, to be unrealistic, abnormally low or not representative of the fair market value, the Owner reserves the right to request substantiation for the pricing submitted. If the Owner determines the pricing for any or all Provisional items to be unrealistic, abnormal or unbalanced in anyway, in the Owner's sole and absolute discretion, they reserve the right to reject the bid.

Item	Description	Unit	Tender Quantity	Unit Price	Tender Amount
P1	Ball Stop Fencing	LS	1		
P2	Replace Skate Pad Concrete Base with Asphalt	LS	1		
P3	Apply 2 Coats of Acrylic Resurfacer with Sand and 3 Coats of Colour to the Entire Pickle Ball/Tennis Courts area	LS	1		
TOTAL VALUE OF PROVISIONAL ITEMS (To be inserted into Item no. 2 of Schedule of Items and Prices)					\$

2.3 DECLARATION OF TENDERER

The Tenderer declares that:

- a. No person, partnership, or corporation other than the Tenderer has any interest in this Tender or in the proposed Contract for which this Tender is made and that this Tender is made without any connection, knowledge, comparison of figures or arrangements with any other person, partnership or corporation submitting a Tender for the same work and is in all respects made without collusion or fraud.
- b. No member of the Municipal Council and no employee of the Municipality or of the Contract Administrator is or will become interested directly or indirectly as a contracting party, partner, surety or otherwise in or in the performance of the Contract or in the supplies, work, or business to which it relates, or in any portion of the profits thereof, or in any of the monies derived therefrom.
- c. The prices offered in this schedule takes into account in all respects the cost of execution of the work under all weather conditions.
- d. The Tenderer acknowledges that the Owner shall have the right to reject any, or all, Submissions for any reason, or to accept any Submission which the Owner, in its sole unfettered discretion, deems most advantageous to itself. The lowest, or any, Submission will not necessarily be accepted, and the Owner shall have the unfettered right to:
 - i. Accept a non-compliant Submission;
 - ii. Accept a Submission which is not the lowest Submission; and
 - iii. Reject a Submission that is the lowest Submission even if it is the only Submission received.
- e. The Tenderer acknowledges that the Owner reserves the right to consider, during the evaluation of Submissions;
 - i. information provided in the Submission document itself.
 - ii. information provided in response to enquiries of credit and industry references set out in the Submission.
 - iii. information received in response to enquiries made by the Owner of third parties apart from those disclosed in the Submission in relation to the reputation, reliability, experience, and capabilities of the Tenderer.
 - iv. the manner in which the Respondent provides services to others.
 - v. the experience and qualification of the Tenderer's senior management, and project management,
 - vi. the compliance of the Tenderer with the Owner's requirements and specifications; and
 - vii. whether the Tenderer has been involved in litigation with the Owner during the last sixty (60) months before the date this request for Tender.
- f. The Tenderer acknowledges that the Owner may rely upon the criteria which the Owner deems relevant, even though such criteria may not have been disclosed to the Tenderer. By submitting a Submission, the Tenderer acknowledges the Owner's rights under this Section and absolutely waives any right or cause of action against the Owner and its

consultants, by reason of the Owner's failure to accept the Submission submitted by the Tenderer, whether such right or cause of action arises in contract, negligence, or otherwise.

2.4 TENDER VALIDITY PERIOD

The submitted tender shall remain valid for forty-five (45) days from the date of tender closing. In accordance with Item 1.13 of the Information for Tenderers, the extra lump sum to extend the period of validity shall be as follows:

- a. From 45 days to 60 days shall be \$ _____

The Owner may in its discretion take into account the extra lump sum tendered above when determine the lowest tender submission. If left blank, Nil will be entered.

2.5 CONTRACT BONDS

All Tenders must be accompanied by an Agreement to Bond, completed and executed by the Tenderer's Surety. The Agreement to Bond will provide for a Performance Bond for 100% of the Contract Price, and a Labour and Material Payment Bond for 100% of the Contract Price.

The Successful Tenderer shall, prior to execution of the Contract, provide to the Owner the following Bonds:

- a. a bond in the amount of 100% of the contract price (excluding H.S.T.) guaranteeing the full and faithful performance of the work, including maintenance of the works for the duration of warranty period and the obligation to indemnify and save harmless the Owner, and
- b. a bond in the amount of 100% of the contract price (excluding H.S.T.) guaranteeing payment for labour and materials.

2.6 CONSTRUCTION SCHEDULE

The successful Contractor acknowledges that time shall be deemed to be of the essence for this Contract. The contractor agrees to have all Works included in Schedule 2.1 above "Substantially Performed" by **June 27th, 2025**, based on contract award date of **October 11th, 2024**.

The successful Tenderer will be required to submit a Detailed Work Schedule and Projected Monthly Cash Flow Forecast within fourteen (14) days after contract award.

2.7 TENDER DEPOSIT

Every tender shall be accompanied by a certified cheque, bank draft, or bid bond made payable to the Owner in the amount of **ten percent (10%)** of the total bid price to serve as a tender deposit. Bid bonds submitted as a security shall be in accordance with the standards of the Canadian

Construction Association and shall be from the same guarantee surety company supplying the Performance and Labour and Material Bonds for this Contract.

2.8 TENDER ACCEPTANCE AND AWARD OF CONTRACT

The Tenderer agrees that:

- a. The Tender is subject to a formal contract being prepared and executed.
- b. If this Tender is accepted by the Owner, the required Contract Documents will be sent to the successful Tenderer following acceptance of the Tender. The Tenderer will execute the Agreement in triplicate and furnish in triplicate to the Owner the required Bonds, the Certificate of Liability Insurance, and a Workplace Safety & Insurance Board clearance letter stating that all assessments or compensation payable to the Workplace Safety & Insurance Board have been paid along with all other required documents within 7 (seven) calendar days from the date of receipt of the Contract Documents from the Owner.
- c. This offer is to continue open to acceptance until the Contract is executed by the successful Tenderer or before the expiry of the validity period, whichever event first occurs, and that the Owner may, at any time within that period accept this Tender whether any other Tender has been previously accepted or not.
- d. The Tenderer will forfeit the deposit accompanying this Tender if this Tender is withdrawn before the Contract is executed by the successful Tenderer or before the expiry of the validity period, whichever event first occurs.
- e. If so, requested in writing by the Owner, the undersigned will enter into a Contract with the Owner based upon the Tender but jointly in the names of the Tenderer and the Tenderer's parent company, if any. The Tenderer further agrees that any request by the Owner as indicated above is not and shall not be deemed to be a counter-offer by the Owner.
- f. The Owner may reject any or all tenders, waive minor informalities or minor irregularities and accept the tender which appears to be in the best interest of the Owner.
- g. If this Tender is accepted by the Owner, the Tenderer will carry out any additional or extra work (including the supplying of any additional materials or equipment pertaining thereto) or will delete any work as may be required by the Contract Administrator in accordance with the Contract.
- h. The carrying out of any work referred to in clause (g) above or the issuance by the Owner of a Contract Change Order relating to such work or the acceptance by the Tenderer of such Contract Change Order will not, except as expressly stated in such Contract Change Order, waive, or impair any of the terms of the Contract or any Contract Change Order previously issued by the Owner or any of the rights of the Owner under the Contract.
- i. The Owner reserves the right to remove any or all the items listed as provisional and reduce the Contract value by the stipulated amount for the provisional items. The value

of all other “non-provisional” items shall not be impacted by the deletion of provisional items.

- j. The Owner reserves the right to consider or not consider the value of any or all of the items listed as provisional in awarding the Contract.
- k. The Tenderer is not entitled to payment of the Contingency Allowance except for additional work carried out by the Tenderer in accordance with the Contract and only to the extent of such additional work, as authorized by the Owner or their agent in writing.

2.9 WORKPLACE SAFETY AND INSURANCE BOARD

The successful Tenderer must:

- a. Submit their Workplace Safety Insurance Board (WSIB) number and CAD-7 rating of the applicable province in which the employer resides.
- b. Furnish a Workplace Safety and Insurance Board Clearance Certificate indicating that such contractor or sub-contractor is in good standing before starting to perform services pursuant to this Agreement. Such Certificate must be renewed every sixty (60) days, for as long as the Agreement is in effect, and a copy shall be promptly provided to the Owner.

This Tender is submitted by:

Tenderer's Business Name: _____

Tenderer Signature: _____

Tenderer's Signature
I/We are authorized to bind the Company/Corporation

Print Name

Witness Signature: _____

Witness Signature

Print Name

Dated at _____ this _____ day of _____, 20_____.

Note: If the Tender is submitted by or on behalf of a corporation, it must be signed in the name of such corporation by the duly authorized officers or agent thereof who shall also subscribe their own name and office. The seal of the Corporation shall also be affixed.

If the Tender is submitted by or on behalf of an individual or partnership, a seal must be affixed opposite the signature of the individual or each partner and each signature shall be witnessed.

2.10 STATEMENT “A” – TENDERER’S EXPERIENCE

All Contractors must complete Statements A, B and C – failure to complete and submit these three Statements may result in the rejection of their bid submissions.

Complete the following table providing a minimum of three (3) projects similar in type and scope to this project, which have been successfully completed by the Tenderer and that demonstrate the Tenderer’s past relevant experience and success in completing projects of similar scope and magnitude. The Owner reserves the right to verify all information provided. (Additional text on separate sheets may be attached provided the information is directly relevant to and/or qualify the contents of the Statements.)

WORK EXPERIENCE - PROJECT 1	
Project Name	
Owner or Municipality	
Contact name/Telephone No.	
Date Work was Completed	
Location of project	
Approximate Value	
Description of work Must indicate if the work included elements that are pertinent to this project.	

WORK EXPERIENCE - PROJECT 2	
Project Name	
Owner or Municipality	
Contact name/Telephone No.	
Date Work was Completed	
Location of project	
Approximate Value	
Description of work Must indicate if the work included elements that are pertinent to this project.	

WORK EXPERIENCE - PROJECT 3	
Project Name	
Owner or Municipality	
Contact name/Telephone No.	
Date Work was Completed	
Location of project	
Approximate Value	
Description of work Must indicate if the work included elements that are pertinent to this project.	

2.12 STATEMENT “C” – LIST OF SUB-CONTRACTORS

All Contractors must complete Statements A, B and C – failure to complete and submit these three Statements may result in the rejection of their bid submissions.

The Contractor shall identify in the table below the Sub-Contractor(s) to be employed in this contract for each sub-trade. Where the Contractor proposes to complete the work specified, the contractor must indicate “By Own Forces” in the space provided. Failure to fully disclose all information requested may result in rejection of the Contractor’s bid. Where the Contractor indicates work “By Owner Forces”; the Contractor cannot substitute a Sub-Contractor after the tender has been received.

SUB-TRADE	PROPOSED SUBCONTRACTOR

Add sub-trades as required.

SECTION 3
CONTRACT AGREEMENT

SECTION 3 - CONTRACT AGREEMENT

This agreement, made in triplicate this _____ day of _____ in _____.

BETWEEN:

The Town of Prescott
(hereinafter called the "Owner")

- and -

(hereinafter called the "Contractor")

WITNESSETH

That the Owner and Contractor in consideration of the fulfillment of their respective promise and obligations herein set forth covenant and agree with each other as follows:

ARTICLE 1

- a. A general but not necessarily complete description of the work is as follows: Provide all labour, materials and equipment to construct two soccer fields, tennis/pickleball courts, children's play area, skate pad, multi-use court, asphalt pathway and all related items and appurtenances.
- b. The Contractor shall, for the prices set out in the Form of Tender and except as otherwise specifically provided, provide at no additional cost to the Owner all and every kind of labour, machinery, plant, structures, roads, ways, materials, appliances, articles and things necessary for the due execution and completion of all the work set out in this Contract and shall forthwith according to the instructions of the Engineer, commence the works and diligently execute the respective portions thereof, and deliver the works complete in every particular to the Owner within the time specified in the Contract.

ARTICLE 2

In the event that the Form of Tender provides for and contains a Contingency Allowance, it is understood and agreed that such Contingency Allowance is merely for the convenience of accounting by the Owner, and the Contractor is not entitled to payment thereof except of extra or additional work carried out by him as directed by the Contract Administrator and in accordance with the Contract and only to the extent of such extra or additional work.

ARTICLE 3

In case of any inconsistency or conflict between the provisions of this Agreement and the Plans or Specifications or General Conditions or Form of Tender or any other document or writing, the provisions of such documents shall take precedence and govern in the following order, namely:

Where any such notice, direction or other communication is given or made to the Contract Administrator, a copy thereof shall likewise be delivered to any agent of the Contract administrator appointed in accordance with the General Conditions of this Contract and where any such notice, direction or other communication is given or made to such agent a copy thereof shall likewise be delivered to the Contract Administrator.

ARTICLE 7

A copy of each of the Specifications, General Conditions, Special Provisions, Form of Tender, Information for Tenderers is/are hereto annexed and together with the Drawings relating thereto and listed in the Specifications are made part of this Contract as fully to all intents and purposes as though recited in full herein.

ARTICLE 8

No implied contract of any kind whatsoever by or on behalf of the Owner shall arise or be implied by or inferred from anything in this Contract contained, nor from any position or situation of the parties at any time, it being clearly understood that the express covenants and agreements herein contained made by the Owner shall be the only covenants and agreements upon which any rights against the Owner may be founded.

ARTICLE 9

Time shall be deemed the essence of this Contract.

ARTICLE 10

The Contractor declares that in tendering for the works and in entering into this Contract he has either investigated for himself the character of the work and all local conditions that might affect his tender or his acceptance or performance of the work, or that not having so investigated, he acknowledges that his responsibility under the Contract is in no way reduced or limited thereby and, in either case, he is willing to assume and does hereby assume all risk of conditions arising, developing, or being revealed in the course of the work which might or could make the work, or any items thereof, more expensive in character, or more onerous to fulfill, than was contemplated or known when the tender was made or the Contract signed. The Contractor also declares that he did not and does not rely upon information furnished by any methods whatsoever by the Owner or its officers, employees or agents, being aware that any information from such sources was and is approximate and speculative only and was not in any manner warranted or guaranteed by the Owner.

ARTICLE 11

The Contract shall apply to and be binding on the parties hereto and their successors, administrators, executors and assigns and each of them.

IN WITNESS THEREOF the parties hereto have hereunto set their hands and seals the day and year first above written or caused their corporate seals to be affixed, attested by the signature of their proper officers, as the case may be.

		Owner:
		Per: _____
		Per: _____
_____	}	
*Witness as to Signature of Contractor		(Seal)
Address _____		Contractor:
_____		Per: _____
_____		Per: _____
Occupation _____		(Seal)

*Not necessary if corporate seal is affixed.

SECTION 4
SUPPLEMENTAL GENERAL CONDITIONS
GENERAL CONDITIONS

SECTION 4 - SUPPLEMENTAL GENERAL CONDITIONS

Insert the following sections to the General Conditions:

GC 1.04 Definitions (Add)

Contemplated Change Notice (CCN) – means a request for a price quotation only. This is not an instruction to proceed with the change to the original contract documents or a change to the contract schedule.

Request for Information (RFI) – means a request for information seeks the clarification of plans, drawings, specifications, and agreements. The Construction RFI is a formal written process in which parties, such as, the Contractor and designer clarify information gaps on construction documents.

Site Instruction (SI) – is a request, order, or command from the Owner to the Contractor that contains directives to the Contractor.

Certificate of Completion – a contract shall be deemed to be completed and services or materials shall be deemed to be last supplied to the improvement when the price of completion, correction of a known defect or last supply is not more than the lesser of,

- (a) 1 per cent of the contract price; and
- (b) \$5,000. R.S.O. 1990, c. C.30, s. 2(3); 2017, c. 24, s. 4(5,6).

GC 8.02.03.13 Maintenance Security (Add)

.01 As referenced in 8.02.04.05.02 (d), the contract shall provide to the Owner for the duration of the Warranty Period, a Maintenance Security, the value of which shall be derived from the following table:

CONTRACT PRICE		VALUE OF MAINTENANCE SECURITY (\$)
FROM (\$)	TO (\$)	
Less than 0.1M		4% of Final Contract Price
0.1M	< 0.5M	4,000 on first 0.1M + 3.0% on next 0.4M
0.5M	< 1.0M	16,000 on first 0.5M + 2.4% on next 0.5M
1.0M	<2.0M	28,000 on first 1.0M + 2.2% on next 1.0M
2.0M	<4.0M	50,000 on first 2.0M + 2.0% on next 2.0M
4.0M	<6.0M	90,000 on first 4.0M + 1.8% on next 2.0M
6.0M	10.0M	126,000 on first 6.0M + 1.5% on next 4.M
Greater than 10.0M		186,000 on first 10.0M + 1.0% on balance

The maintenance security, which is at no time a part of the statutory holdback, shall be retained by the Owner in increments from monies that would otherwise be payable to the Contractor, commencing during the latter part of the period of construction, so that by the

date of substantial performance of the contract the full value of the required maintenance security has been retained.

Except as otherwise provided hereunder, the maintenance security, less any deductions made therefrom as provided for in the Contract, shall be paid to the Contractor following the issuance by the Contract Administrator of the Final Acceptance Certificate at the end of the Warranty Period.

The Contractor may apply in writing to the Contract Administrator at the time of substantial performance to substitute for the monies retained as the maintenance security an alternative maintenance security of equivalent or greater value comprising:

- (a) one or more irrevocable letters of credit or
- (b) Another readily negotiable security.

Acceptance of any such alternative shall be at the discretion of the Contract Administrator and the Solicitor for the Owner.

Following receipt and acceptance of any such alternative, the Contract Administrator shall release to the Contractor the monies previously retained for maintenance security purposes.

The Contract Administrator may, in their discretion, allow the total maintenance security to be made up in part of monies retained under the Contract and in part of an alternative maintenance security as indicated in (a) and (b) above provided that the total value of such parts, as determined by the Contract Administrator, shall be not less than the required value as derived from the table set out above.

Such alternative maintenance security or the monies derived therefrom, less any deductions made as provided for in the Contract, shall be released to the Contractor following the issuance by the Contract Administrator of the Final Acceptance Certificate at the end of the period of maintenance.

Where the Contract Administrator proposes to release the statutory holdback to a Subcontractor through the Contractor as provided for herein, the Contract Administrator shall arrange for "the required maintenance security in respect of the said Subcontract", to be provided by a retention from monies that would otherwise be payable to the Contractor. The value of the required maintenance security shall be determined by applying to the value of the Subcontract work the same effective percentage retention, derived from the foregoing table, as applies to the Contract as a whole.

The Contractor may apply in writing to the Contract Administrator to substitute for the maintenance security referred to in the preceding paragraph an irrevocable letter of credit in the name of the Contractor.

Following the substantial performance of the Contract, the Contract Administrator may require the Contractor to consolidate all letters of credit provided pursuant to the foregoing into one or two letters of credit covering the Contract as a whole.

The Contractor shall allow his Subcontractors to provide letters of credit to the Contractor in conformity with the foregoing procedures. The Contractor shall provide the Contract Administrator with copies of any or all such letters of credit on request.

GC 8.02.04.04 Certificate of Substantial Performance (Amended)

- .01 Upon submission and acceptance of all maintenance and operation manuals, record drawings, warranties, certificates of approvals from the various authorities and commissioning authorities and 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.

GC 8.02.04.01.05 Document Holdback (Add)

- .01 In addition to any other holdback either by statute, agreed to by the Owner and Contractor, or required by the Contractor, the Owner will retain a holdback in the amount of one percent of the contract price which will be released to the Contractor only after the Contractor has provided a complete set of as-built drawings and complete maintenance and operational documentation to the satisfaction of the Contract Administrator.
- .02 The documentation holdback will be retained by the owner at the time Contract Administrator certifies the seventy percent (70%) of the work has been performed.



OPSS MUNI GENERAL CONDITIONS OF CONTRACT

Table of Contents

SECTION GC 1.0 - INTERPRETATION

GC 1.01	Captions	7
GC 1.02	Abbreviations	7
GC 1.03	Gender and Singular References	7
GC 1.04	Definitions	8
GC 1.05	Ontario Traffic Manual	13
GC 1.06	Final Acceptance.....	13
GC 1.07	Interpretation of Certain Words.....	13

SECTION GC 2.0 - CONTRACT DOCUMENTS

GC 2.01	Reliance on Contract Documents	14
GC 2.02	Order of Precedence.....	14

SECTION GC 3.0 - ADMINISTRATION OF THE CONTRACT

GC 3.01	Contract Administrator's Authority	16
GC 3.02	Working Drawings	17
GC 3.03	Right of the Contract Administrator to Modify Methods and Equipment.....	18
GC 3.04	Emergency Situations	18
GC 3.05	Layout Information	18
GC 3.06	Extension of Contract Time.....	18
GC 3.07	Delays	19
GC 3.08	Assignment of Contract.....	20
GC 3.09	Subcontracting by the Contractor	20
GC 3.10	Changes.....	20

GC 3.10.01	Changes in the Work	20
GC 3.10.02	Extra Work	21
GC 3.10.03	Additional Work	21
GC 3.11	Notices	21
GC 3.12	Use and Occupancy of the Work Prior to Substantial Performance.....	22
GC 3.13	Claims, Negotiations, Mediation	22
GC 3.13.01	Continuance of the Work	22
GC 3.13.02	Record Keeping	22
GC 3.13.03	Claims Procedure.....	22
GC 3.13.04	Negotiations	23
GC 3.13.05	Mediation.....	23
GC 3.13.06	Payment	23
GC 3.13.07	Rights of Both Parties	24
GC 3.14	Arbitration.....	24
GC 3.14.01	Conditions for Arbitration	24
GC 3.14.02	Arbitration Procedure	24
GC 3.14.03	Appointment of Arbitrator	24
GC 3.14.04	Costs	25
GC 3.14.05	The Decision	25
GC 3.15	Archaeological Finds.....	25

SECTION GC 4.0 - OWNER'S RESPONSIBILITIES AND RIGHTS

GC 4.01	Working Area	26
GC 4.02	Approvals and Permits.....	26
GC 4.03	Management and Disposition of Materials.....	26
GC 4.04	Construction Affecting Railway Property	27
GC 4.05	Default by the Contractor	27
GC 4.06	Contractor's Right to Correct a Default.....	27
GC 4.07	Owner's Right to Correct a Default	28

GC 4.08	Termination of Contractor's Right to Continue the Work	28
GC 4.09	Final Payment to Contractor	29
GC 4.10	Termination of the Contract	29
GC 4.11	Continuation of Contractor's Obligations	29
GC 4.12	Use of Performance Bond.....	29
GC 4.13	Payment Adjustment.....	29

SECTION GC 5.0 - MATERIAL

GC 5.01	Supply of Material	30
GC 5.02	Quality of Material	30
GC 5.03	Rejected Material	30
GC 5.04	Substitutions.....	31
GC 5.05	Owner Supplied Material.....	31
GC 5.05.01	Ordering of Excess Material.....	31
GC 5.05.02	Care of Material.....	31

SECTION GC 6.0 - INSURANCE, PROTECTION AND DAMAGE

GC 6.01	Protection of Work, Persons, and Property	33
GC 6.02	Indemnification	33
GC 6.03	Contractor's Insurance	34
GC 6.03.01	General	34
GC 6.03.02	Commercial General Liability Insurance	34
GC 6.03.03	Automobile Liability Insurance	35
GC 6.03.04	Aircraft and Watercraft Liability Insurance	35
GC 6.03.04.01	Aircraft Liability Insurance	35
GC 6.03.04.02	Watercraft Liability Insurance.....	35
GC 6.03.05	Property and Boiler Insurance	35
GC 6.03.05.01	Property Insurance.....	35
GC 6.03.05.02	Boiler Insurance	35
GC 6.03.05.03	Use and Occupancy of the Work Prior to Completion	36
GC 6.03.05.04	Payment for Loss or Damage	36
GC 6.03.06	Contractor's Equipment Insurance.....	36

GC 6.03.07	Insurance Requirements and Duration	37
GC 6.04	Bonding	37
GC 6.05	Workplace Safety and Insurance Board	37

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

GC 7.01	General	38
GC 7.01.01	Site Visit.....	38
GC 7.01.02	Commencement of Work.....	38
GC 7.01.03	Control and Responsibility.....	38
GC 7.01.04	Compliance with the Occupational Health and safety Act.....	38
GC 7.01.05	Contractor's Representatives.....	39
GC 7.01.06	Assistance to the Contract Administrator.....	40
GC 7.01.07	Schedule.....	40
GC 7.01.08	Errors and Inconsistencies as Relating to the Contract.....	40
GC 7.01.09	Utilities.....	40
GC 7.02	Monuments and Layout	41
GC 7.03	Working Area	42
GC 7.04	Damage by Vehicles or Other Equipment	42
GC 7.05	Excess Loading of Motor Vehicles.....	42
GC 7.06	Maintaining Roadways and Detours	42
GC 7.07	Access to Properties Adjoining the Work and Interruption of Utility Services	43
GC 7.08	Approvals and Permits.....	44
GC 7.09	Suspension of Work.....	44
GC 7.10	Contractor's Right to Stop the Work or Terminate the Contract	44
GC 7.11	Notices by the Contractor	45
GC 7.12	Environmental Incident Management.....	45
GC 7.13	Obstructions	46
GC 7.14	Limitations of Operations	46

GC 7.15	Cleaning Up Before Acceptance	46
GC 7.16	Warranty.....	46
GC 7.17	Contractor's Workers	47
GC 7.18	Drainage.....	47

SECTION GC 8.0 - MEASUREMENT AND PAYMENT

GC 8.01	Measurement	48
GC 8.01.01	Quantities	48
GC 8.01.02	Variations in Tender Quantities.....	48
GC 8.02	Payment.....	49
GC 8.02.01	Non-Resident Contractor.....	49
GC 8.02.02	Price for Work	49
GC 8.02.03	Advance Payments for Material	49
GC 8.02.04	Certification and Payment.....	50
GC 8.02.04.01	Progress Payment	50
GC 8.02.04.02	Certification of Subcontract Completion	50
GC 8.02.04.03	Subcontract Statutory Holdback Release Certificate and Payment	51
GC 8.02.04.04	Certification of Substantial Performance	51
GC 8.02.04.05	Substantial Performance Payment and Substantial Performance Statutory Holdback Release Payment Certificates	52
GC 8.02.04.06	Certification of Completion.....	52
GC 8.02.04.07	Completion Payment and Completion Statutory Holdback Release Payment Certificates	52
GC 8.02.04.08	Interest	53
GC 8.02.04.09	Interest for Late Payment.....	53
GC 8.02.04.10	Interest for Negotiations and Claims.....	53
GC 8.02.04.11	Owner's Set-Off.....	54
GC 8.02.04.12	Delay in Payment.....	54
GC 8.02.05	Payment on a Time and Material Basis	54
GC 8.02.05.01	Definitions	54
GC 8.02.05.02	Daily Work Records	55
GC 8.02.05.03	Payment for Work	55
GC 8.02.05.04	Payment for Labour	55
GC 8.02.05.05	Payment for Material.....	56
GC 8.02.05.06	Payment for Equipment	56
GC 8.02.05.06.01	Working Time.....	56
GC 8.02.05.06.02	Standby Time.....	56
GC 8.02.05.07	Payment for Hand Tools	57
GC 8.02.05.08	Payment for Work by Subcontractors	57
GC 8.02.05.09	Submission of Invoices	57
GC 8.02.05.10	Payment Other Than on a Time and Material Basis.....	57
GC 8.02.05.11	Payment Inclusions.....	58
GC 8.02.06	Final Acceptance Certificate	58

GC 8.02.07 Records 58

GC 8.02.08 Taxes 58

GC 8.02.09 Liquidated Damages 59

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.

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 Occupational Health and Safety Act
"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 in accordance with 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 in accordance with 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 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 descending 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.
- .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 in accordance with the Contract Documents .
- .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 in accordance with 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 in accordance with an agreed upon schedule, or otherwise, with reasonable promptness so as not to cause delay.
- .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 background 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, subsection GC 3.07.
 - b) Changes in the Work, clause GC 3.10.01.
 - c) Extra Work, clause GC 3.10.02.
 - d) Additional Work, clause GC 3.10.03.
- .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;
 - 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 be reimbursed by the Owner for reasonable costs incurred by the Contractor as the result of such delay, provided that in the case of an application for an extension of Contract Time due to Abnormal Weather, the Contractor shall, with the Contractor's application, submit evidence from Environment Canada in support of such application. Extension of Contract Time may be granted in accordance with subsection GC 3.06, Extension of Contract Time.
- .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 in accordance with 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 in accordance with 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, in accordance with 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 in accordance 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 in accordance with 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 in accordance with 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 in accordance with 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 in accordance with 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 in accordance with 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 in accordance with clause GC 8.02.05, Payment on a Time and Material Basis, the parties shall proceed in accordance with 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 his or her jurisdiction or have otherwise disqualified him or herself:
 - 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 him or her.
- .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 his or her 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 in accordance with 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, in accordance with 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 in accordance with clause GC 3.07.01.
- .03 Any Work directed or authorized in connection with an archaeological find shall be considered as Extra Work in accordance with 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 In accordance with 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 in accordance with 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 OHSA 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 OHSA.

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 in accordance with 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 in accordance with 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;
 - d) 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 in accordance with 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 in accordance with 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 in accordance with 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 five million dollars 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 five million dollars 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 five million dollars inclusive per occurrence for bodily injury, death, and damage to property including loss of use thereof, and limits of not less than five million dollars 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 five million dollars 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 in accordance with 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 in accordance with 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 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 of an officer of the insurer.
- .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 in accordance with 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) its 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) its 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 The Contractor, when requested, 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 or "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 Contract 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 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, 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 in accordance with 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 in accordance with 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 in accordance with 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 in accordance with 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 in accordance with 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 in accordance with 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 man-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 in accordance with 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 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. 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. 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.
 - 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 in its performance. 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 Portland cement concrete shall be assessed at the rate of 25% of the Contract price for each aggregate stockpiled.
 - ii. Commercial Sources
 - 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 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 in accordance with 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 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 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 in accordance with 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 Rates.

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 Rates with a cost adjustment as follows:
 - a) Cost \$12,000 or less - no adjustment;
 - b) Cost greater than \$12,000 but not exceeding \$24,000 - payment \$12,000 plus 90% of the portion in excess of \$12,000; and
 - c) Cost greater than \$24,000 - \$22,800 plus 80% of the portion in excess of \$24,000.
- .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, in accordance with 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 is assigned or sublet to an associate, as defined by the Securities Act, no markup whatsoever shall be applied.

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 in accordance with 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, including all cost of general supervision, administration, and management time spent on the Work, and no other payment or allowance shall be made in respect of such Work.

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 in accordance with the Contract, the Contractor shall pay such amounts as are specified in the Contract Documents.

SECTION 5
SPECIAL PROVISIONS

PART 1 **GENERAL**

1.1 **GENERAL DESCRIPTION**

- .1 This section provides a detailed description of the work to be included in the provisional items on pages FT-4 and FT-5 of the form of tender.

PART 2 **PROVISIONAL ITEMS**

2.1 **ITEM NO. P1 – BALL STOP FENCING**

- .1 Include in this provisional lump sum item all costs associated with constructing the 4 sections of ball stop fencing located on the north and south sides of both the east and west soccer fields as detailed on drawing L-1.

2.2 **ITEM NO. P2 – REPLACE SKATE PAD CONCRETE BASE WITH ASPHALT**

- .1 Include in this provisional lump sum item the cost to delete the vehicular & pedestrian concrete paving for the skate pad (i.e delete 200mm concrete pad and 350mm granular base as shown on detail 1/D-1) and replace it with asphalt construction in accordance with the multi-use court typical construction (i.e. 40mm HL-3A,50mm HL-8, 150mm granular A, 350mm granular B, Terrafix TBX-1500 Geogrid, and Terrafix 600R geotextile as shown on 4/D-1).

PART 3 **EXECUTION – N/A**

END OF SECTION

PART 1 - GENERAL

1.1 General Requirements

- .1 The General Requirements, Bid Form, Instructions to Bidders, Bid Policies, Special Provisions, The Agreement and the Contract Drawings shall form part of this specification in the same manner as if they were recited in full herewith.
- .2 Refer to other Specifications in these Documents to determine their effect upon the work of this section.

1.2 Scope

- .1 Provide labour, products, equipment, services, tools, and supervision necessary for submittals. Make submittals specified in this Section to the Client Representative unless otherwise specified.
 1. Verify accuracy and completeness of submittals prior to submission.
 2. Verify field measurements, field construction criteria, catalogue numbers and similar data.
 3. Co-ordinate each submittal with requirements of the Work and the Contract Documents.
 4. Notify Client Representative in writing at the time of submission, of any deviation in submittals from requirements of the Contract Documents.
- .2 Submissions to occur in accordance with the schedule established at the Pre-construction Meeting and to provide adequate time for reviews, securing necessary approvals, possible revisions, and resubmittals, placing orders, securing delivery and to avoid construction delays.
- .3 Accompany each submittal with a letter of transmittal in duplicate containing all pertinent information required for identification and checking of submittals including but not limited to the following:
 1. Date of initial submission and date of each subsequent submission if required,
 2. Project title and Client Representative's project number.
 3. Names of:
 - .1 Contractor
 - .2 Subcontractor

- .3 Supplier/manufacturer as applicable
- 4. Specification section numbers to which submission is related.
- 5. Countersigned stamp of Contractor certifying that they have reviewed the submission.
- .4 Client Representative's Review:
 - 1. Allow 10 business days for the Client Representative's review of all submissions.
- .5 When submittals are resubmitted, transmit under a new letter of transmission.
- .6 Do not carry out Work until Client Representative's review of submissions has been completed.
- .7 Be responsible for payment of charges for delivery of submissions and resubmission to Client Representative.

1.3 Product Data

- .1 Before delivery of Products to the Site, submit Product data as specified in each section or as requested by the Client Representative.
- .2 Submit manufacturer's product data for systems, materials, and methods of installation proposed for use. Such literature shall identify systems, each component, and shall certify compliance of each component with applicable standards.

1.4 Samples

- .1 Before delivery of Products to the Site, submit samples of Products as specified or as requested by the Client Representative. Label samples as to origin and intended use in the Work and in accordance with the requirements of the Specification Sections. Samples must represent physical examples to illustrate materials, equipment, or work quality and to establish standards by which completed Work is judged.
- .2 Ensure samples are of sufficient size and quantity, if not already specified, to illustrate:

1. The quality and functional characteristics of Products, with integrally related parts and attached devices.
2. Full range of colours available.
- .3 Notify the Client Representative in writing, at time of submission, of any deviations in samples from requirements of the Contract Documents and state the reasons for such deviations.
- .4 Identify samples with project name, contract number, date, Contractor's name, number, and description.
- .5 If samples are not acceptable, both samples will be returned. If samples are acceptable, one sample will be so indicated and returned. Be responsible for the cost of samples that are not accepted and for resubmission of samples.
- .6 Acceptable samples shall serve as a model against which the products incorporated in the work shall be judged.
- .7 Each Product incorporated in the Work shall be precisely the same in all details as the acceptable sample.
- .8 Should there be any change to the accepted sample, submit in writing for approval of the revised characteristics and resubmit samples of the Product for approval if requested.
- .9 When samples are very large, require assembly, or require evaluation at the Site, they may be delivered to the Site, but only with approval and as directed.

1.5 Shop Drawings

- .1 Arrange for the preparation of shop drawings as called for in the Contract Documents or as may be reasonably requested by the Client Representative. The Contractor and each Subcontractor shall operate as experts in their respective fields and all shop drawings and samples shall conform to the requirements of the Contract Documents.
- .2 The term "shop drawings" means drawings, diagrams, schematics, illustrations, schedules, performance charts, brochures and other data which are required to illustrate details of the Work.
- .3 In addition to shop drawings specified in the specification sections, submit shop drawings required by jurisdictional authorities in accordance with their requirements.
- .4 Shop drawings shall indicate the following minimum criteria and any additional criteria indicated in the individual specification sections requiring shop drawings:

1. Clear and obvious notes of any proposed changes from the Contract Documents.
 2. Fabrication and erection dimension.
 3. Provisions for allowable construction tolerances and deflections provided for live loading.
 4. Details to indicate construction arrangements of the parts and their connections, and interconnections with other work.
 5. Location and type of anchors and exposed fastenings.
 6. Materials, physical dimensions including thickness and finishes.
 7. Descriptive names of equipment.
 8. Mechanical and electrical characteristics when applicable.
 9. Information to verify that superimposed loads will not affect function, appearance, and safety of the work detailed as well as of interconnection work.
 10. Assumed design loadings, and dimensions and material specifications for load-bearing members.
- .5 Include in shop drawing submissions detailed information, templates, and installation instructions required for incorporation and connection of the Work.
- .6 Before submitting to the Client Representative, review all shop drawings to verify that the Products illustrated therein conform to the Contract Documents. By this review, the Contractor agrees that it has determined and verified all field dimensions, field construction criteria, materials, catalogue numbers and similar data that it has checked and coordinated each shop drawing with the requirements of the Work and of the Contract Documents. The Contractor's review of each shop drawing shall be indicated by stamp, date and signature of a qualified and responsible person possessing the appropriate authorization.
- .7 Be responsible for dimensions to be confirmed and correlated at the Site, for information that pertains solely to fabrication processes or to techniques of construction and installation and for coordination of the Work of all subtrades.
- .8 Submit shop drawings for the Client Representative's review with reasonable promptness and in orderly sequence to cause no delay in the Work or in the work of Other Contractors. At the time of submission, notify the Client Representative in writing of any

deviations in the shop drawings from the requirements of the Contract Documents. The Contractor will be held responsible for changes made from the Contract Documents which are not indicated or otherwise communicated in writing with the submission.

- .9 Material substitutions indicated on shop drawings will not be accepted. All substitutions to be submitted in accordance with substitution requirements outlined in this Contract.
- .10 Drawings submitted by the Contractor as required herein are the property of the Owner who may use and duplicate such drawings where required in association with the Work.
- .11 Submit shop drawings signed and sealed by a licensed Professional Engineer registered in the place of the Work where indicated in the individual sections.
- .12 Shop drawings shall have distinct, uniform letters, numerals and line thicknesses that will ensure the production of clear legible prints and also facilitate reduced reproduction.
- .13 Submissions shall be in both full-size hard copy and electronic Portable Document Format (PDF) format delivered via electronic means to the Client Representative in accordance with Client Representative's direction.
- .14 Shop drawings shall contain the following identification:
 1. Project name and Contract number
 2. Applicable Contract Specification number describing the item.
 3. Location
 4. Name of equipment or Product.
 5. Name of Subcontractor or supplier.
 6. Signature of Contractor certifying that Shop drawing is in conformance with Contract Documents.
 7. On submissions after the first, the following additional identification:
 - .1 The revision number
 - .2 Identification of the item(s) revised

- .15 Dimensions and designations of elements shall be shown in the same system of measurement used on the applicable Contract Drawings.
- .16 The Client Representative reserves the right to refuse acceptance of drawing submissions not meeting the above requirements.
- .17 The Client Representative's review will be 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 shop drawings or of responsibility for meeting all requirements of the Contract Documents unless a deviation on the shop drawings has been approved in writing by the Client Representative. Review does not mean that the Client Representative approves detail inherent in shop drawings, responsibility which shall remain with Contractor submitting same.
- .18 The Contractor shall make any changes in shop drawings which the Client Representative may require consistent with the Contract Documents and re-submit unless otherwise directed by the Client Representative. When resubmitting the shop drawings, the Contractor shall notify the Client Representative in writing of any revisions other than those requested by the Client Representative.
- .19 Only drawings noted for revision and resubmission need be resubmitted.
- .20 File one (1) copy of each submitted shop drawing at the Site.

1.6 Certificates

- .1 Submit certificates that are required by authorities having jurisdiction or that are requested in the specification sections.
- .2 Clearly show on each certification the name and location of the Work, name and address of Contractor, quantity and date of shipment and delivery and name of certifying company.
- .3 Certificates shall verify that Products and/or methods meet the specified requirements and shall include test reports of acceptable testing laboratories to validate certificates.
- .4 Submit certificates in duplicate and signed by an authorized representative of the certifying company.

1.7 Certification of Tradesmen

- .1 Provide certificates, at the request of the Client Representative, to establish qualifications of personnel employed on the Work where such certification is required by authorities having jurisdiction, by the Client Representative or by the Contract Documents.

1.8 Warranties

- .1 Submit extended warranties as requested in sections of the Specifications showing title and address of Contract, warranty commencement date and duration of the warranty.
- .2 Extended warranties shall commence on termination of the standard warranty specified in the conditions of the contract and shall be an extension of these provisions. Clearly indicate what is being warranted and what remedial action is to be taken under the warranty. Ensure warranty bears the signature and seal of the Contractor.
- .3 Submit each extended warranty on a form that is acceptable to the Client Representative.

1.9 Inspection and Test Reports

- .1 Submit inspection and test reports as specified in the Sections of the specifications for "Source Quality Control" and "Field Quality Control" within three (3) working days of inspection or testing. If immediate action is required by the Contractor inform the Client Representative immediately and submit inspection and testing report within one (1) working day.
- .2 Submit three (3) copies of reports submitted with certificates of compliance indicating but not limited to the following:
 1. Project name and number.
 2. Date of inspection or test and date report is issued.
 3. Name and address of inspection and testing company.
 4. Name and signature of inspector or tester.
 5. Identification of Product and Specification Section covering inspected or tested work.
 6. Specified requirements for which the inspection or testing was performed and results of inspections or tests.
 7. Location of inspection or form which tested material was derived.
 8. Overview of inspection and testing methods and procedures.
 9. Remarks and observations on compliance with Contract Documents.
- .3 Inspection and test reports shall be signed by a responsible officer of the inspection and testing company.

1.10 Progress Photographs

- .1 Concurrently with monthly application for payment submit digital zip file of digital pictures illustrating the progress of the Work as follows:
 1. A minimum of 20 pictures that best illustrate the progress on site and / or for customization fabrication
 2. Pictures shall be in focus and properly illuminated; view shall be unobstructed.
 3. Pictures shall be taken with a minimum 5-megapixel camera or better such that quality and details can be discerned from photo.
 4. The pictures shall either have an accurate date-stamp present in the photo or be numbered and dated in the digital filename.
 5. The zip file containing the photos shall be labelled with the following information: The project name, the period the pictures are taken in, the monthly application number which the pictures are associated with.

1.11 Progress Reports

- .1 Prepare a monthly progress report current to the last Friday of each month. The report shall indicate the period covered and include but not be limited to the following:
 1. Executive Summary
 2. Health and Safety update
 3. Areas of concern/action required
 4. Work accomplished this period
 5. Work planned next period
 6. Schedule status
 7. Budget status
 8. Status of submittals
 9. Quality control
 10. Contract changes
 11. Outstanding actions.
- .2 Submit the monthly progress report such that it is received by the Client Representative no later than the Wednesday following the last Friday of the month.

1.12 Operations and Maintenance Manuals

- .1 Hand over to the Client Representative two (2) copies of a comprehensive operations and maintenance manual and material suitable for the Owner's maintenance employees. Manuals shall cover all products supplied and installed under the Contract.
- .2 Submit draft of the operation and maintenance manuals for the Client Representative's review at least fifteen (15) days before testing systems and equipment. Incorporate alterations and additions, as found to be necessary during testing, and prepare the final version of the manual from the corrected draft.
- .3 Submit final version of operation and maintenance manuals prior to Contract completion.
- .4 Testing of systems and equipment will not be deemed to be complete until the requested number of copies of the final version of the manuals has been handed over to the Client Representative.
- .5 If standard literature is incorporated into the operations and maintenance manual, any irrelevant information shall be deleted or suitably noted.
- .6 The manuals shall have sufficient detail in order that the Owner can totally maintain the equipment without outside help.
- .7 Submit all material in English.

END OF SECTION

PART 1 - GENERAL

1.1 General Requirements

- .1 The General Requirements, Bid Form, Instructions to Bidders, Bid Policies, Special Provisions, The Agreement and the Contract Drawings shall form part of this specification in the same manner as if they were recited in full herewith.
- .2 Refer to other Specifications in these Documents to determine their effect upon the work of this section.

1.2 References

- .1 Ontario Traffic Control Book 7.

1.3 Protection of Public Traffic

- .1 Comply with requirements of Acts, Regulations and By-laws in force for regulation of traffic or use of roadways upon or over which it is necessary to carry out Work or haul materials or equipment.
- .2 When working on travelled way:
 1. Place equipment in position to present minimum of interference and hazard to travelling public.
 2. Keep equipment units as close together as working conditions permit and preferably on same side of travelled way.
 3. Do not leave equipment on travelled way overnight.
- .3 Do not close any lanes of road or sidewalk without permits and approval of the City and/or Region. Before re-routing traffic erect suitable signs and devices in accordance with the Ontario Traffic Control Book 7.
- .4 Keep travelled way graded, free of potholes and of sufficient width for required number of lanes of traffic.
 1. Provide minimum 7m wide temporary roadway for traffic in two-way sections through Work and on detours.
 2. Provide minimum 5 m wide temporary roadway for traffic in one-way sections through Work and on detours.
- .5 As directed by the City and/or Region, provide gravelled detours or temporary roads to facilitate passage of traffic around restricted construction area.
- .6 Provide and maintain road access and egress to property fronting along Work under Contract and in other areas as indicated, unless other means of road access exist that meet approval of the City and/or Region.

1.4 Informational and Warning Devices

- .1 Provide and maintain signs, and other devices required to indicate construction activities or other temporary and unusual conditions resulting from Project Work which requires road user response.
- .2 Supply and erect signs, delineators, barricades, and miscellaneous warning devices as specified in Ontario Traffic Control Book 7.
- .3 Meet with the City and/or Region prior to commencement of Work to prepare list of signs and other devices required for project. If situation on site changes, revise list to approval of the City and/or Region.
- .4 Continually maintain traffic control devices in use by:
 1. Checking signs daily for legibility, damage, suitability, and location. Clean, repair or replace to ensure clarity and reflectance.
 2. Removing or covering signs which do not apply to conditions existing from day to day.

1.5 Control of Public Traffic

- .1 Provide competent flag persons, trained in accordance with, and properly equipped as specified in, Ontario Traffic Control Book 7, in following situations:
 1. When public traffic is required to pass working vehicles or equipment which block all or part of travelled roadway.
 2. When it is necessary to institute one-way traffic system through construction area or other blockage where traffic volumes are heavy, approach speeds are high and traffic signal system is not in use.
 3. When workmen or equipment are employed on travelled way over brow of hills, around sharp curves or at other locations where oncoming traffic would not otherwise have adequate warning.
 4. Where temporary protection is required while other traffic control devices are being erected or taken down.
 5. For emergency protection when other traffic control devices are not readily available.
 6. In situations where complete protection for workers, working equipment and public traffic is not provided by other traffic control devices.

1.6 Operational Requirements

- .1 Maintain existing conditions for traffic throughout period of contract.

END OF SECTION

PART 1 - GENERAL

1.1 General Requirements

- .1 The General Requirements, Bid Form, Instructions to Bidders, Bid Policies, Special Provisions, The Agreement and the Contract Drawings shall form part of this specification in the same manner as if they were recited in full herewith.
- .2 Refer to other Specifications in these Documents to determine their effect upon the work of this section.

1.2 References and Codes

- .1 Perform Work in accordance with National Building Code of Canada (NBC) including all amendments up to tender closing date and other codes of provincial or local application provided. In case of conflict or discrepancy, the more stringent requirements apply.
- .2 Meet or exceed the requirements of:
 1. Contract Documents.
 2. Specified standards, codes and referenced documents.

1.3 Hazardous Material Discovery

- .1 Should any hazardous material be encountered in the course of the Work, immediately stop work and notify the Client Representative.

END OF SECTION

PART 1 - GENERAL

1.1 General Requirements

- .1 The General Requirements, Bid Form, Instructions to Bidders, Bid Policies, Special Provisions, The Agreement and the Contract Drawings shall form part of this specification in the same manner as if they were recited in full herewith.
- .2 Refer to other Specifications in these Documents to determine their effect upon the work of this section.

1.2 Installation and Removal

- .1 Provide temporary utilities and controls to execute work expeditiously.
- .2 Remove from site all such work after use.

1.3 Dewatering

- .1 Provide temporary drainage and pumping facilities to keep excavations and site free from standing water.

1.4 Water Supply

- .1 Provide continuous supply of potable water for construction use.
- .2 Arrange for connection with appropriate utility company and pay all costs for installation, maintenance, and removal.
- .3 Pay for utility charges at prevailing rates.

1.5 Temporary Power and Light

- .1 Provide and pay for temporary power during construction for temporary lighting and operating of power tools.
- .2 Arrange for connection with appropriate utility company. Pay all costs for installation, maintenance, and removal.

1.6 Fire Protection

- .1 Provide and maintain temporary fire protection equipment during performance of Work required by insurance companies having jurisdiction and governing codes, regulations, and bylaws.
- .2 Burning rubbish and construction waste materials is not permitted on site.

END OF SECTION

PART 1 - GENERAL

1.1 General Requirements

- .1 The General Requirements, Bid Form, Instructions to Bidders, Bid Policies, Special Provisions, The Agreement and the Contract Drawings shall form part of this specification in the same manner as if they were recited in full herewith.
- .2 Refer to other Specifications in these Documents to determine their effect upon the work of this section.

1.2 Installation and Removal

- .1 Provide all temporary controls required to execute the Work expeditiously.
- .2 Remove from site all such work after use.

1.3 Hoarding

- .1 Erect temporary construction fence using 1.8 m high metal modular fencing panels firmly fastened together and staked to the ground as required.
- .2 Provide one lockable truck gate.
- .3 Maintain fence in good repair through duration of contract. Ensure hoarding barrier restricts public access at all times. Refer to plans for location.
- .4 Provide barriers around trees and plants designated to remain. Protect from damage by equipment and construction procedures as per applicable detail.
- .5 Should the project schedule be prolonged by Contractor delays, the Contractor shall be responsible for maintaining fencing until Substantial Completion at no additional cost to the Owner.

1.4 Guard Rails and Barricades

- .1 Provide secure, rigid guard rails and barricades around deep excavations.

1.5 Sediment Control Fencing

- .1 Provide, install, and secure prefabricated sediment control fencing to prevent sediment migration on / off site as indicated on drawings.
- .2 Remove sediment control measures following Substantial Completion, or as directed by the Client Representative.

1.6 Access to Site

- .1 Provide and maintain access roads, sidewalk crossings, ramps and construction runways as may be required for access to Work.

1.7 Public Traffic Flow

- .1 Provide and maintain competent signal flag operators, traffic signals, barricades and flares, lights or lanterns required to perform Work and protect the public at all times.

1.8 Fire Routes

- .1 Maintain access to property including overhead clearances for use by emergency response vehicles.

1.9 Protection for Off-Site and Public Property

- .1 Protect surrounding private and public property from damage during performance of Work.
- .2 Be responsible for damage incurred.

1.10 Protection of Adjacent Buildings

- .1 Provide protection for finished and partially finished adjacent buildings and equipment during performance of Work.
- .2 Provide necessary screens, covers and hoardings.
- .3 Be responsible for damage incurred due to lack of or improper protection.

END OF SECTION

PART 1 - GENERAL

1.1 General Requirements

- .1 The General Requirements, Bid Form, Instructions to Bidders, Bid Policies, Special Provisions, The Agreement and the Contract Drawings shall form part of this specification in the same manner as if they were recited in full herewith.
- .2 Refer to other Specifications in these Documents to determine their effect upon the work of this section.

1.2 Fires

- .1 Fires and burning of rubbish on site are not permitted.

1.3 Disposal of Wastes

- .1 Project to be conducted in compliance with the general "reduce, reuse and recycle" procedures to protect the environment.
- .2 Do not bury rubbish and waste materials on site.
- .3 Do not dispose of waste or volatile materials, such as mineral spirits, oil, or paint thinner into waterways, storm or sanitary sewers.

1.4 Drainage & Erosion Control

- .1 Provide temporary drainage and pumping as necessary to keep excavations and site free from excess water.
- .2 Do not pump water containing suspended materials into waterways, sewer or drainage systems.
- .3 Control disposal or runoff of water containing suspended materials or other harmful substances in accordance with local authority requirements.
- .4 Provide silt fencing at site perimeters and where required by local authorities to prevent contamination of adjoining properties from silt and water drainage. Repair and maintain as necessary.

1.5 Site Clearing and Plant Protection

- .1 Protect trees and plants on site and adjacent properties where indicated.
- .2 Conform to all local By-Laws regarding tree preservation and protection (as applicable).

- .3 Construct protective hoarding around trees and shrubs adjacent to construction work, as shown on drawings.
- .4 Protect roots of designated trees to drip line during excavation and site grading to prevent disturbance or damage. Avoid unnecessary traffic, dumping and storage of materials over root zones.
- .5 Minimize stripping of topsoil and vegetation.
- .6 Restrict tree removal to areas indicated on drawings.

1.6 Work Adjacent to Waterways

- .1 Do not operate construction equipment in waterways.
- .2 Do not use waterway beds for borrow material.
- .3 Do not dump excavated fill, waste material or debris in waterways.
- .4 Do not skid logs or construction materials across waterways.
- .5 Avoid indicated spawning beds when constructing temporary crossings of waterways.

1.7 Pollution Control

- .1 Maintain temporary erosion and pollution control features installed under this contract.
- .2 Maintain and regularly clean temporary measures (mud mats) installed points of construction access and egress
- .3 Control emissions from vehicles, equipment, and plant to local authorities' emission requirements.
- .4 Prevent extraneous materials from contaminating air beyond application area, by providing temporary enclosures.
- .5 Cover or wet down dry materials and rubbish to prevent blowing dust and debris. Provide dust control for temporary roads.

END OF SECTION

PART 1 - GENERAL

1.1 General Requirements

- .1 The General Requirements, Bid Form, Instructions to Bidders, Bid Policies, Special Provisions, The Agreement and the Contract Drawings shall form part of this specification in the same manner as if they were recited in full herewith.
- .2 Refer to other Specifications in these Documents to determine their effect upon the work of this section.

1.2 Product Options

- .1 Provide products specified on the drawings and under individual specification sections.
- .2 Where specification lists two (2) or more products or two (2) or more manufacturers of the same product, the Contractor may select one (1) of the listed products or manufacturers.
- .3 When only one product or manufacturer is listed in the specifications, it is intended that only that product or manufacturer is acceptable.
- .4 The Contractor shall confirm the selection of products and manufacturers when requested by the Client Representative.

1.3 Product Substitution Procedures

- .1 Substitution Procedures:
 1. Product substitution requests must be submitted prior to the tender period question deadline for Client Representative review.
 2. Product substitution requests must be submitted by the Bidder. Requests submitted directly from product manufacturers will not be accepted.
 3. Products may only be substituted during the post tender period for one (1) or more of the following reasons:
 - .1 Insolvency of the product manufacturer.
 - .2 Inability of the manufacturer to provide the product(s) in the timeframe required to maintain the construction schedule.
 - .3 Product specified has been discontinued.
 - .4 Substitution proposed offers better performance than

that specified, at no additional cost.

- .5 Substitution offers equivalent performance to that specified, at a reduced cost to the Owner (reduction in Contract Price).
4. Items .2 and .3 will require a letter from the manufacturer, confirming their inability to provide the products specified, or inability to meet the schedule.
5. Items .4 and .5 will be at the discretion of the Owner.
6. Contractor to provide a complete description of the alternative proposed including product name, name of the manufacturer, technical data, warranty information, relevant standards, and samples of both the specified and proposed substitute items at no cost to the Owner.
7. Any product wishing to be considered equal must demonstrate they meet the definition through a point-by-point technical comparison listing attributes of the specified product alongside the attributes of the proposed replacement.

1.4 Availability

- .1 Immediately upon signing the Contract, review product delivery requirements, and identify lead times for supply of all products. If lead times in supply of products may affect the Construction Schedule, notify the Client Representative in order that appropriate action may be authorized in ample time to prevent delay in performance of the Work.
- .2 In the event of failure to notify the Client Representative at commencement of Work, and should it appear that Work may be delayed for such reason, the Client Representative reserves the right to substitute more readily available products of similar character, at no increase in Contract Price.

1.5 Reference Standards

- .1 Within the specifications, reference standards are identified. The Contractor shall conform to these standards, in whole or part, as specifically requested.
- .2 If there is question as to whether any product or systems is in conformance with applicable standards, the Client Representative reserves the right to have such products or systems tested to prove or disprove conformance.

- .3 The cost for such testing will be borne by the Owner in the event of conformance with Contract Documents or by the Contractor in the event of non-conformance.
- .4 Conform to the latest date of issue of reference standards in effect on date of submission of bids, except where a specific date of issue is specifically noted.
- .5 Reference may be made to the following standards:
- | | | |
|-------|---|---|
| ACI | - | American Concrete Institute |
| AISC | - | American Institute of Steel Construction |
| ANSI | - | American National Standards Institute |
| ASTM | - | American Society of Testing and Materials |
| CEC | - | Canadian Electrical Code (published by CSA) |
| CEMA | - | Canadian Electrical Association |
| CGSB | - | Canadian General Standards Board |
| CISC | - | Canadian Institute of Steel Construction |
| CLA | - | Canadian Lumbermen's Association |
| CNTA | - | Canadian Nursery Trades Association |
| CPCI | - | Canadian Pre-stressed Concrete Institute |
| CSA | - | Canadian Standards Association |
| IEEE | - | Institute of Electrical and Electronic Engineers |
| IPCEA | - | Insulated Power Cable Engineers Association |
| MTO | - | Ontario Ministry of Transportation |
| NAAMM | - | National Association of Architectural Metal Manufacturers |
| NBC | - | National Building Code |
| NEMA | - | National Electrical |
| OBC | - | Ontario Building Code |
| OPSS | - | Ontario Provincial Standard Specification |
| ULC | - | Underwriters' Laboratories of Canada |

Conform to these standards, in whole or in part, as specifically requested in the specification.

1.6 Product Transportation and Delivery

- .1 Transportation and delivery costs of products required in the performance of the Work, are included in the Contract Price.
- .2 Transportation and delivery costs of products supplied by the Owner will be paid for by the Owner. Unload, handle, and store such products on Site.
- .3 Products must be appropriately crated, skidded, boxed, shrink-wrapped, or otherwise packaged to protect such products from damage during shipment. Products which arrive at the site in a

damaged condition must be rejected and returned to the supplier/manufacturer for immediate replacement.

- .4 Advise the Owner 30-days in advance of anticipated delivery dates for materials and equipment supplied by the Owner.

1.7 Product Storage, Handling, and Protection

- .1 Handle and store Products in a manner to prevent damage, adulteration, deterioration and soiling and in accordance with manufacturer's instructions.
- .2 Store packaged or bundled Products in original and undamaged condition with manufacturer's seal and labels intact. Do not remove from packaging or bundling until required in the Work.
- .3 Store products subject to damage from weather in weatherproof enclosures.
- .4 Store cementitious products clear of earth or concrete floors, and away from walls.
- .5 Keep sand, when used for grout or mortar materials, clean and dry. Store sand on wooded platforms and cover with waterproof tarpaulins during inclement weather.
- .6 Store sheet materials and lumber on flat, solid supports and keep clear of ground. Slope to shed moisture.
- .7 Store paints in a heated and ventilated room. Remove oily rags and other combustible debris from site daily. Take every precaution necessary to prevent spontaneous combustion.
- .8 Remove and replace damaged Products at own expense and to the satisfaction of the Client Representative.

1.8 Manufacturer's Instructions

- .1 Unless otherwise indicated in the specifications, install or erect Products in accordance with manufacturer's printed instructions. Do not rely on labels or enclosures provided with Products. Obtain written instructions directly from manufacturers.
- .2 Notify the Client Representative in writing of conflicts between the specifications and manufacturers instructions, so that Client Representative may establish correct course of action.
- .3 Improper installation or erection of products, due to failure in complying with these requirements, authorizes the Client Representative to require removal, replacement where necessary, and re-installation at no increase in Contract Price.

1.9 Fastenings

- .1 Provide metal fastenings and accessories in same texture, colour, and finish as adjacent materials, unless indicated otherwise.
- .2 Prevent electrolytic action between dissimilar metals and materials.
- .3 Use non-corrosive hot dip galvanized steel fasteners and anchors for securing exterior work, unless stainless steel or other materials specifically requires in the affected specification Section.
- .4 Space anchors within limits of load limit or shear capacity and ensure that they provide positive permanent anchorage. Wood or any other organic material plugs are not acceptable.
- .5 Keep exposed fastenings to a minimum, space evenly and install neatly.
- .6 Fastenings which cause spalling or cracking of material to which anchorage is made are not acceptable.
- .7 Obtain Client Representatives approval before using explosive actuated fastening devices.

1.10 Quality of Materials

- .1 Products, materials, equipment, and articles (referred to as Products throughout the specifications) incorporated in the Work shall be new, not damaged or defective, and of the best quality (compatible with specifications) for the purpose intended. If requested, furnish evidence as to type, source, and quality of Products provided.
- .2 Products relying on uniformity of colour and pattern for appearance shall be from one dye lot for the project. All products delivered to the site must be labelled as to dye lot, or production run number, as well as production date.
- .3 Defective products, whenever identified prior to the completion of Work, will be rejected regardless of previous inspections. Inspection does not relieve responsibility but is a precaution against oversight or error. Remove and replace defective Products at own expense and be responsible for delays and expenses caused by rejection.
- .4 Should any dispute arise to the quality or fitness of the Products, the Client Representative may request additional testing based upon the requirements of the Contract Documents, to confirm acceptability of products or materials.

- .5 Unless otherwise indicated in the specifications, maintain uniformity of manufacture for any particular or like item throughout the project.
- .6 Permanent labels, trademarks and nameplates on Products are not acceptable in prominent locations, except where required for operating instructions, or when located in mechanical or electrical rooms.

1.11 Defective Materials and Work

- .1 Where evidence exists that defective work has occurred, or that work has been carried out by incorporating defective products, the Client Representative may have independent tests, inspections, or surveys performed in order to determine if work is defective.
- .2 Tests, inspections, or surveys carried out under these circumstances will be made at the Contractor's expense in the event of defective work, or at the Owner's expense where work is in conformance. Where tests incorporate several samples, payment will be assessed, by the Client Representative, based on the ration of conforming to non-conforming results. This does not include re-testing of soil compaction during placement, where evidence exists of non-conformance with the Contract Documents, but rather only if re-testing is called for after completion or compaction.

1.12 Warranties and Guarantees

- .1 Warrant all products and labour forming part of the Work for the period specified in the Contract, unless otherwise specified herein.
- .2 Warranty Products and assemblies for the specified periods of time where in excess of the Contract Warranty, as specified within their respective sections.
- .3 Guarantee aspects of the Work for the specified periods of time where in excess of the Contract Warranty, as specified within their respective sections.
- .4 Warranties and Guarantees shall commence at Date of Substantial Performance of the Contract as certified by the Client Representative.
- .5 Warranties and Guarantees shall be original copies, printed on company letterhead, or on a standard company warranty certificate, bearing the name of the company.
- .6 Warranties and Guarantees shall indicate:
 - 1. Name of the Principal (the Manufacturer/Subcontractor),

2. Name of the Obligee (the Owner),
3. Name and address of the Project,
4. Commencement date (Date of Substantial Performance),
5. Duration of warranty or guarantee,
6. Clear statement of what is included, and what if any exclusions there are, and
7. Signature of Principal's representative having signing authority.

END OF SECTION

PART 1 - GENERAL

1.1 General Requirements

- .1 The General Requirements, Bid Form, Instructions to Bidders, Bid Policies, Special Provisions, The Agreement and the Contract Drawings shall form part of this specification in the same manner as if they were recited in full herewith.
- .2 Refer to other Specifications in these Documents to determine their effect upon the work of this section.

1.2 Progress Records

- .1 Maintain on site, permanent written records of daily progress of the Work. Records shall be open to review by Client Representative at all times and a copy shall be furnished to Client Representative on a weekly basis.
- .2 Records shall show dates of commencement, progress and completion of various trades and items of work. Particulars pertaining to number of employees of various trades and type and quantity of equipment employed daily, temperature, protection methods and other such data shall be noted.

1.3 Record Drawings (As-Built Drawings)

- .1 The Client Representative will provide the Contractor with a complete set of contract drawings in PDF format. The Contractor shall produce the required hard copies from the PDF drawings.
- .2 The Contractor shall use these drawings exclusively to record all approved changes and conditions, which are at variance with original drawings. Such changes shall be clearly marked in red with all dimensions. These drawings shall constitute the field record.
- .3 Maintain as-built drawings on site and update as construction progresses. Allow periodic review by the Client Representative as requested.
- .4 Record information concurrently with construction progress. Do not conceal work until required information is recorded.
- .5 Contract drawings and shop drawings: legibly mark each item to record actual construction, including:
 1. Measured horizontal and vertical locations of underground utilities and appurtenances, referenced to permanent surface improvements.
 2. Field changes of dimension and detail.

3. Changes made by change orders.
4. Details not on original Contract Drawings.
5. References to related shop drawings and modifications.
- .6 The field record drawing set will be submitted to the Client Representative upon completion of all work. Drawings shall be dated, with reference to origin of any changes, and signed by the Contractor.
- .7 A copy of the reduced size drawings shall be submitted to the Client Representative with each application for payment and shall clearly indicate any changes in the work to the date of the payment application, as well as clearly indicating all work included in the application for payment.
- .8 Upon completion of the project, the Contractor will provide a full set of as-built drawings in a Client approved digital AutoCAD and PDF formats plus one (1) hard copy to the Client Representative and Owner.

END OF SECTION

PART 1 - GENERAL

1.1 General Requirements

- .1 The General Requirements, Bid Form, Instructions to Bidders, Bid Policies, Special Provisions, The Agreement and the Contract Drawings shall form part of this specification in the same manner as if they were recited in full herewith.
- .2 Refer to other Specifications in these Documents to determine their effect upon the work of this section.

1.2 General

- .1 Be responsible for cleanliness of site and structures to satisfaction of the Owner.
- .2 Maintain work and the project site in neat and orderly condition at all times.
- .3 Clean accumulation of construction waste and debris on a regular basis or as directed by the Client Representative.
- .4 Burning or burying of rubbish and waste materials on site is not permitted.
- .5 Do not dispose of volatile wastes such as mineral spirits, oil, or paint thinner in storm or sanitary sewers.
- .6 While on the premises, all hazardous waste shall be properly identified and stored so as not to pose a safety hazard to employees, workers, or the public.
- .7 Keep site clear from the accumulation of surplus waste material.

1.3 Cleaning During Construction

- .1 Wet down dry materials and rubbish to prevent blowing dust. Entry roads shall be kept in a clean and satisfactory condition as approved and directed by the Client Representative.
- .2 Schedule cleaning operations to ensure that dust and other construction contaminants will not fall on wet, newly painted, or paved surfaces.
- .3 Remove oily rags, waste, and other hazardous substances from premises at close of each day.

1.4 Final Cleaning

- .1 Prior to Substantial Completion, remove surplus products, tools, construction machinery and equipment, waste products and debris and leave site suitable for occupancy.

- .2 Prior to Substantial Completion, thoroughly clean all surfaces and components. Provide professional cleaning of all areas and surfaces to allow owner to occupy without further cleaning.
- .3 Remove all stains, dirt, and smudges from finished surfaces with cleaning products recommended by the manufacturer.
- .4 Broom clean and wash exterior walks, steps, and surfaces; rake clean other surfaces of grounds.
- .5 Remove dirt and other disfiguration from exterior surfaces.
- .6 Sweep and wash clean paved areas.
- .7 Clean and check drainage systems.

END OF SECTION

PART 1 - GENERAL

1.1 General Requirements

- .1 The General Requirements, Bid Form, Instructions to Bidders, Bid Policies, Special Provisions, The Agreement and the Contract Drawings shall form part of this specification in the same manner as if they were recited in full herewith.
- .2 Refer to other Specifications in these Documents to determine their effect upon the work of this section.

1.2 Inspection and Declaration

- .1 The Town, Client Representative, and Contractor will perform an inspection of the Work to identify obvious defects or deficiencies. The Contractor shall correct the Work accordingly.
- .2 A Certificate of Substantial Performance shall be issued by the Client Representative when the Town considers deficiencies and defects to have been corrected and the requirements of Contract to be substantially performed.
- .3 The date the work was deemed to be substantially performed (as identified on the Certificate of Substantial Performance issued by the Client Representative) shall be date for commencement of the warranty period.

1.3 Submission of Spare Parts, Maintenance Materials and Special Tools

- .1 The Contractor shall provide spare parts in the quantities specified on drawings and in individual specification sections. Items provided shall be identical to those items installed in the Work.
- .2 The Contractor shall provide maintenance materials in the quantities specified on drawings and in individual specification sections. Items provided shall be identical to those items installed in the Work.
- .3 The Contractor shall provide special tools in the quantities specified on drawings and in individual specification sections. Items provided shall be identical to those items installed in the Work.
- .4 The Contractor shall ensure spare parts, maintenance materials and special tools provided to the Town are new, undamaged, not defective, and of the same quality and manufacture as products provided in the Work.
- .5 If requested by the Town or Client Representative, the Contractor shall furnish evidence as to type, source and quality of products provided.

- .6 Defective or damaged spare parts, maintenance materials or special tools will be rejected, regardless of previous inspections. Replacement of damaged products is at the Contractor's expense.
- .7 The Contractor shall receive and catalogue all items, check inventory, and include approved listings in the Operations and Maintenance Manual.
- .8 Spare parts, maintenance materials and special tools shall be provided complete with tags identifying their associated function and equipment.
- .9 Items shall be delivered, placed, and stored by the Contractor in a location(s) as directed by the Town.
- .10 Store spare parts, maintenance materials and special tools in a manner to prevent damage, or deterioration.
 - .1 Store in original and undamaged containers with manufacturer's seals or labels intact.
 - .2 Store materials subject to damage from severe climatic changes in a climate controlled, weatherproof enclosure.
 - .3 Store paints and freezable materials in a moderately heated and ventilated room.
- .11 All shipping costs associated with delivery shall be borne by the Contractor.
- .12 The Contractor shall obtain receipts for delivered products and submit to the Client Representative prior to Substantial Performance.

1.4 Submission of Operating and Maintenance Manual

- .1 Operating and maintenance manuals shall include instructions and data prepared by personnel experienced in the maintenance and operation of the described products.
- .2 Prior to Substantial Performance of the Work, the Contractor shall submit to the Town one final printed hard copy and one electronic copy of all operating and maintenance manuals (English versions).
- .3 If requested by the Town, the Contractor shall furnish evidence as to the type, source and quality of products provided.

1.5 Format of Operating and Maintenance Manual

- .1 Organize data in the form of an instructional manual.

- .2 Provide a Table of Contents.
- .3 Arrange contents by systems, under Section numbers and sequence of Table of Contents.

1.6 Contents of Operating and Maintenance Manual

- .1 Table of Contents
- .2 Project Information:
 1. Title of project
 2. Date of submission
 3. Names, addresses, and telephone numbers of the Contractor with name of responsible parties.
 4. Warranty and guarantee certificates.
- .3 Schedule of Products and Systems: For each product or system list provide the names, addresses and telephone numbers of subcontractors and suppliers, including local source of supplies and replacement parts.
- .4 Product Data: Mark each sheet to clearly identify specific products and component parts, and data applicable to installation; delete inapplicable information.
 1. Drawings (as required to supplement product data): Supplement product data to illustrate relations of component parts of equipment and systems, to show control and flow diagrams.
 2. Typewritten Text (as required to supplement product data): Provide logical sequence of instructions for each procedure, incorporating manufacturer's instructions.
 3. Spare Parts Listing: Include complete listing of spare parts submitted to the Town.
 4. Special Tools Listing: Include complete listing of special tools submitted to the Town.
- .5 Materials and Finishes:
 1. Building Products, Applied Materials, and Finishes: include product data, with catalogue number, size, composition, and colour and texture designations. Provide information for reordering custom manufactured products.
 2. Instructions for cleaning agents and methods, precautions against detrimental agents and methods, and recommended schedule for cleaning and maintenance.
 3. Moisture-protection and Weather - Exposed Products: include manufacturer's recommendations for cleaning agents and methods, precautions against detrimental agents and methods, and recommended schedule for cleaning and maintenance.

- .6 Equipment and Systems:
 1. Each Item of Equipment and Each System: include description of unit or system, and component parts. Give function, normal operation characteristics, and limiting conditions. Include performance curves, with engineering data and tests, and complete nomenclature and commercial number of replaceable parts.
 2. Panel board circuit directories: provide electrical service characteristics, controls, and communications.
 3. Include installed colour coded wiring diagrams.
 4. Operating Procedures: include start-up, break-in, and routine normal operating instructions and sequences. Include regulation, control, stopping, shutdown, and emergency instructions. Include summer, winter, and any special operating instructions.
 5. Maintenance Requirements: include routine procedures and guide for troubleshooting; disassembly, repair, and reassembly instructions; and alignment, adjusting, balancing, and checking instructions.
 6. Provide servicing and lubrication schedule, and list of lubricants required.
 7. Include sequence of operation by controls manufacturer.
 8. Provide original manufacturer's parts list, illustrations, assembly drawings, and diagrams required for maintenance.
 9. Provide Contractor's coordination drawings, with installed colour coded piping diagrams.
 10. Provide charts of valve tag numbers, with location and function of each valve, keyed to flow and control diagrams.
 11. Provide list of original manufacturer's spare parts, current prices, and recommended quantities to be maintained in storage.

1.7 As-Built Drawings

- .1 The Client Representative will provide the Contractor with a complete set of contract drawings in PDF format. The Contractor shall produce the required hard copies from the PDF drawings.
- .2 The Contractor shall use these drawings exclusively to record all approved changes and conditions, which are at variance with original drawings. Such changes shall be clearly marked in red with all dimensions. These drawings shall constitute the field record.
- .3 Maintain as-built drawings on site and update as construction progresses. Allow periodic review by the Client Representative as requested.

- .4 Record information concurrently with construction progress. Do not conceal work until required information is recorded.
- .5 Contract drawings and shop drawings: legibly mark each item to record actual construction, including:
 1. Measured horizontal and vertical locations of underground utilities and appurtenances, referenced to permanent surface improvements.
 2. Field changes of dimension and detail.
 3. Changes made by change orders.
 4. Details not on original Contract Drawings.
 5. References to related shop drawings and modifications.
- .6 The field record drawing set will be submitted to the Client Representative upon completion of all work. Drawings shall be dated, with reference to origin of any changes, and signed by the Contractor.
- .7 A copy of the reduced size drawings shall be submitted to the Client Representative with each application for payment and shall clearly indicate any changes in the work to the date of the payment application, as well as clearly indicating all work included in the application for payment.
- .8 Upon completion of the project, the Contractor will provide a full set of as-built drawings in a Client approved digital AutoCAD and PDF formats plus one (1) hard copy to the Client Representative and Owner.

END OF SECTION

PART 1 - GENERAL

1.1 General Requirements

- .1 The General Requirements, Bid Form, Instructions to Bidders, Bid Policies, Special Provisions, The Agreement and the Contract Drawings shall form part of this specification in the same manner as if they were recited in full herewith.
- .2 Refer to other Specifications in these Documents to determine their effect upon the work of this section.

1.2 Work Included

- .1 The Contractor is to supply all necessary labour, materials, tools, services, and incidentals to complete the specified demolition and removal and disposal of all materials as shown on the drawings and as specified herein.

1.3 Related Sections

- .1 Section 02231 – Clearing and Grubbing
- .2 Section 02310 – Rough Grade
- .3 Section 02315 – Excavating, Trenching, Backfilling

1.4 References

- .1 OPSS 510 - Removal

1.5 Submittals

- .1 Existing Conditions Documentation:
 1. Document existing conditions of adjoining construction and site improvements, including finish surfaces that might be misconstrued as damage caused by demolition operations. Submit existing conditions documentation before demolition work begins.

1.6 Site Examination

- .1 Verify all site conditions which may affect the performance of this section.
- .2 Report in writing all conditions which may adversely affect the work of this section.
- .3 Commencement of the work implies acceptance of all surfaces and site conditions. No claims for damages or extras after commencement of the work will be accepted, except where such

damages or extras are due to conditions which could not be determined prior to construction.

1.7 Protection

- .1 The Contractor shall ensure that all adjacent private and public properties are protected from damage resulting from this work.
- .2 Install protective fences, barricades, signs, and other substantial constructions as required to provide physical protection or as otherwise specified in the drawings.
- .3 Protect municipal sidewalks from heavy vehicular damage and keep all roadways, lanes, and sidewalks clean and clear of all dirt, debris, etc., resulting from the work.
- .4 Erect shoring, bracing and other structures as required to prevent collapse, settlement, and movement of any property.
- .5 Erect warning signs and protective barriers in accordance with all applicable regulations. Post danger signs in conspicuous locations to warn persons that demolition / construction is in progress.
- .6 Locate and protect all buried services. The Contractor shall be held responsible for all damages to utilities and structures resulting from his work. If necessary, relocate active services to ensure that they function continuously, safely and without risk of damage.
- .7 Cap-off and remove unused services encountered during demolition. Proceed with this work only after receiving approval from the Owner and Jurisdictional authorities.
- .8 Size, depth and location of existing utilities and structures as indicated are for guidance only. Completeness and accuracy are not guaranteed.
- .9 Remove all protections and barricades only when directed to do so by the Client Representative.
- .10 Protect work to remain against damage. Repair or replace damaged work at no additional cost to the owner.

PART 2 - PRODUCTS

2.1 Materials

- .1 In accordance with the Drawings and Specifications.
- .2 Granular 'A': Clean, hard, durable crushed gravel or stone, free from shale, clay, friable materials, organic matter and other deleterious substances with physical properties and gradation to conform to OPSS 1010.

- .3 Granular 'B': Clean, hard, durable crushed gravel or stone, free from shale, clay, friable materials, organic matter and other deleterious substances with physical properties and gradation to confirm to OPSS 1010, Granular B Type I and Type II.

PART 3 - EXECUTION

3.1 Examination

- .1 Verify that utilities have been disconnected and capped.
- .2 Observe existing conditions and correlate with requirements indicated to determine extent of selective demolition required.
- .3 Inventory and record the condition of items to be removed and reinstalled and items to be removed and salvaged.
- .4 Survey of existing conditions: record existing conditions by use of photographs.

3.2 Demolition

- .1 The Contractor shall assume responsibility for demolition removal and/or salvage of the items noted on the demolition and removal plan in the condition that they are at the time of written notification of the award of the contract.
- .2 All items designated on drawings to be removed shall be disposed of off-site unless clearly specified otherwise.
- .3 Remove flammable, contaminated materials and refuse before demolition commences. Remove in accordance with all applicable by-laws and regulations.
- .4 Water down debris as frequently as required to prevent the spread of dust. Provide water connections and lines for this purpose.
- .5 Pile or remove debris with protruding nails and withdraw or flatten nails as the work proceeds.
- .6 Remove completely all concrete foundations and piers, etc., and backfill and compact voids as specified.
- .7 Grade evenly to suit and/or match existing surrounding grades.
- .8 Remove all grass and topsoil as indicated on the drawings.
- .9 Remove existing asphalt pavement to lines and grades as indicated and as directed by the Client Representative. Edges of existing paving shall be saw-cut clean and smooth.
- .10 Blasting will not be permitted.

3.3 Backfill and Compaction

- .1 Backfilling to be done in accordance with Section 02315 – Excavating, Trenching, Backfilling.
- .2 Backfill with Granular ‘A’ or Granular ‘B’ backfill as designated on the drawings.
- .3 Backfill shall be placed in 150 mm loose layers and each layer compacted with power driven mechanical equipment to obtain minimum 95% dry density modified Proctor value. Engage the services of an independent testing company to certify that all compaction meets this specification.

3.4 Stockpiling

- .1 Label stockpiles, indicating material type and quantity.
- .2 Designate appropriate security resources/measures to prevent vandalism, damage, and theft.
- .3 Locate stockpiled materials convenient for use in new construction to eliminate double handling wherever possible.
- .4 Remove stockpiled material as directed by the Client Representative when it interferes with operations of the project.
- .5 Dispose of materials in accordance with applicable regulations and in accordance with Section 02315 – Excavating, Trenching, Backfilling.
- .6 Protect stockpiled materials from contamination and freezing.

3.5 Cleaning and Completion of Work

- .1 Remove all materials, surfaces, facilities, and features specified, on the drawings and in the specifications, and to execute the work of this Contract. Dispose of all removed materials off the site to an approved disposal facility, except for materials approved to be salvaged. Remove daily. Do not overload trucks and otherwise take all necessary precautions to prevent spillage during transit to the dumpsite.
- .2 All dumping charges shall be included in the contract.
- .3 Any salvageable material from the demolition shall be removed from the site before being advertised for sale or otherwise sold.
- .4 On completion of the work the site shall be left in a clean and tidy condition, free from all rubbish, debris, protections, barricades, etc., and shall be graded as specified and detailed.

3.6 Salvage

- .1 Unless otherwise specified the Contractor shall take possession of all salvage resulting from the demolition work.
- .2 Treasures such as fossils, coins, bills, articles of value or antiquity, historical artifacts and relics of archaeological interest discovered during the demolition work shall remain the property of the Owner and shall remain in situ until inspected by a licensed Archaeologist per the requirements of the MHSTCI.

END OF SECTION

PART 1 - GENERAL

1.1 General Requirements

- .1 The General Requirements, Bid Form, Instructions to Bidders, Bid Policies, Special Provisions, The Agreement and the Contract Drawings shall form part of this specification in the same manner as if they were recited in full herewith.
- .2 Refer to other Specifications in these Documents to determine their effect upon the work of this section.

1.2 Work Included

- .1 The Contractor is to supply all necessary labour, materials, tools, services, and incidentals to undertake the specified clearing and grubbing as shown on the drawings and as specified herein, including
 1. Clearing and grubbing of existing vegetation.
 2. Temporary site protection, site controls and traffic management required for pedestrian and vehicular safety and control within the work site, including (but not limited to) necessary warning devices, barricades, and protection measures.
 3. General site clean-up – the work site shall be left in equal to or cleaner than pre-work conditions.;

1.3 Related Sections

- .1 Section 02050 – Demolition

1.4 References

- .1 OPSS 201 – Clearing, Close Cut Clearing, Grubbing, and Removal of Surface and Piled Boulders
- .2 When pruning is necessary, pruning guidelines / standards set out by the I.S.A. shall be used in the performance of the work. Reference ANSI A300 Pruning Standards (2001 Edition), and Illustrated Guide to Pruning, 2nd Edition (2002 ISA).

1.5 Definitions

- .1 Clearing: means the cutting of all standing trees, brush, bushes, and other vegetation to a maximum of 300mm above original ground level and the removal of felled materials and debris.
- .2 Grubbing: means the excavation and removal of stumps, roots, embedded logs, boulders, rock fragments, and debris from a maximum of 300mm above original ground level to not less than a specified depth below the existing ground surface.

1.6 Protection

- .1 Trees shall be removed in a manner that does not jeopardize public safety.
- .2 Prevent damage to structures, fencing, trees, natural landscape features, benchmarks, existing pavement, utility lines, site appurtenances, water courses, and root systems of trees which are to remain.
- .3 All costs from damages caused by the Contractor during the undertaking of their work shall be borne by the Contractor.

1.7 General Qualifications

- .1 The Contractor's crew must be capable urban forestry workers who have received and maintained training specific to tree removals, tree maintenance and associated equipment and vehicles.
- .2 At any time, the Contract Manager or Contract Administrator may request proof of qualifications for all workers on-Site.
- .3 **Working Foreperson Qualifications:**
 1. At least five (5) years of experience in all aspects of urban forestry in a supervisory capacity.
 2. ISA Certified Arborist or equivalent.
 3. Utility Arborist certification is an asset.
 4. The ability to work independently and direct their staff in a safe, effective, and efficient manner.
 5. Ability to identify tree species and a thorough knowledge of their structure and growth habits.
 6. Ability to identify structural weaknesses, flaws, safety hazards and the ability to perform remedial work, as necessary.
- .4 **Arborist Qualifications:**
 1. At least three (3) years of experience in Urban Tree maintenance; will work under the direction of the Foreperson.
 2. ISA Certified Arborist or equivalent.
 3. Fully trained in the identification of tree species and have a full knowledge of their structure, growth habits, pruning requirements and practices.
- .5 **Apprentice/Labourer Requirements**
 1. Individuals must be familiar with all aspects of tree removals and maintenance and related equipment and vehicles.
 2. Individuals must perform services safely and efficiently under the direction of the Working Foreperson.

PART 2 - PRODUCTS

NOT USED

PART 3 - EXECUTION

3.1 Preparation

- .1 Inspect the site and verify with the Client Representative the extent of work including confirmation of trees designated to remain.
- .2 Notify utility authorities as required prior to commencing work.
- .3 Locate and protect all utilities.
- .4 Preserve the operating condition of all operating utilities traversing the site.
- .5 Depending on location of work, the Contractor may be responsible for obtaining Road Occupancy Permits from the Town's Transportation and Works Department.
 1. Contractors shall require a Road Occupancy Permit when they are working within, and/or staging materials and equipment within, the Road Right-of-Way which includes the boulevard, sidewalk, splash strip, curb, and turf areas (as applicable).
 2. The Town will advise the Contractor if a Road Occupancy Permit is required and will assist the Contractor in obtaining the permit in advance of the work.
- .6 The Limits of Clearing and Grubbing shall be inspected by the Contractor prior to the commencement of Work. Any Site conditions noted that may interfere with completion of Services are to be reported to the Client Representative.
 1. The Contractor is not to commence Work until any issues or encumbrances have been dealt with and notice has been given from the Client Representative.

3.2 Equipment and Vehicles

- .1 The Contractor's equipment and vehicles shall meet all federal, provincial and/or Town standards & regulations as applicable.
- .2 All vehicles will be equipped with a spill kit in order to safely contain and remove any spills.

3.3 Personal Protective Equipment (PPE)

- .1 All Contractor Personnel on Site must wear Personal Protective Equipment (PPE) as follows:

1. CSA approved head protection;
 2. CSA approved eye protection;
 3. High visibility clothing with retro reflective stripes;
 4. CSA approved foot protection;
 5. Traffic protection measures, signs, and channelizing devices;
 6. Fall protection and support equipment for tree climbers;
 7. CSA approved hearing protection;
 8. Chainsaw pants and gloves;
 9. CSA approved flame retardant clothing for work around energized conductors;
 10. Industry-standard class of insulated gloves for work around energized conductors.
- .2 The Contractor must ensure that all personnel understand and adhere to the Arborist Industry Safe Work Practices, Current Edition.

3.4 Traffic Controls

- .1 The Contractor is responsible for the set-up, maintenance, operation, and breakdown of all necessary traffic control devices.
- .2 The Contractor must abide by Regulation 851 and Traffic Control regulation 145/100, including:
1. A Traffic Control Plan for the operation must be approved by the Client Representative.
 2. Once completed and approved, the Traffic Control Plan must be communicated to all Site Workers and kept in vehicle for inspection by the Ministry of Labour.
 3. Traffic Control Manual for Roadway Work Operations – field edition must be kept in vehicle;
 4. Reflective traffic cones must be kept in vehicle and used when required.

3.5 Clearing

- .1 All work shall be carried out in a professional manner with minimal disturbance to the surrounding area.
- .2 Cut all existing vegetation as per the drawing.
- .3 No climbing gaffs (spurs/spikes) are to be used on any live trees that are to remain.

- .4 No trees shall be climbed. In lieu of climbing, aerial devices, cranes, lifts, and other methods as approved by the Contract Administrator may be used.
- .5 Where trees cannot be felled without danger to traffic (pedestrian and/or vehicular), property or other vegetation to remain, they shall be cut in sections from the top of the tree down.
- .6 Cut off unsound branches overhanging areas cleared at no extra cost.

3.6 Grubbing

- .1 Grub out entire root system of existing trees that are cleared.
- .2 Grub out visible rock fragments and boulders, greater than 300mm in greatest dimension, but less than 0.25 m³.

3.7 Removal and Disposal

- .1 The Contractor shall comply with the requirements of the Ministry of the Environment, Town, Region, and any other authority having jurisdiction.
- .2 The Contractor shall be responsible for the removal of all felled materials and debris off-site and at no additional cost to the Town.
- .3 Materials and debris shall not block driveways, sidewalks or impede vehicular or pedestrian traffic in any way.
- .4 Materials and debris shall not be left on or along municipal boulevards. Any complaints from residents will be documented by the Contractor.
- .5 Only trained and qualified personnel may operate a chipper. Operators are to refer to Work Practices for Brush Chipper Operation in the Arborist Industry Safe Work Practices Manual.
 - 1. The Contractor must ensure that all guards are in place and in good condition.
 - 2. Chipping is to occur in an uninterrupted direction of the chipper and associated vehicle.
 - 3. During chipping operations, ensure that all surplus staff are clear of work area.
- .6 Open burning of any material is not permitted.

3.8 Finished Surface

- .1 Leave ground surface in condition suitable to immediate construction and/or grading operations.

3.9 Inspection of Completed Work

- .1 When the Contractor is satisfied that the Services have been completed, notice is to be given the Contract Administrator.
- .2 The Contract Administrator will arrange and conduct inspections of all completed Work to ensure compliance.
- .3 All deficiencies that are found must be corrected by the Contractor within five (5) business days of receiving notification of the deficiency.

END OF SECTION

PART 1 - GENERAL

1.1 General Requirements

- .1 The General Requirements, Bid Form, Instructions to Bidders, Bid Policies, Special Provisions, The Agreement and the Contract Drawings shall form part of this specification in the same manner as if they were recited in full herewith.
- .2 Refer to other Specifications in these Documents to determine their effect upon the work of this section.

1.2 Work Included

- .1 The Contractor is to coordinate with the Town's Geotechnical Consultant for the quality control and materials inspection and testing. The cost of coordination with the Geotechnical Consultant (OH&P) is to be included in the Contractor's bid.
- .2 The Geotechnical Consultant shall conduct site visits including inspections, photographic documentation, testing and reporting.
- .3 The Geotechnical Consultant shall prepare, administer, and distribute reports for all tests in a timely manner and immediately notify the Contractor and Client Representative of any concerns.
- .4 The cost of the following quality control and materials inspection and testing shall be paid for by the Town:
 - Compaction testing for sub-grade, granular and asphalt.
 - Concrete strength testing.
- .5 The cost of all other required tests shall be borne by the Contractor.
- .6 The Contractor is responsible to conduct any testing required to dispose of soil and provide proof of suitability for any imported soil.

1.3 Related Sections

- .1 Geotechnical Report – Provided in Appendices
- .2 Section 02310 – Rough Grading
- .3 Section 02315 – Excavating, Trenching, Backfilling
- .4 Section 02470 – Asphalt Paving
- .5 Section 02920 – Landscape Topsoil and Finish Grading
- .6 Section 03300 – Concrete

1.4 References

- .1 OPSS 206 – Grading
- .2 OPSS 401 – Trenching, Backfilling, and Compacting
- .3 OPSS 501 – Compacting

- .4 OPSS 802 – Topsoil
- .5 OPSS 1004 – Aggregates (Miscellaneous)
- .6 OPSS 1010 – Aggregates (Base, Subbase, Select Subgrade, & Backfill Material)
- .7 O. Reg. 406/19: On Site and Excess Soil Management

1.5 Quality Assurance

- .1 The Geotechnical Consultant shall be a qualified Professional Engineer (P.Eng.) specializing in Geo-Environmental Services and be approved by the Town.

1.6 Submittals

- .1 The Geo-Technical Consultant shall provide the Owner, Client Representative and Contractor with the following information for each report:
 - Project Name, Location, Client and Contractor;
 - Report and Test No.#;
 - Date and time of visit;
 - Weather conditions and temperature;
 - Evaluated and reviewed by;
 - Field Information and In-Situ Density Summary Sheet(s), e.g. Material Description, Test Method, Specified & In-Situ Compaction (%), In-Situ Density Detailed Test Report(s);
 - Grain Size Analysis Report(s) on all types of sand and granular materials used;
 - Material compliance and Proctor Moisture Density Relationship Report(s);
 - A legible sketch identifying areas tested;
 - Who the representative talked to on site and gave copy of the report to;
 - Equipment types on site related to the scope of work;
 - Provide recommendations for construction based on the testing results;
 - Granular base depth measurements.

PART 2 – PRODUCTS NOT USED

PART 3 – EXECUTION

3.1 Frequency of Testing

- .1 Frequency of testing shall depend on site construction progress.

- .2 The Contractor shall be responsible for clearly communicating site construction progress and coordinating the timing of the Geotechnical Consultant's services.
- .3 It is intended that the Geotechnical Consultant shall perform multiple location reviews / tests per visit.

END OF SECTION

PART 1 - GENERAL

1.1 General Requirements

- .1 The General Requirements, Bid Form, Instructions to Bidders, Bid Policies, Special Provisions, The Agreement and the Contract Drawings shall form part of this specification in the same manner as if they were recited in full herewith.
- .2 Refer to other Specifications in these Documents to determine their effect upon the work of this section.

1.2 Work Included

- .1 The Contractor is to supply all necessary labour, materials, tools, services, and incidentals to supply and install the specified rough grade as shown on the drawings and as specified herein.

1.3 Related Sections

- .1 Section 02315 – Excavating, Trenching, Backfilling
- .2 Section 02920 – Landscape Topsoil and Finish Grading

1.4 References

- .1 OPSS 206 – Grading
- .2 OPSS 401 – Trenching, Backfilling, and Compacting

1.5 Testing and Inspection

- .1 Make work available for testing at any time and suspend construction if so directed by the Client Representative until test results are available.

1.6 Protection

- .1 Locate and protect from damage; services, utilities, structures, walks, paving, and adjacent grades encountered on the owner's property and property adjacent to the place of work. Obtain direction of Client Representative before moving or otherwise disturbing utilities or structures.
- .2 Locate and protect all buried services. The Contractor shall be held responsible for all damages to utilities and structures resulting from their work.
- .3 Erect warning signs and protective barriers in accordance with all applicable regulations.

- .4 Protect all excavations from freezing and water. Supply and operate as many pumps or other dewatering devices as are necessary to keep excavations free of water at all times.
- .5 Size, depth and location of existing utilities and structures as indicated are for guidance only. Completeness and accuracy are not guaranteed.
- .6 Protect work to remain against damage. Repair or replace damaged work at no additional cost to the owner.

PART 2 - PRODUCTS

2.1 Materials

- .1 Native & Imported Material: Shall be approved by the Client Representative. All material shall be free from frozen lumps, cinders, ashes, refuse, vegetable or organic matter, rocks, and boulders over 75 mm in any dimension, and other deleterious material. Native and imported material shall conform to OPSS 401.

PART 3 - EXECUTION

3.1 Removal of Topsoil

- .1 Strip topsoil to its full natural depth in all areas to be paved and/or bear structures unless otherwise directed.
- .2 Strip topsoil - in quantities required for re-use on site - from all areas to be cut or filled unless otherwise directed.
- .3 Strip topsoil when dry enough to prevent contamination with subgrade materials. Do not mix topsoil with subsoil.
- .4 Do not handle topsoil in frozen or wet condition.
- .5 Stockpile topsoil on site where directed. Piles not to exceed 2 m height unless otherwise directed.
- .6 At the Contractor's expense, stockpile surplus topsoil material suitable for re-use in Phase 2 limits, as directed by the Client Representative.
- .7 At the Contractor's expense, remove unsuitable surplus topsoil material off site and in accordance with Section 02315 – Excavating, Trenching, Backfilling and O. Reg 406/19: On-Site and Excess Soil Management.

3.2 Rough Grading

- .1 Rough grade to levels, profiles and contours allowing for surface treatment as indicated on drawings.

- .2 Rough grade to specific depths below finish grade as indicated on drawings.
- .3 Place fill material in maximum 150 mm lifts.
- .4 Slope rough grade away from buildings.
- .5 Grade slopes for landscape areas to a maximum of 4:1 unless otherwise specified on drawings.
- .6 Grade ditches and swales to depths indicated on drawings. Ensure gradient transitions are smooth and drain in the direction indicated on drawings.
- .7 Prior to placing fill over existing ground, scarify surface to depth of 150 mm. Maintain fill and existing surface at approximately same moisture content to facilitate bonding.
- .8 Compact filled and disturbed areas to maximum dry density to ASTM D698, as follows:
 1. 85% under landscaped areas
 2. 98% under paved and walkway areas
 3. As otherwise specified in the soils report or indicated on drawings.
- .9 Do not disturb soil at top of watercourse bank slopes or within drip line of trees and shrubs to remain.
- .10 Finished subgrade surface to be free of debris or stones larger than 50 mm diameter.
- .11 At the Contractor's expense, stockpile surplus fill material suitable for re-use in Phase 2 limits, as directed by the Client Representative.
- .12 At the Contractor's expense, remove unsuitable surplus fill material off site and in accordance with Section 02315 – Excavating, Trenching, Backfilling and O. Reg 406/19: On-Site and Excess Soil Management.

3.3 Finish Rough Grading

- .1 Finish rough grade using bulk fill material required to complete the works of this Contract.
- .2 Under areas to be paved, under all structures and at any other locations specifically shown on the drawings or details, the subgrade shall be compacted to a minimum dry density of 98% Standard Proctor Density (unless otherwise stated in the Geotechnical Report) and evidence shall be provided for the required compaction.

- .3 Uniform slopes shall be constructed between points for which finished grades or contours are shown. Existing grades shall be met and blended in, in a smooth manner, 2% minimum slope away from buildings.
- .4 Establish and maintain sub-grade parallel to the proposed finished grade and shape to allow adequate surface run-off and prevent ponding, scouring and erosion. If directed by the Client Representative, the Contractor shall provide temporary relief, or diversionary swales and ditches at no additional cost to the Owner.
- .5 Finish rough grading shall not be done when soil is frozen or wet.
- .6 In all areas where fill is to be placed on the existing grade, the surface shall be scarified to a minimum depth of 75 mm in order to provide a good bond and prevent slipping of fill or topsoil.

3.4 Clean-Up

- .1 Do final cleaning upon completion of work of this Section.

END OF SECTION

PART 1 - GENERAL

1.1 General Requirements

- .1 The General Requirements, Bid Form, Instructions to Bidders, Bid Policies, Special Provisions, The Agreement and the Contract Drawings shall form part of this specification in the same manner as if they were recited in full herewith.
- .2 Refer to other Specifications in these Documents to determine their effect upon the work of this section.

1.2 Definitions

- .1 Excavation Classes: two classes of excavation will be recognized; common excavation and rock excavation:
 1. Rock: any solid material in excess of 0.25m³ and which cannot be removed by means of mechanical excavating equipment having a 0.95 m³ to 1.15m³ bucket. Frozen material not classified as rock.
 2. Common Excavation: excavation of materials of whatever nature, which are not included under definitions of rock excavation.
- .1 Unclassified Excavation: excavation of deposits of whatever character encountered in work.
- .2 Topsoil: material capable of supporting good vegetative growth and suitable for use in top dressing, landscaping and seeding.
- .3 Waste Material: excavated material unsuitable for use in work or surplus to requirements.
- .4 Borrow Material: material obtained from locations outside area to be graded and required for construction of fill areas or for other portions of work.
- .5 Unsuitable Materials:
 1. Weak and compressible materials under excavated areas.
 2. Frost susceptible materials under excavated areas.
- .6 Coarse Grained Soils: containing more than 20% by mass passing 0.075 mm sieve.
- .7 Receiving Facility: MECP licensed receiving, recycler, disposal, and/or landfill site
- .8 MECP Table 9.1 Excess Soil Quality Standards: Full depth excess soil quality standards for use within 30 metres of a water body in a non-potable ground water condition, (Volume Independent),

Residential/Parkland/Institutional Property Use, as outlined in O. Reg. 406/19, *Rules for Soil Management and Excess Soil Quality Standards*, Appendix 1.

- .9 MECP Table 9.1 Leachate Screening Levels: Leachate screening levels for full depth excess soil for use within 30 metres of a water body in a non-potable ground water condition, (Volume Independent), Residential/Parkland/Institutional Property Use, as outlined in O. Reg. 406/19, *Rules for Soil Management and Excess Soil Quality Standards*, Appendix 2.

1.3 Abbreviations

- .1 OPSS for Ontario Provincial Standard Specification.
- .2 MECP for Ontario Ministry of Environment, Conservation and Parks
- .3 QP for Qualified Person, as defined in section 5 of O. Reg. 153/04 of the Environmental Protection Act
- .4 O. Reg. 153/04: Ontario Regulation 153/04, Records of Site Condition, Part XV.1 of the Act
- .5 O. Reg. 406/19: Ontario Regulation 406/19, On-Site and Excess Soil Management

1.4 Work Included

- .1 The Contractor is to supply all necessary labour, materials, tools, services, and incidentals to supply and install the specified excavating, trenching, and backfilling as shown on the drawings and as specified herein.

1.5 Related Sections

- .1 Section 02310 – Rough Grade
- .2 Section 02920 – Landscape Topsoil and Finish Grading

1.6 References

- .1 OPSS 401 – Trenching, Backfilling, and Compacting
- .2 OPSS 1001, Aggregates - General
- .3 OPSS 1004, Aggregates - Miscellaneous
- .4 OPSS 1010, Aggregates – Base, Subbase, Select Subgrade, and Backfill Material
- .5 OPSS 1359 – Unshrinkable Backfill

- .6 CAN/CHSB 8.1-88 – Sieves Testing, Woven Wire, Inch Series
- .7 Current CAN/CHSB 8.2 – Sieves Testing, Woven Wire, Metric
- .8 ASTM D698-12 – Standard Test Methods for Laboratory Compaction Characteristics of Soil Using Standard Effort.

1.7 Site Examination

- .1 Verify all site conditions which may affect the performance of this section.
- .2 Report in writing all conditions which may adversely affect the work of this section.
- .3 Commencement of the work implies acceptance of all surfaces and site conditions. No claims for damages or extras after commencement of the work will be accepted, except where such damages or extras are due to conditions which could not be determined prior to construction.

1.8 Testing and Inspection

- .1 Testing of materials and compaction will be carried out by testing laboratory approved by the Town. Frequency of tests will be determined by the Client Representative
 - 1. Testing to be coordinated by the Contractor.
 - 2. Independent Inspection / Testing Agency to bill the Town directly for their work
- .2 Contractor is responsible to conduct any testing required to dispose of soil and provide proof of suitability for any imported soil.
- .3 All environmental testing shall be completed in accordance with O. Reg. 153/04, as amended. All environmental samples shall be submitted to a laboratory accredited with the Canadian Association for Laboratory Accreditation (CALA) for analysis.

1.9 Protection

- .1 Locate and protect from damage; services, utilities, structures, walks, paving, and adjacent grades encountered on the owner's property and property adjacent to the place of work. Obtain direction of Client Representative before moving or otherwise disturbing utilities or structures.
- .2 Locate and protect all buried services. The Contractor shall be held responsible for all damages to utilities and structures resulting from his work.

- .3 Erect warning signs and protective barriers in accordance with all applicable regulations.
- .4 Protect all excavations from freezing and water. Supply and operate as many pumps or other dewatering devices as are necessary to keep excavations free of water at all times.
- .5 Do not disturb soil within the branch spread of existing trees or shrubs that are designated for preservation or on adjacent property. Where excavation necessitates root or branch cutting, do so only in accordance with Section 02104 - Shrub and Tree Preservation.
- .6 Size, depth and location of existing utilities and structures as indicated are for guidance only. Completeness and accuracy are not guaranteed.
- .7 Protect work to remain against damage. Repair or replace damaged work at no additional cost to the owner.

1.10 Disposal Sites

- .1 Contractor is responsible for identifying and selecting appropriate haulers and receiving facilities, as required, to complete the work of this Contract. Requirements and documentation for facilities to comply with O. Reg. 406/19: Ontario Regulation 406/19, On-Site and Excess Soil Management.
- .2 Contractor is responsible for all arrangement with haulers and receiving facilities including environmental testing that may be required by a receiving facility.
- .3 Contractor is responsible for obtaining written confirmation from the receiving facilities accepting surplus or unsuitable excavated material, including a complete Environmental Compliance Approval or Certificate of Authorization, as may be required. The written confirmation must clearly state that the Contractor, the Town, and their agents are unconditionally released from further obligation
 1. The Contractor shall submit in writing to the Client Representative, at least one week prior to commencing site work, a letter listing the names of the of receiving sites along the written confirmation from the receiving sites.
- .4 Contractor is responsible for retaining a QP, as required, to complete the work of this contract.

PART 2 - PRODUCTS

2.1 Materials

- .1 19 mm Clear Stone: Clean, hard, durable crushed gravel or stone, free from shale, clay, friable materials, organic matter and other deleterious substances with physical properties and gradation to conform to OPSS 1004, Clear Stone Type I.
- .2 Granular 'A': Clean, hard, durable crushed gravel or stone, free from shale, clay, friable materials, organic matter and other deleterious substances with physical properties and gradation to conform to OPSS 1010.
- .3 Granular 'B': Clean, hard, durable crushed gravel or stone, free from shale, clay, friable materials, organic matter and other deleterious substances with physical properties and gradation to confirm to OPSS 1010, Granular B Type I and Type II.
- .4 Where Granular 'B' is used for granular backfill for pipe sub-drains, 100% of the material shall pass the 37.5 mm sieve.
- .5 Native & Imported Material: Shall be approved by the Client Representative. All material shall be free from frozen lumps, cinders, ashes, refuse, vegetable or organic matter, rocks, and boulders over 75 mm in any dimension, and other deleterious material. Native and imported material shall conform to OPSS 401.
 1. Imported material: Shall meet MECP Table 9.1: Excess Soil Quality Standards and Leachate Screening Levels. It is the responsibility of the Contractor to either undertake or obtain a soil quality letter report that demonstrates the imported material meets the applicable site condition standards and is suitable for re-use at the site. This soil quality letter shall include a copy of the analytical data for the imported material and must be signed by a QP.

PART 3 - EXECUTION

3.1 General Use of Materials

- .1 Use appropriate materials as specified under section of work. If not specified under Section, refer to Construction Drawings.
 1. 6 mm Clear Stone: in sports field sub-drain trenches.
 2. Granular 'A': to be used as base under areas to be paved, and to backfill unstable areas in existing sub-grade, or as a base for built structures, subject to the Client Representative's approval.

3. Granular 'B': to be used as sub-base under areas to be paved, and to backfill unstable areas in existing sub-grade, subject to the Client Representative's approval.
4. Native and Imported Material: to be used under areas intended for sodding, seeding and other "soft" landscaping, subject to the Client Representative's approval.
5. Stockpile fill materials in areas approved by Client Representative. Stockpile granular materials in manner to prevent contamination.

3.2 Site Preparation

- .1 Remove obstructions, ice, and snow, from surfaces to be excavated within limits indicated.
- .2 Cut pavement or sidewalk neatly along limits of proposed excavation in order that surface may break evenly and cleanly.

3.3 Excavation and Trenching

- .1 Advise Client Representative in advance of excavation operations to enable original cross sections to be taken.
- .2 The Contractor shall carefully excavate to the elevations and dimensions indicated or required for the construction of the work.
- .3 Excavation must not interfere with normal 45-degree splay of bearing from bottom of any footing.
- .4 For trench excavation, unless otherwise authorized by Client Representative in writing, do not excavate more than 30 m of trench in advance of installation operations and do not leave open overnight.
- .5 Keep excavations free of water while work is in progress and protect open excavations against flooding and damage due to surface run-off.
- .6 Dispose of surplus and unsuitable excavated material off site at an approved Receiving Facility.
- .7 Earth bottoms of excavations to be undisturbed soil, level, free from loose, soft, or organic matter.
- .8 Where bearing capacity of sub-soil appears to be insufficient, the Contractor shall obtain the written approval of the Geotechnical Engineer before doing any further work.

- .9 All excavations shall be sufficiently shored and braced to prevent caving-in and to adequately support existing structures, roads, services, and any other aspect of the work.
- .10 Obtain Client Representative approval of completed excavation.
- .11 Remove unsuitable material from trench bottom to extent and depth as directed by Client Representative.
- .12 Where required due to unauthorized over-excavation, correct as follows:
 1. Fill under bearing surfaces and footings with concrete specified for footings.
 2. Fill under other areas with Granular 'B' fill compacted to minimum SPD of 98%, as directed by Client Representative.
- .13 Hand trim, make firm and remove loose material and debris from excavations. Where material at bottom of excavation is disturbed, compact foundation soil to density at least equal to undisturbed soil. Clean out rock seams and fill with concrete mortar or grout in approval of Client Representative.

3.4 Hauling and Disposal

- .1 Haul all material designated for disposal in tarped/covered trucks, or other appropriate means.
- .2 Haul along municipally approved truck routes observing any seasonal weight restrictions.
- .3 Prevent hauled material from being spilled on the site of Works, streets, and roads, public or private property.
- .4 Disposal and hauling shall conform to all Provincial, Federal regulations, and Municipal legislation.
- .5 All vehicles used for haulage of disposal materials must have their current registration available for inspection by the Client Representative.
- .6 The Contractor will provide copies of tipping tickets or manifests for each truck with request for payment approval.
- .7 The Owner will assume no ownership of the disposed materials once removed from the site.
- .8 Remove surplus material off site at Contractor's expense and in accordance with O. Reg 406/19: On-Site and Excess Soil Management.

3.5 Fill Types and Compaction

- .1 Use fill of types as indicated or specified above. Compaction densities are percentages of maximum densities obtained from ASTM D698-78.

3.6 Backfilling

- .1 Do not proceed with backfilling operations until the Client Representative has inspected and approved installations and has provided written approval of backfill material to be used
 1. At least 5 days prior to any imported material being brought to the site, the Contractor shall provide the Client Representative with the soil quality letter report.
- .2 Ensure that all areas to be backfilled are free of debris, snow, ice, water, frozen ground, organic matter, or other deleterious substances.
- .3 Do not use backfill material which is frozen or contains ice, snow, or debris.
- .4 Place backfill material in uniform layers not exceeding 150 mm compacted thickness, up to grades indicated. Compact each layer to 95% SPD before placing succeeding layer.
- .5 Backfilling around installations:
 1. Place bedding and surround material as specified elsewhere.
 2. Do not backfill around or over cast-in-place concrete within 24 hours after placing.
 3. Place backfill simultaneously on either side of structures, walks, etc., to equalize soil pressures.
 4. Where temporary unbalanced earth pressures are liable to develop on walls or other structures:
 - .1 Permit concrete to cure for minimum 14 days or until it has sufficient strength to withstand earth and compaction pressures and obtain approval from Client Representative.
 5. Place material by hand under, around and over installations until 600mm of cover is provided. Dumping material directly on installations will not be permitted.
 6. Install drainage and filter system in backfill as indicated on drawings.

7. Place backfill material in continuous horizontal layers not exceeding 150 mm in depth and compact filled and disturbed areas to minimum Standard Proctor Density of 85% under planted or grassed areas and 98% under walks and paved areas (unless otherwise noted in the Geotechnical Report).

3.7 Restoration

- .1 Upon completion of work, remove surplus materials and debris, trim slopes, and correct defects as directed by Client Representative.
- .2 Replace topsoil as indicated.
- .3 Reinstall lawns and plantings to elevation and condition which existed before excavation.
- .4 Reinstall pavements and sidewalks disturbed by excavation to thickness, structure, and elevation which existed before excavation.
- .5 Clean and reinstall areas affected by work as directed by Client Representative.

END OF SECTION

PART 1 **GENERAL**

1.1 **RELATED WORK**

- .1 Section 01330 - Submittals
- .2 Section 01770 - Closeout Procedures.
- .3 Section 02315 – Excavating, Trenching and Backfilling.

1.2 **REFERENCES**

- .1 American Society for Testing and Materials International, (ASTM)
 - .1 ASTM B745/745M, Standard Specification of Corrugated Aluminum Pipes for Sewers and Drains.
 - .2 ASTM D3034, Standard Specification for Type PSM Poly (Vinyl Chloride) (PVC) Sewer Pipe and Fittings.
- .2 Canadian General Standards Board (CGSB). CSA B137, Thermoplastic Pressure Piping Compendium.
- .3 Canadian Standards Association (CSA International)
 - .1 CAN/CSA-A3000, Cementitious Materials Compendium (Consists of A5-98, A8-98, A23.5-98, A362-98, A363-98, A456.1-98, A456.2-98, A456.3-98).
 - .1 CAN/CSA-A5, Portland Cement.
 - .2 CSA B1800, Plastic Non-pressure Pipe Compendium - B1800 Series (Consists of B181.1, B181.2, B181.3, B181.5, B182.1, B182.2, B182.4, B182.6, B182.7, B182.8 and B182.11).
 - .1 CSA B182.2, PVC Sewer Pipe and Fittings (PSM Type).
 - .2 CSA B182.8, Polyethylene (PE) Storm Sewer and Drainage Pipe and Fittings
- .4 Ontario Provincial Standard Specifications (OPSS)
 - .1 OPSS Sections 401, 403, 405, 409, 410, 412, MUNI 1841

1.3 **DEFINITIONS**

- .1 Pipe section is defined as length of pipe between successive manholes and/or between manhole and any other structure which is part of sewer system.

1.4 **SUBMITTALS**

- .1 Submit shop drawings in accordance with Section 01330 – Submittals.
- .2 Inform Contract Administrator at least 4 weeks prior to beginning Work, of proposed source of bedding materials and provide access for sampling.
- .3 Submit manufacturer's test data and certification at least 2 weeks prior to beginning Work.
- .4 Ensure certification is marked on pipe.

1.5 DELIVERY, STORAGE AND HANDLING

- .1 Deliver, store and handle materials in accordance with Section 01610 - Product Requirements.

PART 2 PRODUCTS

2.1 STORM SEWERS

- .1 HDPE to CSA B182.8, Pipe stiffness minimum 320 kPa. Pipe joints to be soil tight. Pipe to be non-perforated.

2.2 PIPE BEDDING, COVER, AND SURROUND MATERIAL

- .1 Granular 'A' as per OPSS.MUNI 1010 and Section 31 23 33 – Excavating, Trenching, and Backfilling.

2.3 BACKFILL MATERIAL

- .1 Select Subgrade material to OPSS.MUNI 1010.

PART 3 EXECUTION

3.1 PREPARATION

- .1 Clean and dry pipes and fittings before installation.
- .2 Obtain approval of pipes and fittings from Contract Administrator prior to installation.

3.2 TRENCHING

- .1 Do trenching Work in accordance with Section 31 23 33 - Excavating, Trenching and Backfilling.
- .2 Do not allow contents of any sewer or sewer connection to flow into trench.
- .3 Trench alignment and depth require approval of Contract Administrator prior to placing bedding material and pipe.

3.3 GRANULAR BEDDING

- .1 Place bedding in unfrozen condition.
- .2 Place granular bedding materials in uniform layers not exceeding 150 mm compacted thickness to depth indicated.
- .3 Shape bed true to grade and to provide continuous, uniform bearing surface for pipe.
- .4 Shape transverse depressions as required to suit joints.
- .5 Compact each layer full width of bed to at least 95% of Standard Proctor Maximum Dry Density (SPMDD).

- .6 Fill excavation below bottom of specified bedding adjacent to manholes or structures with compacted bedding material.

3.4 PIPE INSTALLATION

- .1 Lay and join pipes in accordance with manufacturer's recommendations and to approval of Contract Administrator.
- .2 Lay pipes on prepared bed, true to line and grade, with pipe invert smooth and free of sags or high points. Ensure barrel of each pipe is in contact with shaped bed throughout its full length. Tolerances: 3mm in 3 m.
- .3 Do not exceed maximum joint deflection recommended by pipe manufacturer.
- .4 Do not allow water to flow through pipe during construction, except as may be permitted by Contract Administrator.
- .5 Make watertight connections to manholes/catchbasins using non-shrink grout when suitable gaskets are not available.

3.5 PIPE SURROUND AND COVER

- .1 Place surround material in unfrozen condition.
- .2 Hand place surround material in uniform layers not exceeding 200 mm compacted thickness as indicated. Do not dump directly on pipe.
- .3 Place layers uniformly and simultaneously on each side of pipe.
- .4 Install insulation as indicated on Contract Drawings.

3.6 BACKFILL

- .1 Place backfill material in unfrozen condition.
- .2 Place backfill material, above pipe surround in uniform layers not exceeding 300 mm compacted thickness up to grades as indicated. Backfill material is to be compacted to at least 95% of SPMDD.

3.7 FIELD TESTING OF SEWERS

- .1 Repair or replace pipe, pipe joint or bedding found defective.
- .2 When directed by Contract Administrator, draw metal mandrel 95% of inside diameter of pipe through sewer to ensure pipe is free of obstructions or deflections.
- .3 Carry out CCTV camera inspection on each section of sewer.
- .4 Provide colour digital video (DVD) inspection for sewers (2 copies of video and report). Report to document condition of sewer to satisfaction of Contract Administrator. Cost of inspection to be paid by Contractor.
- .5 Repair and retest sewer sections as required, until test results are acceptable.

- .6 Repair visible leaks regardless of test results.
- .7 Obtain a letter of compliance from Municipality and submit to Contract Administrator.

END OF SECTION

PART 1 - GENERAL

1.1 General Requirements

- .1 The General Requirements, Bid Form, Instructions to Bidders, Bid Policies, Special Provisions, The Agreement and the Contract Drawings shall form part of this specification in the same manner as if they were recited in full herewith.
- .2 Refer to other Specifications in these Documents to determine their effect upon the work of this section.

1.2 Work Included

- .1 The Contractor is to supply all necessary labour, materials, tools, services, and incidentals to supply and install the specified asphalt pathways as shown on the drawings and as specified herein.

1.3 Related Sections

- .1 Section 02310 – Rough Grading
- .2 Section 02920 – Landscape Topsoil and Finish Grading

1.4 References

- .1 OPSS 310 – Hot Mix Asphalt
- .2 OPSS 311 – Asphalt Sidewalk, Driveway, and Boulevard and for Sidewalk Resurfacing
- .3 OPSS 1001 – Aggregates – General
- .4 OPSS 1003 – Aggregates – Hot Mix Asphalt
- .5 OPSS 1004 – Aggregates – Miscellaneous
- .6 OPSS 1010 – Aggregates – Base, Subbase, Select Subgrade and Backfill Material
- .7 OPSS 1150 – Hot Mix Asphalt

1.5 Site Examination

- .1 Verify all site conditions which may affect the performance of this section.
- .2 Report in writing all conditions which may adversely affect the work of this section.
- .3 Commencement of work implies acceptance of all surfaces and site conditions. No claims for damages or extras after commencement of the work will be accepted, except where such

damages or extras are due to conditions which could not be determined prior to construction.

1.6 Protection

- .1 Protect and maintain completed paving from time of installation until acceptance of work.
- .2 Keep areas clean and neat at all times.
- .3 Project must comply with Health and Safety, WSIB, Ontario Traffic Control Plan, and a Registered Notice of Project.

1.7 Testing and Inspection

- .1 Make work available for testing at any time and suspend construction if so directed by the Client Representative until test results are available.
- .2 Inspection and testing of asphalt pavement will be carried out by an approved CCIL Type B Certified testing agency.
- .3 Quality Assurance costs associated with testing will be paid by the Owner. Refer to Section 02300 – Materials Inspection and Testing.
- .4 If Quality Assurance testing fails and additional Quality Control testing is required, it will be paid by the Contractor.
- .5 All HMA testing shall conform to OPS 310.08
- .6 Testing shall include sub-grade, granular base, and asphalt compaction and material composition of the granular base and asphalt material.

1.8 Warranty

- .1 The Contractor shall warranty all material and workmanship for a period of two (2) years from the date of Preliminary Acceptance / Substantial Performance.

PART 2 - PRODUCTS

2.1 Materials

- .1 Granular 'A': Clean, hard, durable crushed gravel or stone, free from shale, clay, friable materials, organic matter and other deleterious substances with physical properties and gradation to conform to OPSS 1010.
- .2 Granular 'B': Clean, hard, durable crushed gravel or stone, free from shale, clay, friable materials, organic matter and other

deleterious substances with physical properties and gradation to confirm to OPSS 1010, Granular B Type I and Type II.

- .3 Hot Mix Asphalt – Refer to Geotechnical Report; maximum aggregate size, physical properties and gradation to conform to OPSS.

PART 3 - EXECUTION

3.1 Sub-Grade Preparation

- .1 Prepare sub-grade for conformity with elevations and sections before placing granular. Refer to OPS 310.07.02.01
- .2 Have the Client Representative approve the sub-grade prior to commencement. The Contractor is responsible for informing and scheduling of the Geotechnical Engineer. Approval of sub-grade does not relieve Contractor of their responsibilities.
- .3 Proof roll graded sub-grade surface with roller of approved mass and type.
- .4 Check for unstable areas.
- .5 Check for areas requiring additional compaction.
- .6 Notify the Geotechnical Engineer and Client Representative of any unsatisfactory conditions.
- .7 Suspend operations whenever required to allow soil compaction testing laboratory access to site.
- .8 Paving operations shall not be carried out if the roadbed is frozen.

3.2 Sub-Grade Rectification

- .1 Excavate soft and unstable areas in sub-grade and backfill with approved clean granular fill as directed by the Client Representative.
- .2 Place fill in layers of 150mm maximum depth. Compact to 95% Standard Proctor Density (or as identified in the Geotechnical Report) before placing subsequent layers.

3.3 Layout and Preparation

- .1 Stake out asphalt walkways to the dimensions, lines and levels indicated and to Client Representative's approval.
- .2 Do not start work until layout has been approved by the Client Representative. Any changes to the layout must be submitted to the Client Representative as "As-Built Revised Drawings."

- .3 Stake out edges of paving in a straight continuous line, blending smoothly with curves staked out to the specified radii.
- .4 Install temporary forms, where necessary, sufficiently braced, to withstand the stress of placing and compacting asphalt and to maintain true alignment.

3.4 Granular Base

- .1 Place granular course to the full compacted width and depth indicated.
- .2 Compact to a minimum of 100% Standard Proctor Density.
- .3 Trim granular surface to a smooth even plane parallel to finished asphalt surface.
- .4 Finished base surface to be within ± 10 mm of specified grade, but not uniformly high or low.

3.5 Asphalt Paving

- .1 Install asphalt surfacing in strict accordance with OPSS 311 and as detailed.
- .2 All materials, equipment, and methods of mixing, hauling, handling, spreading, and rolling shall meet the requirements of OPSS 1150.
- .3 Clean and maintain granular base surface free of dirt and other foreign material. All paving area must be clear of standing water.
- .4 Install temporary forms, where necessary, in order to maintain straight continuous edges of asphalt and smooth curves where shown.
- .5 Where new asphalt is to meet existing asphalt cut back the existing surface to its full depth by means of mechanical sawing/cold milling equipment suitable of making a clean, sharp cut and leaving a perfect edge.
- .6 Place asphalt binder course(s) only when the temperature at the road surface is 2° C minimum and rising. Suspend paving operations when the temperature drops below the minimum specified above. Refer to OPS 310.07.06.
- .7 Place asphalt surface course(s) only when the temperature at the road surface is 7° C minimum and rising. Suspend paving operations when the temperature drops below the minimum specified above. Refer to OPS 310.07.06.
- .8 Blend asphalt paving smoothly with existing surfaces.

- .9 All locations where new asphalt meets existing structures and paving (including existing asphalt) shall be considered a joint.
- .10 Make all joints in accordance with OPSS 310 and paint with a thin, uniform, continuous coating of joint-painting material SS-1 Emulsion.
- .11 Tack coat must be applied to all surfaces, and at the application rates specified prior to placing of HMA.
- .12 Prior to roller compaction, obvious defects in the HMA material placed shall be corrected. Irregularities in the alignment and grade along the outside edges shall be corrected.
- .13 Compaction of asphalt mixtures shall be carried out as soon as possible, after spreading of the mixture, as it will bear the roller without checking or undue displacement.
- .14 Start rolling, parallel to the centre line, at the lower side and proceed towards the centre of the pavement course, overlapping on successive trips by at least half the width of the rear wheel. Alternate trips of the roller shall be of slightly different lengths and shall be staggered.
- .15 Finishing rolling shall be accomplished with a minimum number of passes, producing a satisfactory surface.
- .16 Start finishing rolling longitudinally at the higher edge and proceed towards the lower edge.
- .17 Use hot tampers for hand tamping adjacent to curbs, catch basins, manholes and similar structures and in all areas which cannot be covered by the roller.
- .18 Where necessary, raise or lower existing catch basin covers, manhole covers and the like, to suit finished grades.
- .19 Finished pavement shall be smooth, true to line and level and free from depressions exceeding 6 mm as measured with a 3.0 m straight edge paralleling the centre line.
- .20 The temperature of the HMA immediately after the spreader and prior to rolling shall be not less than 120⁰ C
- .21 New surfacing shall blend smoothly and flush with existing surfaces, steps, tops of curbs, etc.
- .22 Low or defective areas shall be cut out immediately and replaced with fresh hot mixture, placed, and compacted to blend with surrounding areas and thoroughly bonded to it.
- .23 Hand tamp edges to smooth curves and straight sections as shown on drawings. Hand tamp edges to 45-degree angle.

- .24 Roller: Power driven, minimum mass of 4.5 tonnes, minimum wheel width 600 mm.
- .25 Finish surface smooth, uniform, without ridges and true to grade to within 6 mm and with no irregularities greater than 6 mm in 3 m length.

3.6 Joints

- .1 Saw-cut/cold milling of bituminous course to full depth in neat lines to expose fresh vertical surfaces. Remove broken and loose material.
- .2 Immediately prior to paving, apply a tack coat with a heavy brush to the joint between the asphalt paving and all manholes, catch basin frames, curbs, and similar items.
- .3 Use an approved bituminous emulsion such as type SS-1 or SS-1H as a tack coat. Place no more tack coat than can be covered in the same day's work.
- .4 Where paving comprises two courses, overlap longitudinal joints minimum 150mm.
- .5 Carefully place and compact hot asphalt against joints and hand tamp areas not accessible with conventional roller equipment.

3.7 Clean-Up

- .1 After completion of paving, remove and dispose of all debris. Clean all surfaces and structures which have been contaminated by paving work.

3.8 Field Quality Control

- .1 All depths of asphalt shown on the details shall be measured following compaction.
- .2 The minimum frequency for sampling and testing is the responsibility of the Contractor but shall be no less than the requirements specified in OPS 310 Table 6.
- .3 For Marshall mix design paving, samples shall be used to determine compliance to asphalt cement content, aggregate gradation, air voids, flow, void in mineral aggregate, and stability requirements.

END OF SECTION

PART 1 - GENERAL

1.1 General Requirements

- .1 The General Requirements, Bid Form, Instructions to Bidders, Bid Policies, Special Provisions, The Agreement and the Contract Drawings shall form part of this specification in the same manner as if they were recited in full herewith.
- .2 Refer to other Specifications in these Documents to determine their effect upon the work of this section.

1.2 Work Included

- .1 The Contractor is to supply all necessary labour, materials, tools, services and incidentals to supply and install the specified all weld construction of 1.5m height pickleball chain link fencing, 3.05m height tennis chain link fencing, and 3.05m height ball stop fencing as indicated on the drawings and specified herein.
- .2 The work of this section shall include the supply and installation of the following:
 1. Exterior chain link fabric fencing and posts as noted on the Drawings.
 2. Concrete footings for fencing line posts and terminal posts, complete with structural certification.
 3. Work includes supply and installation of all hinges, lockable latches and/or lockable throw bolts for all man gates and/or vehicular gates shown on the drawings as applicable.

1.3 Related Sections

- .1 Section 02315 – Excavating, Trenching, Backfilling
- .2 Section 02920 – Landscape Topsoil and Finish Grading
- .3 Section 03300 – Concrete

1.4 References

- .1 Ontario Provincial Standards, Volume 1, 2 and 3, (latest issue).
- .2 OPSS 772 – Chain Link Fence
- .3 OPSS 1541 – Chain Link Fence Components
- .4 CAN/CGSB 138.1-96 – Fabric for Chain Link Fence
- .5 CAN/CGSB 138.2-96 – Steel Framework for Chain Link Fence
- .6 CAN/CGSB 138.4-96 – Gates for Chain Link Fence

1.5 Quality Assurance

- .1 Fence fabrication and installation shall be done only by skilled workmen, with suitable machinery, supervised by foremen experienced in the type of works specified herein.
- .2 Execute the Works of this Contract with skilled tradesmen who have equipment adequate for the project and are known to have been responsible for satisfactory installations similar to that specified during a period of at least five (5) years, so that the works is performed expeditiously.
- .3 If so requested, the Contractor shall supply a fully finished sample of fence for approval by the Client Representative. Upon approval of these samples they must be kept in an accessible location on the site for comparison with the final installed fence. Installed fencing which is inconsistent in colour, finish or composition when compared with these panels shall be refinished or removed and replaced at no additional cost to the Owner.

1.6 Site Examination

- .1 Verify all site conditions which may affect the performance of this section.
- .2 Report in writing all conditions which may adversely affect the work of this section.
- .3 Commencement of work implies acceptance of all surfaces and site conditions. No claims for damages or extras after commencement of the work will be accepted, except where such damages or extras are due to conditions which could not be determined prior to construction.

1.7 Submittals

- .1 The Contractor shall provide shop drawings for fencing a minimum of one week prior to installation for approval by the Client Representative. Drawings shall show the general arrangement with proper details of all components necessary to complete installation. Include complete details of fence and gate construction (as applicable), weight, post spacing dimensions and unit weights of framework and concrete footing details (complete with structural certification).

1.8 Product Delivery, Storage and Handling

- .1 Be responsible for protection of surrounding conditions during installation of chain link fence.
- .2 Repair and make good at own cost all damages to surrounding conditions caused by the Works of this Section.

- .3 Store packaged material in original containers with all manufacturer's seals and labeling intact.
- .4 Prevent damage to materials during handling and storage. Keep materials under cover and free from dampness.

1.9 Warranty

- .1 The Contractor shall warranty all material and workmanship for a period of two (2) years from the date of Preliminary Acceptance / Substantial Performance.

PART 2 - PRODUCTS

2.1 Materials

- .1 All pipes, ties wires, tension wires and bands, connectors, fittings hinges, throw- bolts and/or latches and hardware to be hot-dipped galvanized and painted to match mesh.
- .2 Pipe: to CAN2-138.2 M80, Table 1 Medium Duty. Schedule 40 (wall thicknesses as shown below), standard continuous weld, modulus of elasticity 30,000.

Outside Pipe Dia.	Schedule 40	Wall Thickness
1-5/8 (43mm)	0.140"	(9/64")
1-7/8" (48mm)	0.145"	(19/128")
2-3/8" (60mm)	0.154"	(5/32")
2-7/8" (75mm)	0.203"	(13/64")
3-1/2" (89mm)	0.216"	(7/32")
4-1/2" (115mm)	0.237"	(15/64")
6" (150mm)	0.280"	(9/32")

- .3 Tension Bar: 16 x 5mm (3/4" x 3/16"), length to match entire height of fabric section.
- .4 Tie Wires: Shall be No 9 gauge (SWG) black vinyl coated tie wire.
- .5 Bottom Tension Wire: Not Applicable - provide bottom rail as per drawings.
- .6 Fence Fabric (Galvanized Steelwire Fabric): Shall be chain link, minimum No 6-gauge (SWG), woven in a 44.5 mm (1 3/4") mesh. Top and bottom salvage shall have a knuckled finish.
- .7 Concrete Footings: compressive strength as specified on details.

- .8 For pipe size/spacing and description for each location, refer to details.
- .9 Touch-up paint: zinc rich organic ready-mixed coating to CGSB-1-GP-181M.
- .10 Post Caps: Cone type galvanized steel or cast aluminium alloy designed to fit snugly over posts and exclude moisture. Tack weld firmly in place.

PART 3 - EXECUTION

3.1 Examination

- .1 Fence locations will be staked and reviewed by the Client Representative prior to commencement of any work.
- .2 Commence works upon verification that sub-grade densities, as specified, have been attained under fencing locations.
- .3 Contractor to ensure post footings are not in conflict with underground utilities.

3.2 Post Layout and Spacing

- .1 Post spacing to be as shown on drawings. Maximum post spacing to be 3m on-centre.
- .2 Set end posts of straight runs and adjust on centre spacing of line posts equally between. Set all terminal (end), line and gate posts plumb in concrete footings as detailed/specified herein.

3.3 Footings

- .1 Contractor to provide structural stamp and certification for all fence footings.
- .2 Excavate post holes to dimensions indicated on the drawings. Excavate for fence post footings using a machine powered auger of sufficient strength to penetrate soils found on the site.
- .3 Dispose of soil spoil by spreading over local sub-grade. In the event that the adjoining areas are topsoiled and/or sodded, dispose of spoil off-site. Costs for disposal on or off site, shall be included in the tendered price.
- .4 All footings shall be set relative to finished surfaces as detailed. Depress top of footing below finished grade and cover over with concrete mow strip as detailed.
- .5 Place concrete in post footings then embed posts centred into concrete to depths indicated.

- .6 Check and verify post alignments until cured. Immediately make corrections to any post found not to be plumb in all directions.
- .7 All posts shall be installed in footings for each section of fence before welding in the rails for that section.

3.4 Fence Construction

- .1 All fences shall be all welded construction. Weld all ends continuously to adjoining member. Grind all welds smooth.
 - 1. Cope all posts to accept top rail.
 - 2. Cope all mid braces and bottom rails to fit posts.
- .2 Cope all connections. No crimping or flattening will be permitted. Any connection not meeting this specification will be rejected and replaced with specified construction at the Contractor's expense.
- .3 All fences 2.4M (8') high or higher shall have horizontal mid rails installed continuous in all sections.

3.5 Tack Welding (Not Applicable on Vinyl Mesh)

- .1 Tack weld all tension bands and fence members.
- .2 Tack weld all gate hardware where appropriate (as applicable).

3.6 Tension Bands

- .1 Install tension bands where fabric terminates at all terminal, corner and gate posts. Tack weld as required.

3.7 Finished Painting

- .1 All posts, top rails, bottom rails, mid rails and post caps to match woven mesh.
- .2 Field applied touch-ups to the approval of the Client Representative.

3.8 Chain Link Fabric

- .1 Fence fabric shall not be installed until the concrete footings have cured for a minimum of five (5) days.
- .2 Place chain link fabric on the inside/play side of all areas to be enclosed or as directed by the Client Representative.
- .3 Place the fabric by securing one end, applying sufficient tension to remove all slack before making attachment elsewhere. Tighten the fabric to provide a smooth uniform appearance free from sag.

- .4 Cut the fabric by untwisting a picket and attach each span independently at all terminal posts. Use stretcher bars with tension bands at max. 380mm (15") intervals or any other approved method of attachment.
- .5 Install fence fabric 100mm (4") above ground level or as directed by the Client Representative. Clearance to be measured at the post locations. Intervals of tension bands not to exceed 380mm (15"). Fabric fastening to mid, bottom or top rails via tie wires/hog rings not to exceed 100mm.
- .6 Join rolls of wire fabric by weaving a single picket into the ends of the rolls to form a continuous mesh.

3.9 Replacement of Defective Works

- .1 Replace defective chain link fence as directed by the Client Representative.
- .2 Be responsible for the repair of all damages until inspected and approved by the Client Representative.
- .3 Costs associated with any required removals and replacement of defective workmanship shall be the Contractor's responsibility at no cost to the Owner

3.10 Cleaning

- .1 Review the place of work, rake, remove and dispose of all cut pieces of wire, ties, or discarded materials from the Site.
- .2 Concrete spills and discards shall be cleaned and removed without delay from work areas and any other surfaces from around the work site.
- .3 Clean and reinstate all areas disturbed by the operations of the Contractor, subtrades or supplier related to the work in this section, replacing damaged subgrade, surfacing, topsoil and/or sod to original finished condition to the approval of the Client Representative.
- .4 Any seeded / sodded areas which have been rutted, damaged or disturbed are to be repaired. The method of repair will be to the discretion of the Client Representative to ensure the site is restored to no less than original condition.

END OF SECTION

PART 1 - GENERAL

1.1 General Requirements

- .1 The General Requirements, Bid Form, Instructions to Bidders, Bid Policies, Special Provisions, The Agreement and the Contract Drawings shall form part of this specification in the same manner as if they were recited in full herewith.
- .2 Refer to other Specifications in these Documents to determine their effect upon the work of this section.

1.2 Work Included

- .1 The Contractor is to supply all necessary labour, materials, tools, services, and incidentals to supply and install the specified landscape topsoil and finish grading as shown on the drawings and as specified herein.
- .2 This section applies to topsoil load, haul, spread, and to finish fine grading after rough grade has been established at 150 mm below finished grade to a tolerance of +/- 25 mm unless noted otherwise.

1.3 Related Sections

- .1 Section 02310 – Rough Grade
- .2 Section 02315 – Excavating, Trenching, Backfilling

1.4 References

- .1 OPSS 206 – Grading
- .2 OPSS 401 – Trenching, Backfilling, and Compacting
- .3 OPSS 802 – Topsoil

1.5 Site Examination

- .1 Verify all site conditions which may affect the performance of this section.
- .2 Report in writing all conditions which may adversely affect the work of this section.
- .3 Commencement of the work implies acceptance of all surfaces and site conditions. No claims for damages or extras after commencement of the work will be accepted, except where such damages or extras are due to conditions which could not be determined prior to construction.

1.6 Schedule

- .1 Schedule placing of topsoil and finish grading to permit sodding or seeding operations.

1.7 Delivery, Storage and Handling

- .1 Haul topsoil along an approved routes and carefully avoid damage to existing finished works. Any damage shall be repaired by the Contractor at no cost to Owner. All truck and equipment traffic shall be co-ordinated by the Contractor so as to not impede the daily operation of roads, both internal and external to the site.
- .2 Clean up all contamination of existing paved areas both internal and external to site.

1.8 Testing and Inspection (Imported Topsoil, if required)

- .1 Inspection and testing of topsoil will be carried out by the Contractor immediately after notification of Contract award.
- .2 Test samples shall be an amalgamation of at least three (3) samples randomly taken from the source. Samples shall be carefully mixed, recorded, labelled, and otherwise documented prior to delivery to the testing laboratory.
- .3 Carefully communicate to the testing laboratory the intended use to which the topsoil is to be put.
- .4 Submit two (2) copies of the test results to the Client Representative. Unless otherwise indicated in the Special Requirements, test results shall include NpK, Mg, soluble salt content, organic matter content, sand and silt content, pH, and Atrazine. Cost of testing shall be borne by the Contractor.
- .5 In the event test results indicate that the topsoil does not meet the quality criteria noted in the specification, the Client Representative shall direct the Contractor to take the necessary remedial action. The cost of such remedial action shall be borne by the Contractor.
- .6 Make topsoil available for inspection at source by Client Representative. All topsoil shall be subject to Client Representative's approval before use on job site, but subject to receipt and analysis of soil testing report.

PART 2 - PRODUCTS

2.1 Materials

- .1 Topsoil required for load, haul, spread and finish fine grading shall be stockpiled on site by the Contractor.

- .2 Extra topsoil, if required, shall be supplied by the Contractor from an approved supplier and shall be No. 1 topsoil.
- .3 Unless otherwise indicated in the Special Requirements, extra topsoil shall be fertile, friable, natural loam containing 4% minimum organic matter for clay loams and 2% minimum organic matter for sandy loams. Acidity range shall be from 6.0 pH to 7.5 pH and shall be capable of sustaining vigorous plant growth. It shall be free of any admixture of subsoil, clay lumps, stones, and roots over 50 mm diameter and any other extraneous matter and shall be reasonably free of weeds and weed seeds.

PART 3 - EXECUTION

3.1 Topsoil Spreading and Finish Grading

- .1 Have sub-grade approved by the Client Representative prior to commencing topsoil placement.
- .2 Scarify sub-grade surface to a minimum depth of 75 mm to facilitate bonding.
- .3 Do not spread topsoil when it is frozen or wet.
- .4 Remove and dispose of all stones, sticks, subsoil, lumps, or other debris in excess of 50mm diameter and all surface litter and live weeds.
- .5 Spread topsoil to a minimum depth of 150mm over the approved sub-grade unless noted otherwise on the drawings.
- .6 Manually spread topsoil around existing trees and shrubs.
- .7 Fine grade topsoil to eliminate rough and low areas to ensure positive surface drainage, blend smoothly with adjacent finished grade elevations and conform to the specified levels and profiles.
- .8 Grade swales and ditches evenly to ensure positive runoff to drainage inlets, without ponding and with smoothly rounded, uniform side slopes.
- .9 Roll topsoil surface of all areas to be sodded or seeded to produce a smooth, uniform surface that is firm against deep footprints and with a fine, loose texture.
- .10 Have finished surfaces inspected by the Client Representative before placing sod or seed. Approval of finished grade shall not relieve the Contractor of any remedial grading works which may be required.
- .11 Dispose of surplus materials and debris off the site and clean up soil contamination from all paved surfaces.

END OF SECTION

PART 1 - GENERAL

1.1 General Requirements

- .1 The General Requirements, Bid Form, Instructions to Bidders, Bid Policies, Special Provisions, The Agreement and the Contract Drawings shall form part of this specification in the same manner as if they were recited in full herewith.
- .2 Refer to other Specifications in these Documents to determine their effect upon the work of this section.

1.2 Work Included

- .1 The Contractor is to supply all necessary labour, materials, tools, services, and incidentals to supply and install the specified hydraulic seeding as shown on the drawings and as specified herein.
- .2 Contractor shall remain within restoration area allocated for seed or obtain prior approval from the Client Representative should additional restoration be required.

1.3 Related Sections

- .1 All Division 1 Specification Sections
- .2 Section 02920 – Landscape Topsoil and Finish Grading

1.4 References

- .1 OPSS 804 – Seed and Cover
- .2 Agriculture and Agri-Food Canada (AAFC)
 1. Plant Hardiness Zones in Canada – 2000.
- .3 Canadian Nursery Landscape Associations (CNLA)
 1. Canadian Standards for Nursery Stock – 8th Edition.
- .4 Canada Seeds Act (R.S., 1985, c. S-8)
- .5 Canada Fertilizers Act (R.S., 1985 c. F-10)

1.5 Quality Assurance

- .1 Drill seed, hydraulic seed and terraseeding shall be done only by skilled workmen, with suitable machinery, and supervised by foremen experienced in the type of works specified herein, and who are known to have been responsible for satisfactory installations similar to that specified, during a period of at least five (5) years.

1.6 Submittals

- .1 Submit product data in accordance with Section 01330 - Submittal Procedures.
- .2 Provide product data for:
 1. Seed Mix
 2. Fertilizer
 3. Mulch
- .3 Provide samples for:
 1. 500 g sample of seed.
 2. Submit original seed package label with sample.
- .4 Submit in writing to Client Representative seven (7) days prior to commencing work:
 1. Volume capacity of hydraulic seeder in litres.
 2. Amount of material to be used per tank based on volume.
 3. Number of tank loads required per hectare to apply specified slurry mixture per hectare.

1.7 Source Quality Control

- .1 Obtain approval from the Client Representative for source of seed.
- .2 When proposed source of seed is approved, use no other source without written authorization from Client Representative.

1.8 Site Examination

- .1 Verify all site conditions which may affect the performance of this section.
- .2 Report in writing all conditions which may adversely affect the work of this section.
- .3 Commencement of the work implies acceptance of all surfaces and site conditions. No claims for damages or extras after commencement of the work will be accepted, except where such damages or extras are due to conditions which could not be determined prior to construction.

1.9 Delivery, Storage and Handling

- .1 Deliver and store seed in original containers showing:
 1. The name and address of the seed supplier.

2. The name of the seed mix and the various individual seed species that comprise the seed mix and the percentage by mass of each.
 3. The grade of the seed or seed mix.
 4. The percentage of pure seed
 5. The year of production
 6. The date when tagged and location
 7. Percentage germination
 8. The supplier's lot designation number corresponding to the Certificate of Seed Analysis.
 9. Mass in kilograms of the seed mix.
 10. The inoculant type, strain, and expiry date.
- .2 All seed and inoculant shall be stored in cool, dry locations until use. Inoculant is only required for seed mixes containing Crown Vetch or Birdsfoot Trefoil.

1.10 Scheduling

- .1 Schedule seeding operations to coincide with the completion of finished grading.
- .2 Seed during early spring to late August to October 15th only.
- .3 Dormant lawn seeding may be applied in late fall for spring germination under optimal conditions.
- .4 No work shall be performed when ground is frozen, wet or otherwise untellable, or when even distribution of materials cannot be obtained.

1.11 Storage and Protection

- .1 Immediately after seeding, erect barricades and warning signs to protect seeded areas from traffic until seed is established.
- .2 Clean up immediately any soil or debris spilled onto pavement or concrete.
- .3 Be responsible for protection of surrounding conditions during installation of the work of this section.
- .4 Repair and make good at own cost all damages to surrounding conditions caused by the works of this section.

PART 2 - PRODUCTS

2.1 Materials

- .1 Seed: Certified Canada No. 1 Grade to Government of Canada, Seeds Regulations and having minimum germination of 75% and minimum purity of 97%.

Refer to drawings for seed mix specifications, seeding rates and methods of application.

- .2 Water: potable, free of impurities that would inhibit germination and growth.

Water access will be available for use by the Contractor on site once the service is installed and operational. The Contractor shall be granted access by the Client Representative for the duration of the project. The Contractor will be responsible to ensure that the water service is locked at the end of each working day.

- .3 Fertilizer: shall comply with the provisions of the Canada Fertilizers Act and Fertilizer Regulations. Fertilizer shall be supplied in original bags bearing the manufacturer's original label indicating mass and analysis. All fertilizer shall be in granular form, dry, free flowing and free from lumps, and applied at rates specified by the Client Representative.

- .4 Hydraulic Mulch: specially manufactured for use in hydraulic seeding equipment, non-toxic, water activated, green colouring, free of germination and growth inhibiting factors with the following properties:

1. Type I Mulch:

- .1 Made from wood cellulose fibre
.2 Organic matter content: 95% +/- 0.5%
.3 pH: 6.0
.4 Potential water absorption: 900%

- .5 Tackifier: shall be 'Ver-Tack', as supplied by Verdyol Plant Research Ltd. Available from Erosion Control Blanket (866) 280-7327 or approved equal.

- .6 Composted Topsoil: shall be pre-mixed and shall consist of a minimum of 60% Composted Material. The composted topsoil may be amended by the addition of Concrete Sand and Peat Loam.

- .1 Concrete sand shall be added to improve aeration and soil structure.

- .2 Peat loam shall be added to adjust the pH of the compost and to make the composted topsoil lighter and easier to apply.
 - .3 Both amendments shall be added at the discretion of the Contractor to ensure that the composted topsoil meets the material specification and is suited for distribution by seeding equipment.
 - .4 Once mixed, composted topsoil material shall consist of particles where 100% of the material is able to pass through a 25 mm sieve.
- .7 Composted Organics:
1. Shall be specially manufactured, pre-mixed and shall consist of 100% composted material suitable for the local soil conditions and for efficient and uniform distribution by a hydraulic seeding equipment device.
 2. Once mixed, composted organic material shall consist of particles where 100% of the material is able to pass through a 25 mm sieve.
 3. Compost shall be derived from well-composted green organic waste matter. All compost material shall meet the Ontario Ministry of the Environment's Interim Guidelines for the Production and Use of Aerobic Compost in Ontario, definition for Type A compost, and shall be supplied from composting sites certified to meet the Ontario Ministry of the Environment's Compost Regulation 101.
- .8 Concrete Sand: shall have a pH range of 7.7 to 8.0 with a mid-range of 7.8 and shall meet gradation requirements for concrete sand as described in OPSS.
- .9 Peat Loam: shall consist of a minimum 50% organic matter and equal parts sand, silt, and clay. Peat loam shall be suitable for horticultural purposes. Shredded particles shall not exceed 16mm in size.
- .10 Inoculants: inoculant containers to be tagged with expiry date.

2.2 Equipment

- .1 Brillion drill seeder, or equivalent, shall be suitable for seeding large, open areas; capable of applying seed at precise, controlled rates; capable of pressing the seed into the soil to maximize germination potential.

- .2 Hydraulic seeding equipment shall be capable of mixing the materials into homogeneous slurry and maintaining the slurry in a homogeneous state until it is applied. The discharge pumps and gun nozzles shall be capable of applying the materials uniformly over the specified area. A hose extension for the hydraulic seeding equipment shall be on site and available for use for areas outside of the range of the gun nozzle.
- .3 The pneumatic blower truck shall be a custom manufactured, fully integrated, truck-mounted unit. The blower truck shall be equipped with a computer-calibrated seed injection system and shall be capable of uniformly applying composted topsoil and seed at a rate greater than 0.25 cubic meters of material per minute. The blower truck shall also be equipped with an application hose capable of extended 90 m from the blower truck unit.

PART 3 - EXECUTION

3.1 Workmanship

- .1 Protect areas from trespass until seed is established.
- .2 Keep site well drained.
- .3 Perform work under optimum field conditions. Do not undertake seeding operation under adverse conditions including moisture, temperature, wind or scheduling related work.
- .4 Clean up immediately soil or debris spilled onto pavement, dispose of deleterious materials.
- .5 Do not spray onto structures, signs, guide rails, fences, plant material, utilities and other than intended surfaces.

3.2 Operational Constraints

- .1 Seeding operation shall not start until the Client Representative is in receipt of the Certificate of Seed Analysis for the seed or seed mixes being applied.
- .2 Seeding operations shall not start until the Client Representative has approved the surface preparation, layout of seed mix locations and different cover types.
- .3 The surface to be seeded shall not be prepared more than seven (7) days in advance of seed and cover operations.
- .4 Seed and cover application shall not be carried out under adverse weather conditions such as high wind, heavy rain, or when field conditions are not conducive to seed germination, such as frozen soil, soil covered with snow, ice or standing water.

- .5 The Contractor shall maintain the site and sediment control measures until final acceptance of the seed and cover.
- .6 No seed or cover shall come in contact with the foliage of any trees, shrubs or other vegetation.
- .7 No seed or cover shall come in contact with any water bodies.

3.3 Preparation of Surfaces

- .1 Verify that grades are correct and prepared in accordance with Section 02920 – Landscape Topsoil and Finish Grading. Obtain Client Representative's approval of topsoil grade and depth before proceeding with Work of this Section.
- .2 Cultivate areas to be seeded to 50 mm depth. Fine grade free of lumps and hollows and free of deleterious and refuse material.
- .3 Ensure areas to be seeded are moist to depth of 150 mm prior to seeding.

3.4 Layout

- .1 The locations of the different, permanent seed mixes and composted topsoil shall be staked out on the ground surface in accordance with the contract drawings. Stakes shall be used to indicate the limits of each type of seed mix and are to be approved by the Consultant prior to commencement of seeding operations.

3.5 Fertilizing

- .1 Apply the fertilizer only after final grade has been approved by the Client Representative.
- .2 Apply fertilizer at manufacturer's recommended rate.
- .3 Spread evenly with calibrated mechanical distributor.
- .4 Mix thoroughly into upper 50 mm of topsoil.

3.6 Preparation of Slurry

- .1 Hydraulic seeding equipment:
 - 1. Slurry tank: minimum 1000 litres
 - 2. Agitation system for slurry to be capable of operating during charging of tank and during seeding, consisting of recirculation of slurry and/or mechanical agitation method.
 - 3. Capable of seeding by 90 m hand operated hoses and

appropriate nozzles.

4. Tank volume to be certified by certifying authority and identified by authorities "Volume Certification Plate".
- .2 Slurry mixture applied per hectare:
 1. Seed: As specified on drawings
 2. Mulch: As specified on drawings
 3. Tackifier: as recommended by manufacturer
 4. Water: as required to fill tank
 5. Fertilizer: As specified on drawings

3.7 Seed Application: Drill Seeding

- .1 Undertake seeding operations only after final grade has been approved by the Client Representative.
- .2 Seed application rate to be as specified by the seed manufacturer.
- .3 Seed to penetrate into field surface to a depth specified by the seed manufacturer (6mm to 12mm).

3.8 Seed Application: Hydraulic Seeding

- .1 Undertake seeding operations only after final grade has been approved by the Client Representative.
- .2 Seed application rate to be as specified by the seed manufacturer.
- .3 Preparation of Slurry:
 1. Hydraulic seeding equipment:
 - .1 Slurry tank: minimum 1000 litres
 - .2 Agitation system for slurry to be capable of operating during charging of tank and during seeding, consisting of recirculation of slurry and/or mechanical agitation method.
 - .3 Capable of seeding by 90m hand operated hoses and appropriate nozzles.
 - .4 Tank volume to be certified by certifying authority and identified by authorities "Volume Certification Plate".
 2. Slurry mixture applied per hectare:
 - .1 Seed: As specified

- .2 Mulch: As specified
 - .3 Tackifier: as recommended by manufacturer
 - .4 Water: as required to fill tank
 - .5 Fertilizer: Based on Soil Fertility Testing recommendations and approval by the Client Representative.
- .4 Seed Application:
- 1. When thoroughly mixed, the water slurry shall be applied to prepared topsoil surfaces by use of the nozzle sprayer or extension hose.
 - 2. Apply slurry uniformly, at optimum angle of application for adherence to surfaces and germination of seed.
 - .1 Using correct nozzle for application.
 - .2 Using hoses for surfaces difficult to reach and to control application.
 - 3. The Contractor shall ensure the uniform dispersal of the mixed material over the entire area designated for seeding.
 - 4. The Contractor shall ensure that seed application operations do not dislodge soil or cause erosion.
 - 5. Blend application 300 mm into adjacent grass areas or sodded areas and previous applications to form uniform surfaces.
 - 6. Re-apply where application is not uniform.
 - 7. Remove slurry from items and areas not designated to be sprayed.
 - 8. Protect seeded areas from trespass satisfactory to Consultant.
 - 9. Remove protection devices as directed by the Consultant.

3.9 Seed Application: Terraseeding

- .1 Undertake seeding operations only after final grade has been approved by the Consultant.
- .2 Seed application rate to be as specified by the seed manufacturer.
- .3 Prior to the application of the composted topsoil and seeding, the Contractor shall ensure that the pneumatic blower has been properly calibrated to provide the specified amounts of seed and that the

blower can uniformly apply composted topsoil and seed at a rate greater than 0.25 cubic meters of material per minute.

- .4 Once the blower has been calibrated, the Contractor shall apply composted topsoil and seed uniformly to prepared topsoil surfaces.
- .5 Composted topsoil shall be applied at specified depths to all areas identified for cover in the contract drawings.
- .6 Composted Topsoil to be applied to the following minimum depths, based on slope gradation:
 - .1 0 – 5% slope: 10 – 15 mm depth
 - .2 5 - 10% slope: 15 – 20 mm depth
 - .3 10 – 25% slope (4:1): 20 – 25 mm depth
 - .4 25 – 35% slope (3:1): 25 – 40 mm depth
 - .5 35 – 45% slope: 40 – 50 mm depth
- .7 The Contractor shall ensure the uniform dispersal of the mixed material over the entire area designated for seeding.
- .8 The Contractor shall ensure that seed application operations do not dislodge soil or cause erosion.
- .9 Composted topsoil and seed shall overlap the adjoining ground cover by 300 mm.

3.10 Clean up

- .1 At the completion of the seeding and cover operation, materials applied to areas or objects other than those designated to grow grass shall be removed. Clean water shall be used to immediately wash seed or cover materials that have been applied to the foliage of trees, shrubs, or other susceptible plant growth.

3.11 Maintenance

- .1 Ensure maintenance equipment suitable to Client Representative.
- .2 Keep soil moist during germination period and adequately water seeded areas until accepted by the Consultant.
- .3 Water seeded areas in sufficient quantities and at frequency required to maintain soil under sod continuously moist to depth of 75 to 100 mm. Control watering to prevent wash-outs.
- .4 Maintain seeded areas free of pests and disease.

- .5 Maintain seeded areas weed free, utilising weed control methods conforming to all federal, provincial, and municipal legislation. Be responsible for any damages caused by weed control methodology.
- .6 Fertilize seeded areas one month after seeding. Spread evenly and water thoroughly.
- .7 Do not mow low maintenance seeded areas.
- .8 Cut grass to 40 mm when it reaches height of 50 mm. Remove clippings which will smother grassed areas.

3.12 Preliminary Acceptance

- .1 Preliminary Acceptance for seeding will be granted in conjunction with Preliminary Acceptance for the Work as a whole provided that:
 - 1. All seed is well established and in vigorous growing condition.
 - 2. Seed is free of bare and dead spots and is without weeds.
 - 3. No surface soil is visible from height of 1500 mm when grass has been cut to 40 mm height.
 - 4. Turf grass areas have been cut at least two (2) times.

3.13 Final Acceptance

- .1 Final acceptance will be provided two (2) years after Preliminary Acceptance provided that all seeded areas are well "knitted-in" and in a condition equal to that at Preliminary Acceptance, with allowance for normal wear and tear.

3.14 Warranty

- .1 During the warranty period (2 years) replace all seed that is bare, dead, diseased, or has failed to establish.

END OF SECTION

PART 1 - GENERAL

1.1 General Requirements

- .1 The General Requirements, Bid Form, Instructions to Bidders, Bid Policies, Special Provisions, The Agreement and the Contract Drawings shall form part of this specification in the same manner as if they were recited in full herewith.
- .2 Refer to other Specifications in these Documents to determine their effect upon the work of this section.

1.2 Work Included

- .1 The Contractor is to supply all necessary labour, materials, tools, services and incidentals to supply and install the specified concrete as shown on the drawings and as specified herein.

1.3 Related Sections

- .1 Section 02310 – Rough Grade
- .2 Section 02315 – Excavating, Trenching, Backfilling
- .3 Section 02920 – Landscape Topsoil and Finish Grading

1.4 References

- .1 CSA-A23.1-94 – Concrete Materials and Methods of Concrete Construction
- .2 OPSS 350 – Concrete Pavement and Concrete Base
- .3 OPSS 501 – Compacting
- .4 OPSS 905 – Steel Reinforcement for Concrete
- .5 OPSS 919 – Falsework and Formwork
- .6 OPSS 1010 – Base, Subbase, Select Subgrade and Backfill Material
- .7 OPSS 1308 – Joint Filler in Concrete
- .8 OPSS 1350 – Concrete – Materials and Production
- .9 OPSS 1440 – Steel Reinforcement for Concrete

1.5 Reference Standards

- .1 Do concrete formwork in accordance with OPSS 919, except where specified elsewhere.

- .2 Do falsework in accordance with OPSS 919, except where specified elsewhere.
- .3 Do reinforcing work in accordance with OPSS 905 and welding of reinforcing with OPSS 905, except where specified otherwise.
- .4 Do cast-in-place concrete work in accordance with OPSS 350, except where specified otherwise.

1.6 Quality Assurance

- .1 The work shall be done only by skilled workmen, with suitable machinery, and supervised by foremen experienced in the type of works specified herein, and who are known to have been responsible for satisfactory installations similar to that specified, during a period of at least five (5) years.

1.7 Site Examination

- .1 Verify all site conditions which may affect the performance of this section.
- .2 Report in writing all conditions which may adversely affect the work of this section.
- .3 Commencement of the work implies acceptance of all surfaces and site conditions. No claims for damages or extras after commencement of the work will be accepted, except where such damages or extras are due to conditions which could not be determined prior to construction.

1.8 Storage and Protection

- .1 Be responsible for protection of surrounding conditions during installation of the work of this section.
- .2 Repair and make good at own cost all damages to surrounding conditions caused by the works of this section.
- .3 Protect all concrete from damage and vandalism until set.

1.9 Schedule

- .1 Co-ordinate with mechanical, electrical and irrigation sub-trades to ensure all required hardware is installed.
- .2 Do not pour concrete during, or for 24 hours after, rain/snow fall.
- .3 Examine subgrade and ensure soil material is not frozen or saturated with water. Do not use frozen base materials. Do not install base on frozen subgrade.

- .4 Concrete shall be placed with a mix temperature within the range of 10°C and 28°C.

1.10 Testing and Inspection

- .1 Contractor shall coordinate inspection and testing of concrete materials with the Town's Geotechnical Engineer.
- .2 Re-testing: if test results indicate concrete to be deficient, re-testing shall be paid for by the Contractor.
- .3 Prepare one additional test cylinder during cold weather concreting. Cure cylinder on job site under same conditions as concrete is represents.
- .4 Non-destructive methods for testing concrete shall be according to OPSS 1350.
- .5 Provide the Client Representative with certified copy of mill test report of reinforcing steel supplied, physical and chemical analysis, and minimum five (5) weeks prior to commencing reinforcing work.

1.11 Substitutes

- .1 Substitution of different size bars permitted only upon written approval of Structural Consultant.

1.12 Warranty

- .1 The Contractor shall warranty all material and workmanship for a period of two (2) years from the date of Preliminary Acceptance / Substantial Performance.

PART 2 - PRODUCTS

2.1 Formwork and Falsework

- .1 Formwork lumber: plywood and wood formwork materials to OPSS 919.
- .2 Falsework materials: to OPSS 919. Materials shall bear grade marks or be accompanied with certificate test reports or other proof of conformity.
- .3 Form release agent: chemically active release agents containing compounds that react with free lime present in concrete to provide water insoluble soaps, preventing set of film of concrete in contact with form, such as "Formshield" by W. R. Grace and "Non-crete" by Bird-Goodco.

2.2 Fabrication

- .1 Fabricate reinforcing in accordance with OPSS 905.

- .2 Obtain Structural Consultant's approval for locations of reinforcement splices other than shown on steel placing drawings.
- .3 Ship bundles of bar reinforcement, clearly identified in accordance with bar list.

2.3 Concrete Mixes

- .1 Proportion normal density concrete to CSA-A23.1-94, Clause 14, to give the following mix for concrete as required on the drawings, use Type 10 Cement to give minimum compressive cylinder strength of 32 MPa in 28 days for Class C-2 exposure with 20 mm nominal size of coarse aggregate, slump at point and time of discharge maximum 100 mm, minimum 75 mm, air content 5% to 7%. Water cement ratio: .45. Possolanic mineral admixtures: Pozzoloth-normal.
- .2 Provide certification that plant, equipment and all materials to be used in concrete comply with the requirements of CSA-A23.1-94.
- .3 Provide certification that mix proportions selected will produce concrete of specified quality and yield and that strength will comply with CSA-A23.1-94, Clause 17.5.
- .4 Obtain Structural Consultant's approval before using chemical admixtures other than those specified.

PART 3 - EXECUTION

3.1 General

- .1 Provide the Client Representative with at least 48 hours notification prior to placement of concrete to permit a review of compaction, placement of formwork, reinforcing steel, and associated items embedded in concrete for conformance to reviewed Shop Drawings and Contract Documents.
- .2 Do not place concrete on surfaces which contain frost, water or debris.

3.2 Preparation

- .1 Verify grades of items set in paving area for conformity with elevations and sections before placing granular base in accordance with Section 02315 – Excavating, Trenching, Backfilling.
- .2 Prevent damage to adjacent and/or existing buildings and/or properties, and existing curbs, sidewalks and asphalt paving.
- .3 Accurately saw-cut and modify existing sidewalks to nearest adjacent dummy/expansion joint as directed on site by the Client Representative.

- .4 Wet base immediately in advance of concreting to ensure a firm moist surface without ponding.

3.3 Form of Erection

- .1 Verify lines and levels before proceeding with formwork and ensure dimensions agree with Drawings.
- .2 Construct forms to produce finished concrete conforming to shape, dimensions locations and levels indicated within tolerances required by OPSS 919.
- .3 Construction falsework to OPSS 919.
- .4 Obtain Structural Client Representative's approval for use of earth forms.
- .5 Hand-trim sides and bottoms and remove loose earth from earth forms before placing concrete.
- .6 Align form joints and make watertight. Keep form joints to minimum.
- .7 Form chases, slots, openings, drips, recesses, expansion and control joints as indicated.
- .8 Leave formwork in place for following minimum periods of time after placing concrete to OPSS 919 (20MPa or 1 day).
- .9 Re-use of formwork and falsework subject to requirements of OPSS 919. (OPSS 919 "Forms for exposed surfaces shall be new, except that forms may be re-used for exposed surfaces providing their condition is such as to produce a surface equal to one that would be attained using new materials.)

3.4 Reinforcement Field Bending

- .1 Do not field bend reinforcement except where indicated or authorized by Client Representative.
- .2 When field bending is authorized, bend without heat, applying a low and steady pressure.
- .3 Replace bars which develop cracks or splits.

3.5 Placing Reinforcement

- .1 Place epoxy-coated reinforcing steel as indicated on drawings and in accordance with OPSS 905.
- .2 Paint portion of dowel intended to move within hardened concrete with one coat of lead or asphalt paint. When paint is dry, apply a thick, even film of mineral lubricating grease.

- .3 Obtain Structural Engineer's approval of reinforcing steel and position.

3.6 Joint Fillers

- .1 Place joint filler against adjacent sidewalk bays for concrete apron areas.
- .2 For concrete curbs install joint filler every 6 metres. Premoulded joint fillers will be:
 1. Bituminous impregnated fibreboard: to OPSS 1308.
 2. Vinyl foam: to OPSS 920, Type I, flexible grade.
 3. Self-expanding cork: to ASTM D1752-67 (1978), Type II.
- .3 Use 12 mm thick joint filler to separate slabs on grade from vertical surfaces and extend joint filler from bottom of slab to within 12 mm of finished slab surface unless indicated otherwise.

3.7 Control Joints

- .1 Layout control joints for on site approval by Client Representative.
- .2 Layout control joints with a maximum area of 10 square metres of concrete paving without a control joint.
- .3 Form control joints, expansion joints, and edges with trowel tool.
- .4 Saw cut control joints to a depth of 37 mm immediately upon concrete setting.

3.8 Workmanship

- .1 Obtain Client Representative 's approval before placing concrete. Provide 24 hours notice prior to placing of concrete.
- .2 Place concrete in accordance with OPSS 350.
- .3 Ensure reinforcement and inserts are not disturbed during concrete placement.
- .4 Obtain Client Representative's approval of proposed method of protection of concrete during placing and curing in adverse weather, prior to placing of concrete.
- .5 Maintain accurate records of poured concrete items to indicate date, location of pour, quality, air temperature and test samples taken.

3.9 Inserts

- .1 Set sleeves, ties, anchor bolts, pipe hangers and other insert openings and sleeves in concrete as required by other trades. Sleeves, openings, etc., greater than 100 x 100 mm not indicated on drawings must be approved by the Client Representative.
- .2 Do not eliminate or displace reinforcement to accommodate hardware. If inserts cannot be located as specified, obtain approval of all modifications from the Client Representative before placing.

3.10 Finishing of Concrete

- .1 Finish concrete to OPSS 350.
- .2 Rub exposed sharp edges of concrete with carborundum to produce 3 mm radiused edges unless otherwise detailed.
 1. Cure and seal all slabs with one coat of the specified curing agent in accordance with the manufacturer's instructions.

3.11 Defective Concrete

- .1 Remove defective concrete, blemishes and embedded debris and repair as directed by the Client Representative.
- .2 Any areas damaged by footprints, tires, or writing in concrete shall be broken out and replaced at the Contractor's expense

END OF SECTION