Municipality of the County of Cumberland

Parrsboro – Well No. 5 Development

CBCL LIMITED
Consulting Engineers

Issued for Tender

January 2020
Tender No. T-MCC-2001

Municipality of the County of Cumberland

Parrsboro Well No. 5 Development

Issued for Tender	AE	Jan. 16/20	JAB
Issued for Review	A.E.	Dec. 4/19	J.A.B.
Issue or Revision	***Reviewed By:***	***Date***	***Issued By:***

CBCL LIMITED
Consulting Engineers

REGISTERED PROFESSIONAL ENGINEER
PROVINCE OF NOVA SCOTIA
DATE JAN 10/20
J.A. BAILLIE
7791

CBCL No. 190841

THESE PROJECT DOCUMENTS HAVE BEEN PREPARED FOR USE WITH AND REQUIRE BEING READ IN CONJUNCTION WITH **THE STANDARD SPECIFICATION FOR MUNICIPAL SERVICES** AS PUBLISHED BY THE NOVA SCOTIA ROAD BUILDERS ASSOCIATION - CONSULTING ENGINEERS OF NOVA SCOTIA AND THE **JOINT COMMITTEE ON CONTRACT DOCUMENTS.** COPIES OF THESE DOCUMENTS ARE AVAILABLE FROM THE JOINT COMMITTEE ON CONTRACT DOCUMENTS, 455 COLBY DRIVE, DARTMOUTH, NS, B2V 2K4; PHONE: (902)233-9362 OR BY EMAIL AT: NSMUNICIPALSERVICES@GMAIL.COM. Visit www.standardspec.ca for more information and to place an order for these specifications.

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END

BIDDING AND CONTRACT REQUIREMENTS

1. A complete Tender is comprised of the following:

   a) The Tender Form in its entirety, with all pages and spaces for entry of information by Tenderers filled in as instructed.

   b) Addenda received by the Tenderer during the tendering period.

   c) Tender Security (refer to clause 12 herein).

2. The Tender shall be submitted in a sealed envelope marked as follows:

   TENDER FOR:

   Municipality of the County of Cumberland
   Parrsboro – Well No. 5 Development
   Tender No. T-MCC-2001

   and must be delivered to:

   Municipality of the County of Cumberland
   1395 Blair Lake Road
   Upper Nappan, NS B4H 3Y4

   Attention: Justin Waugh-Cress, P.Eng.
   Direct of Engineering and Operations

   up until 2:00 p.m., local time, on **February 6, 2020** hereinafter referred to as the Tender Closing.

3. Tender opening will occur immediately following tender closing. Tender opening will be public.

4. Before tendering, Tenderers shall have examined the site of the work and shall have satisfied themselves as to the working conditions, including labour conditions and labour rules, the nature and kind of work to be done, any special risks associated therewith and all other matters which may be necessary in order to form a proper conception under which the work will be required to be performed. Tenderers shall not be entitled to claim at any time after execution of the Contract that there was any misunderstanding in regard to all such conditions.

5. When forming their estimates and preparing their tenders, Tenderers shall take full cognizance of the content of all the Tender Documents listed in Section 00 41 13.

6. Any ambiguities, inconsistencies, or uncertainties in the Contract Documents which may become apparent to Tenderers when tendering shall be advised IN WRITING to the Engineer, CBCL Limited, 1505 Barrington, Suite 901, Street, Halifax, NS B3J 3Y6, Attention: Aaron Baillie, P.Eng., at aaronb@cbcl.ca or Fax: (902)423-3938, not less than three (3) working days before Tender closing. Tenderers will be advised simultaneously of any decisions on such matters as necessary by means of addenda (which

will be serially numbered) and all addenda issued shall be incorporated into the Tender Documents. Addenda will be posted on the NS Procurement site as well as the Owner's procurement webpage. Plan takers will be solely responsible to obtain and acknowledge the receipt of all addenda. Failure to acknowledge addenda on the tender form will result in the disqualification of bid.

7. The Tenderer shall fill in the Completion Time and is notified that the completion date based on this may be taken into account in considering the tenders.

8. All tenders shall be valid for acceptance for sixty (60) calendar days from the Closing Date.

9. The Agreement is included in the Contract Documents at the time of tendering only for information and shall not be completed at the time of tendering.

10. The appending of any qualifying clauses to the tender or failure to comply with these instructions and with all other relevant provisions contained in the documents in the completing of any tender renders such tender liable to disqualification.

11. Contract Price to exclude HST. Harmonized sales tax shall be indicated as a separate amount and included in the Total Amount Payable.

12. Each tender shall be accompanied by Tender Security in the amount of ten percent (10%) of the Total Amount Payable in evidence of the bona fide nature of the tender. This Tender Security shall be in favour of the Owner and shall be in the form of a Certified Cheque, irrevocable Letter of Credit or a Bid Bond which shall guarantee to the Owner that in the event of the successful Tenderer declining to enter into a formal agreement with the Owner as called for in the Tender Documents, or declining or neglecting to provide the Insurance or Contract Security required by the Contract Documents, then the Owner will be reimbursed the additional cost of accepting another tender or Tender Security amount, whichever is the lesser.
.1 The bonds shall be issued by a company whose guarantee bonds are acceptable to the Government of Canada. Use latest edition of CCDC Form 220.

13. The Tender Security of the unsuccessful Tenderers will be returned to them after the Owner enters into a formal agreement with the successful Tenderer or the expiration of validity of their tenders, whichever is the sooner.

14. On the written acceptance by the Owner of a tender, that tender becomes the Contract and the Tenderer who has submitted it becomes the Contractor. The Contractor will be required to enter into a formal agreement with the Owner following receipt of a written notice of acceptance from the Owner. The written notice of acceptance forms a Contract Agreement until the formal "Agreement" is executed.

15. Within seven (7) days of written acceptance of a tender, tenderer will provide Contract Security in the amount and form as specified in GC 11.2 and as supplemented in Section 00 73 10, and Insurance as specified in GC 11.1.

16. Complete the Tender Form in ink and have corrections initialled by the individual signing the tender.

17. Where manufactured articles are described or specified in the Contract Documents by name, catalogue number of a manufacturer or supplier, Tenderers shall tender on the basis of using only such articles. Procedure concerning substitution of a specified article with another shall be in accordance with equivalents and alternates in Section 01 10 00.

18. The Owner will not defray any expenses whatsoever incurred by Tenderers in the preparation and submission of their tenders. The Owner reserves the right to waive any formality or technicality in any tender.

19. The Owner reserves the right to accept or to reject any or all tenders received, or to select a tender which is deemed by the Owner to be in its best interests. The tender with the lowest bid will not necessarily be accepted.

20. Tenders, which in the opinion of the Owner are considered to be informal or unbalanced, may be rejected.

21. Tenders may be amended or withdrawn by letter, or facsimile, (902) 667-1352 prior to Tender Closing. Amendments shall not disclose either original or revised total price.
    .1 Head amendment or withdrawal as follows:
    "[Amendment]/[Withdrawal] of Tender for the Municipality of the County of Cumberland, Parrsboro – Well No. 5 Development, Contract No. XXXXXX". Sign and seal as required for tender, and submit at address given for receipt of tenders. All Submissions must be received prior to Tender Closing.

22. Award of Contract is contingent on budget approval.

END

1. SALUTATION:

.1 To: Municipality of the County of Cumberland
1395 Blair Lake Road
Upper Nappan, NS
B4H 3Y4

.2 For: Parrsboro – Well No. 5 Development
Tender No. T-MCC-2001

.3 From: _____

2. TENDERER DECLARES:

.1 That this tender was made without collusion or fraud.

.2 That the proposed work was carefully examined.

.3 That the Tenderer was familiar with local conditions.

.4 That Contract Documents and Addenda No. ___ to ___ inclusive were carefully examined.

.5 That all the above were taken into consideration in preparation of this Tender.

3. TENDERER AGREES:

.1 To enter into a contract to supply all labour, material and equipment and to do all work necessary to construct the Work as described and specified herein for the unit prices stated in Subsection 4 hereunder, Schedule of Quantities and Unit Prices.

.2 That the estimated Contract Price shall be the sum of the products of the tendered unit prices times the estimated quantities in Subsection 4 hereunder.

.3 That this Tender is valid for acceptance for sixty (60) days from the time of Tender Closing.

.4 That measurement and payment for items listed in Subsection 4 hereunder shall be in accordance with corresponding items in Section 01 22 00 Measurement and Payment.

.5 To provide evidence of ability and experience within 7 days of request, including experience in similar work, work currently under contract, senior supervisory staff available for the project,

equipment available for use on the Work, and financial resources. This information will be taken in consideration at the time of Contract Award.

.6 To execute in triplicate the Agreement and forward same together with the specified contract security and insurance documents to the Owner within fourteen (14) days of written notice of award.

.7 That failure to enter into a formal contract and give specified insurance documents and contract security within time required will constitute grounds for forfeiture of certified cheque or enforcement of bid bond.

.8 That if certified cheque is forfeited, Owner will retain difference in money between amount of Tender and amount for which Owner legally contracts with another party to perform the Work and will refund balance, if any, to Tenderer.

.9 That the Contract Documents include:

.1 Standard Specifications for Municipal Services listed in Table of Contents Page Dated January 2019.

.2 Project Documents:

.1 Tender Form

.2 Form of Agreement

.3 General Conditions of the Civil Work Contract

.4 Supplementary Specifications

.5 Drawings

Dwg. No.	Title
-	Cover Sheet
C01	Well Field Site Plan Existing Conditions
C02	Well Field Site Plan Proposed Conditions
C03	Well Field Details

.6 Addenda as issued and as confirmed in subsection 2.4 of this section.

4. SCHEDULE OF QUANTITIES AND UNIT PRICES

Item No.	Description	Unit of Measurement	Estimated Quantity	Unit Price	Total Price
1.	Decommissioning of Well No. 1	L.S.	1		
2.	Pump Work	L.S.	1		
3.	Civil	L.S	1		
4.	Trench Excavation - Unsuitable Material (Provisional)	m^3	30		

SUBTOTAL $_____

TENDER SUMMARY

Estimated Contract Price **$**_____

Add HST (15% of the Estimated Contract Price) $_____

TOTAL AMOUNT PAYABLE **$**_____

TENDERER'S HST REGISTRATION NO. _____

5. COMPLETION TIME

.1 Tenderer agrees to complete the Work within _____ weeks from date of award of Contract.

6. SIGNATURE *

DATED THIS _____ DAY OF _____ , 2020.

[Seal]

_____
Name of Firm Tendering

_____
Signature of Signing Officer

_____ _____
Witness Name and Title (Printed)

_____ _____
Witness Signature of Signing Officer

_____ _____
Name and Title (Printed)

_____
Company Address

_____
Telephone No.

_____
Fax No.

*NOTE: Tenders submitted by or on behalf of any Corporation must be signed and sealed in the name of such Corporation by a duly authorized officer or agent.

END

This Agreement made on the _____ day of _____ in the year_____.

BY AND BETWEEN

Municipality of the County of Cumberland

hereinafter called the "Owner"

and

hereinafter called the "Contractor"

The Owner and the Contractor agree as follows:

ARTICLE A1 - THE WORK

The Contractor shall:

.1 Perform the Work required by the Contract Documents for

Parrsboro – Well No. 5 Development

Tender No. T-MCC-2001

located at Town of Parrsboro, N.S. for which the Agreement has been signed by the parties, and for which

CBCL Limited is acting as and is hereinafter called the “Engineer”,

and

.2 do and fulfill everything indicated by this Agreement, and

.3 commence the Work by the _____ day of _____in the year 202__ and attain Substantial Performance of the work as certified by the Engineer by the _____ day of _____ in the year 202__, but in no case later than_____.

ARTICLE A2 – AGREEMENTS AND AMENDMENTS

The Contract supersedes all prior negotiations, representations or agreements, either written or oral, relating in any manner to the work, including the bidding documents that are not expressly listed in Article A3 of the Agreement.

ARTICLE A3 - CONTRACT DOCUMENTS

The following are the Contract Documents referred to in Article A1 of the Agreement – THE WORK:

.1 STANDARD SPECIFICATIONS FOR MUNICIPAL SERVICES Table of Contents Dated January 2019.

.2 Project Documents:
- .1 Tender Form
- .2 Form of Agreement
- .3 CCDC 18-2001 General Conditions of the Civil Work Contract
- .4 Supplementary General Conditions
- .5 Supplementary Specifications
- .6 Drawings

Dwg. No.	Title
-	Cover Sheet
C01	Well Field Site Plan Existing Conditions
C02	Well Field Site Plan Proposed Conditions
C03	Well Field Details

.7 Addenda _____ through _____.

ARTICLE A4 - CONTRACT PRICE

.1 The estimated Contract Price is the sum of the products of the estimated quantities multiplied by the appropriate Unit Price in the Tender Form excluding the amount of HST. The estimated Contract Price is:

_____

_____/100 dollars $_____

.2 All amounts are in Canadian funds. Unit Prices exclude HST and Total Amount Payable includes HST.

.3 These amounts shall be subject to adjustments as provided in the Contract Documents.

.4 The final Contract Price will be the sum of the products of the actual final quantities that are incorporated in, or made necessary by the Work, as confirmed by count and measurement, multiplied by the appropriate Unit Prices from the Tender Form together with any adjustments that are made in accordance with the provisions of the Contract Documents plus the amount of HST.

ARTICLE A5 - PAYMENT

.1 The Owner shall pay the Contractor in Canadian funds for the performance of the Contract.

.2 The Owner shall make monthly payments on account to the Contractor for the Work performed, as certified by the Engineer, subject to a 10% holdback.

.3 The amount of the monthly payments shall be calculated as follows:
- .1 The quantity for each pay item on which actual work has been performed shall be measured.
- .2 For each Unit Price item this quantity shall be multiplied by the applicable Unit Price as provided in the Tender Form.
- .3 For each lump sum item, multiply the percent complete by the value of the lump sum item.
- .4 The total value of work completed for the payment period shall be calculated by adding the total of the products for all pay items from subsection 5.3.2 and 5.3.3 of this section.
- .5 The amount of the monthly payment shall be determined by deducting the 10% holdback and the total of all previous payments from the total value of such completed work as determined under subsection 5.3.4 of this section.
- .6 To the amount calculated above, the Harmonized Tax will be added.

.4 The last day of the payment period shall be the last day of the month.

.5 Upon Substantial Performance of the Work as certified by the Engineer the Owner shall pay to the Contractor the holdback monies then due in accordance with the provisions of Section 00 72 45 - General Conditions, subsection GC5.8 – PAYMENT OF HOLDBACK UPON SUBSTANTIAL PERFORMANCE OF THE WORK.

.6 Upon the issuance of the final certificate for payment, Work as certified by the Engineer the Owner shall pay to the Contractor the balance of monies then due in accordance with the provision of Section 00 72 45 - General Conditions, subsection GC5.10 – FINAL PAYMENT.

.7 In the event of loss or damage occurring where payment becomes due under the property and boiler insurance policies, payment shall be made to the Contractor in accordance with the provisions of Section 00 72 45 - General Conditions, subsection GC11.1 - INSURANCE.

.8 If the Owner fails to make payments to the Contractor as they become due under the terms of the Contract, interest shall be payable as follows:
- .1 The annual interest rate applicable to the contract is 2% compounded semi-annually.
- .2 Interest shall be calculated on the overdue balance from the due date.

ARTICLE A6 - RECEIPT OF AND ADDRESSES FOR NOTICES

.1 Communications in writing between the parties or between them and the Engineer shall be considered to have been received by the addressee on the date of delivery if delivered by hand to the individual, or to a member of the firm, or to an officer of the corporation for whom they are intended, or if sent by post or by facsimile, to have been delivered

within five (5) working days of the date of the mailing, dispatch or of delivery to the company when addressed as follows:

.1 The Owner at 1395 Blair Lake Road, Upper Nappan, NS, B4H 3Y4

.2 The Contractor at _____

.3 The Engineer at 1505 Barrington Street, Suite 901 Halifax, NS, B3J 3Y6

ARTICLE A7 - QUANTITIES AND MEASUREMENT

.1 The quantities shown in Section 00 41 43 Tender Form - Schedule of Quantities and Unit Prices are estimated.

.2 Measurement for the actual quantities used to determine payments and Contract Price shall be in accordance with Section 01 22 00 - Measurement and Payment.

ARTICLE A8 - SUCCESSION

The aforesaid Contract Documents are to be read into and form part of the Agreement and the whole shall constitute the Contract between the parties and subject to law and the provisions of the Contract Documents shall enure to the benefit of and be binding upon the parties hereto, their respective heirs, legal representatives, successors and assigns.

ARTICLE A9 - RIGHTS AND REMEDIES

No action or failure to act by the Owner, Engineer, or Contractor shall constitute a waiver of any right or duty afforded any of them under the Contract, nor shall any such action or failure to act constitute an approval of or acquiescence in any breach thereunder, except as may be specifically agreed in writing.

ARTICLE A10 - TIME

Time shall be construed as being of the essence of the Contract.

In witness whereof the parties hereto have executed this Agreement and by the hands of their duly authorized representatives.

SIGNED AND DELIVERED
In the presence of:

OWNER

Municipality of the County of Cumberland
Name of Owner

WITNESS

Signature

Name and Title of Person Signing

Signature

Name and Title of Person Signing

Signature

Name and Title of Person Signing

CONTRACTOR

Name of Contractor

WITNESS

Signature

Name and Title of Person Signing

Signature

Name and Title of Person Signing

Signature

Name and Title of Person Signing

N.B. Where legal jurisdiction, local practice or Owner or Contractor requirements calls for (a) proof of authority to execute this document, attach such proof of authority in the form of a certified copy of a resolution naming the representative(s) authorized to sign the Agreement for and on behalf of the corporation or partnership; or (b) the affixing of a corporate seal, this Agreement should be properly sealed.

END

Standard construction document CCDC

18
2001

civil works contract

Project:



Canadian Construction Documents Committee

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CCDC 18 is the product of a consensus-building process aimed at balancing the interests of all parties on the construction project. It reflects recommended industry practices. CCDC 18 can have important consequences. The CCDC and its constituent member organizations do not accept any responsibility or liability for loss or damage which may be suffered as a result of the use or interpretation of CCDC 18.

AGREEMENT BETWEEN OWNER AND CONTRACTOR

This Agreement made on the ____ day of _____ in the year _____.

by and between

_____

hereinafter called the *"Owner"*

and

_____

hereinafter called the *"Contractor"*

The *Owner* and the *Contractor* agree as follows:

ARTICLE A-1 THE WORK

The *Contractor* shall:

1.1 perform the *Work* required by the *Contract Documents* for _____

_____

insert above the title of the Work

located at _____

insert above the Place of the Work

for which the Agreement has been signed by the parties, and for which _____

_____

insert above the name of the Consultant

is acting as and is hereinafter called the *"Consultant"* and

1.2 do and fulfill everything indicated by the *Contract Documents*, and

1.3 commence the *Work* by the ____ day of _____ in the year _____ and, subject to adjustment in *Contract Time* as provided for in the *Contract Documents*, attain *Substantial Performance of the Work*, by the ____ day of _____ in the year _____

ARTICLE A-2 AGREEMENTS AND AMENDMENTS

2.1 The *Contract* supersedes all prior negotiations, representations, or agreements, either written or oral, relating in any manner to the *Work*, including the bidding documents that are not expressly listed in Article A-3 of the Agreement - CONTRACT DOCUMENTS.

2.2 The *Contract* may be amended only as provided in the *Contract Documents*.

ARTICLE A-3 CONTRACT DOCUMENTS

3.1 The following are the *Contract Documents* referred to in Article A-1 of the Agreement - THE WORK:

- Agreement Between *Owner* and *Contractor*
- Definitions
- The General Conditions of the Contract
- *

* *(Insert here, attaching additional pages if required, a list identifying all other Contract Documents e.g.:*

- *Supplementary Conditions;*
- *Schedule of Prices;*
- *Specifications, giving a list of contents with section numbers and titles, number of pages, and date;*
- *Drawings, giving drawing number, title, date, revision date or mark;*
- *Addenda, giving title, number, date;*
- *Information documents, or parts thereof, to be incorporated in the Contract Documents identifying them by title, date, name of preparer and, if not included in their entirety, the page or sheet numbers to be included).*

ARTICLE A-4 CONTRACT PRICE

4.1 * *Unit Prices* form the basis for payment of the *Contract Price*. Quantities in the *Schedule of Prices* are estimated. The estimated *Contract Price*, which is the total extended amount indicated in the *Schedule of Prices*, is:

OR

* A lump sum stipulated price forms the basis for payment of the *Contract Price*. The *Contract Price* is:

* *(Strike out inapplicable paragraph)*

_____

_____ /100 dollars $ _____

4.2 All amounts are in Canadian funds and exclude Value Added Taxes.

4.3 These amounts shall be subject to adjustments as provided in the *Contract Documents*.

ARTICLE A-5 PAYMENT

5.1 Subject to the provisions of the *Contract Documents*, and in accordance with legislation and statutory regulations respecting holdback percentages and, where such legislation or regulations do not exist or apply, subject to a holdback of _____ percent (_____%), the *Owner* shall in Canadian funds:

.1 make progress payments to the *Contractor* on account of the *Contract Price* when due in the amount certified by the *Consultant* together with such *Value Added Taxes* as may be applicable to such payment, and

.2 upon *Substantial Performance of the Work*, pay to the *Contractor* the unpaid balance of the holdback amount when due together with such *Value Added Taxes* as may be applicable to such payment, and

.3 upon the issuance of the final certificate for payment, pay to the *Contractor* the unpaid balance of the *Contract Price* when due together with such *Value Added Taxes* as may be applicable to such payment.

5.2 In the event of loss or damage occurring where payment becomes due under the property and boiler insurance policies, payments shall be made to the *Contractor* in accordance with the provisions of GC 11.1 - INSURANCE.

5.3 Interest

.1 Should either party fail to make payments as they become due under the terms of the *Contract* or in an award by arbitration or court, interest at two percent (2%) per annum above the prime rate on such unpaid amounts shall also become due and payable until payment. Such interest shall be compounded and adjusted on a monthly basis. The prime rate shall be the rate of interest quoted by _____ for prime business loans. *(Insert name of chartered lending institution whose prime rate is to be used)*

.2 Interest shall apply at the rate and in the manner prescribed by paragraph 5.3.1 of this Article on the settlement amount of any claim in dispute that is resolved either pursuant to Part 8 of the General Conditions - DISPUTE RESOLUTION or otherwise, from the date the amount would have been due and payable under the *Contract*, had it not been in dispute, until it is paid.

ARTICLE A-6 RECEIPT OF AND ADDRESSES FOR NOTICES

6.1 Notices in writing between the parties or between them and the *Consultant* shall be considered to have been received by the addressee on the date of delivery if delivered to the individual, or to a member of the firm, or to an officer of the corporation for whom they are intended by hand or by registered post; or if sent by regular post, to have been delivered within 5 *Working Days* of the date of mailing when addressed as follows:

The *Owner* at _____

_____
street and number and postal box number if applicable

_____
post office or district, province or territory, postal code

The *Contractor* at _____

_____
street and number and postal box number if applicable

_____
post office or district, province or territory, postal code

The *Consultant* at _____

_____
street and number and postal box number if applicable

_____
post office or district, province or territory, postal code

ARTICLE A-7 LANGUAGE OF THE CONTRACT

7.1 When the *Contract Documents* are prepared in both the English and French languages, it is agreed that in the event of any apparent discrepancy between the English and French versions, the English/French* language shall prevail.
* *(Complete this statement by striking out inapplicable term)*

7.2 This Agreement is drawn in English at the request of the parties hereto. La présente convention est rédigée en anglais à la demande des parties.

ARTICLE A-8 SUCCESSION

8.1 The *Contract* shall enure to the benefit of and be binding upon the parties hereto, their respective heirs, legal representatives, successors, and assigns.

In witness whereof the parties hereto have executed this Agreement by the hands of their duly authorized representatives.

SIGNED AND DELIVERED
in the presence of:

Owner

_____
name of Owner

_____
signature

WITNESS

_____
name and title of person signing

_____
signature

_____
signature

_____
name and title of person signing

_____
name and title of person signing

Contractor

_____
name of Contractor

_____
signature

WITNESS

_____
name and title of person signing

_____
signature

_____
signature

_____
name and title of person signing

_____
name and title of person signing

N.B. *Where legal jurisdiction, local practice, or Owner or Contractor requirement calls for:*

(a) proof of authority to execute this document, attach such proof of authority in the form of a certified copy of a resolution naming the representative(s) authorized to sign the Agreement for and on behalf of the corporation or partnership; or

(b) the affixing of a corporate seal, this Agreement should be properly sealed.

DEFINITIONS

The following definitions shall apply to all *Contract Documents*.

1. **Change Directive**
A *Change Directive* is a written instruction prepared by the *Consultant* and signed by the *Owner* directing the *Contractor* to proceed with a change in the *Work* within the general scope of the *Contract Documents* prior to the *Owner* and the *Contractor* agreeing upon an adjustment in *Contract Price* and *Contract Time* .

2. **Change Order**
A *Change Order* is a written amendment to the *Contract* prepared by the *Consultant* and signed by the *Owner* and the *Contractor* stating their agreement upon:
- a change in the *Work*;
- the method of adjustment or the amount of the adjustment in the *Contract Price*, if any; and
- the extent of the adjustment in the *Contract Time*, if any.

3. **Construction Equipment**
Construction Equipment means all machinery and equipment, either operated or not operated, that is required for preparing, fabricating, conveying, erecting, or otherwise performing the *Work* but is not incorporated into the *Work*.

4. **Consultant**
The *Consultant* is the person or entity identified as such in the Agreement. The *Consultant* is the Engineer or other entity licensed to practise in the province or territory of the *Place of the Work*. The term *Consultant* means the *Consultant* or the *Consultant*'s authorized representative.

5. **Contract**
The *Contract* is the undertaking by the parties to perform their respective duties, responsibilities, and obligations as prescribed in the *Contract Documents* and represents the entire agreement between the parties.

6. **Contract Documents**
The *Contract Documents* consist of those documents listed in Article A-3 of the Agreement - CONTRACT DOCUMENTS and amendments agreed upon between the parties.

7. **Contract Price**
When *Unit Prices* form the basis of payment, the *Contract Price* is the sum of the product of each *Unit Price* stated in the *Schedule of Prices* multiplied by the appropriate actual quantity of each item that is incorporated in or made necessary by the Work, plus lump sums, if any, and allowances, if any, stated in the *Schedule of Prices*. When a lump sum stipulated price forms the basis of payment, the *Contract Price* is the amount stipulated in Article A-4 of the Agreement - CONTRACT PRICE.

8. **Contract Time**
The *Contract Time* is the time stipulated in paragraph 1.3 of Article A-1 of the Agreement - THE WORK from commencement of the *Work* to *Substantial Performance of the Work*.

9. **Contractor**
The *Contractor* is the person or entity identified as such in the Agreement. The term *Contractor* means the *Contractor* or the *Contractor*'s authorized representative as designated to the *Owner* in writing.

10. **Drawings**
The *Drawings* are the graphic and pictorial portions of the *Contract Documents*, wherever located and whenever issued, showing the design, location, and dimensions of the *Work*, generally including plans, elevations, sections, details, schedules, and diagrams.

11. **Owner**
The *Owner* is the person or entity identified as such in the Agreement. The term *Owner* means the *Owner* or the *Owner*'s authorized agent or representative as designated to the *Contractor* in writing, but does not include the *Consultant*.

12. **Place of the Work**
The *Place of the Work* is the designated site or location of the *Work* identified in the *Contract Documents*.

13. Product
Product or *Products* means material, machinery, equipment, and fixtures forming the *Work*, but does not include *Construction Equipment*.

14. Project
The *Project* means the total construction contemplated of which the *Work* may be the whole or a part.

15. Provide
Provide means to supply and install.

16. Schedule of Prices
The *Schedule of Prices* is the schedule listed in Article A-3 - CONTRACT DOCUMENTS identifying items of work, estimated quantities, units of measure, and *Unit Prices*.

17. Shop Drawings
Shop Drawings are drawings, diagrams, illustrations, schedules, performance charts, brochures, *Product* data, and other data which the *Contractor* provides to illustrate details of portions of the *Work*.

18. Specifications
The *Specifications* are that portion of the *Contract Documents*, wherever located and whenever issued, consisting of the written requirements and standards for *Products*, systems, workmanship, and the services necessary for the performance of the *Work*.

19. Subcontractor
A *Subcontractor* is a person or entity having a direct contract with the *Contractor* to perform a part or parts of the *Work*, or to supply *Products* worked to a special design for the *Work*.

20. Substantial Performance of the Work
Substantial Performance of the Work is as defined in the lien legislation applicable to the *Place of the Work*. If such legislation is not in force or does not contain such definition, or if the *Work* is governed by the Civil Code of Quebec, *Substantial Performance of the Work* shall have been reached when the *Work* is ready for use or is being used for the purpose intended and is so certified by the *Consultant*.

21. Supplemental Instruction
A *Supplemental Instruction* is an instruction, not involving adjustment in the *Contract Price* or *Contract Time*, in the form of *Specifications*, *Drawings*, schedules, samples, models, or written instructions, consistent with the intent of the *Contract Documents*. It is to be issued by the *Consultant* to supplement the *Contract Documents* as required for the performance of the *Work*.

22. Supplier
A *Supplier* is a person or entity having a direct contract with the *Contractor* to supply *Products* not worked to a special design for the *Work*.

23. Temporary Work
Temporary Work means temporary supports, structures, facilities, services, and other temporary things, excluding *Construction Equipment*, required for the execution of the *Work* but not incorporated into the *Work*.

24. Unit Price
A *Unit Price* is the amount payable for a single unit of work as stated in the *Schedule of Prices*.

25. Value Added Taxes
Value Added Taxes means such sum as shall be levied upon the *Contract Price* by the Federal or any Provincial or Territorial Government and is computed as a percentage of the *Contract Price* and includes the Goods and Services Tax, the Quebec Sales Tax, the Harmonized Sales Tax, and any similar tax, the collection and payment of which is by the *Contractor* as imposed by the tax legislation.

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

27. Working Day
Working Day means a day other than a Saturday, Sunday, statutory holiday or statutory vacation day that is observed by the construction industry in the area of the *Place of the Work*.

GENERAL CONDITIONS OF THE CIVIL WORKS CONTRACT

PART 1 GENERAL PROVISIONS

GC 1.1 CONTRACT DOCUMENTS

1.1.1 The intent of the *Contract Documents* is to include the labour, *Products*, and services necessary for the performance of the *Work* by the *Contractor* in accordance with these documents. It is not intended, however, that the *Contractor* shall supply products or perform work not consistent with, not covered by, or not properly inferable from the *Contract Documents*.

1.1.2 Except for the provisions of article 12.3.6, nothing contained in the *Contract Documents* shall create any contractual relationship between:
.1 the *Owner* and a *Subcontractor*, a *Supplier*, or their agent, employee, or other person performing any of the *Work*.
.2 the *Consultant* and the *Contractor*, a *Subcontractor*, a *Supplier*, or their agent, employee, or other person performing any of the *Work*.

1.1.3 The *Contract Documents* are complementary, and what is required by any one shall be as binding as if required by all.

1.1.4 Words and abbreviations which have well known technical or trade meanings are used in the *Contract Documents* in accordance with such recognized meanings.

1.1.5 References in the *Contract Documents* to the singular shall be considered to include the plural as the context requires.

1.1.6 Neither the organization of the *Specifications* nor the arrangement of *Drawings* shall control the *Contractor* in dividing the work among *Subcontractors* and *Suppliers*.

1.1.7 If there is a conflict within the *Contract Documents*:
.1 the order of priority of documents, from highest to lowest, shall be
- the Agreement between the *Owner* and the *Contractor*,
- the Definitions,
- Supplementary Conditions,
- the General Conditions,
- the *Specifications*,
- material and finishing schedules,
- the *Drawings*.

.2 *Drawings* of larger scale shall govern over those of smaller scale of the same date.
.3 dimensions shown on *Drawings* shall govern over dimensions scaled from *Drawings*.
.4 later dated documents shall govern over earlier documents of the same type.

1.1.8 The *Owner* shall provide the *Contractor*, without charge, sufficient copies of the *Contract Documents* to perform the *Work*.

1.1.9 *Specifications*, *Drawings*, models, and copies thereof furnished by the *Consultant* are and shall remain the *Consultant*'s property, with the exception of the signed *Contract* sets, which shall belong to each party to the *Contract*. All *Specifications*, *Drawings*, and models furnished by the *Consultant* are to be used only with respect to the *Work* and are not to be used on other work. These *Specifications*, *Drawings*, and models are not to be copied or altered in any manner without the written authorization of the *Consultant*.

1.1.10 Models furnished by the *Contractor* at the *Owner*'s expense are the property of the *Owner*.

GC 1.2 LAW OF THE CONTRACT

1.2.1 The law of the *Place of the Work* shall govern the interpretation of the *Contract*.

GC 1.3 RIGHTS AND REMEDIES

1.3.1 Except as expressly provided in the *Contract Documents*, the duties and obligations imposed by the *Contract Documents* and the rights and remedies available thereunder shall be in addition to and not a limitation of any duties, obligations, rights, and remedies otherwise imposed or available by law.

1.3.2 No action or failure to act by the *Owner*, *Consultant*, or *Contractor* shall constitute a waiver of any right or duty afforded any of them under the *Contract*, nor shall any such action or failure to act constitute an approval of or acquiescence in any breach thereunder, except as may be specifically agreed in writing.

GC 1.4 ASSIGNMENT

1.4.1 Neither party to the *Contract* shall assign the *Contract* or a portion thereof without the written consent of the other, which consent shall not be unreasonably withheld.

PART 2 ADMINISTRATION OF THE CONTRACT

GC 2.1 AUTHORITY OF THE CONSULTANT

2.1.1 The *Consultant* will have authority to act on behalf of the *Owner* only to the extent provided in the *Contract Documents*, unless otherwise modified by written agreement as provided in paragraph 2.1.2.

2.1.2 The duties, responsibilities, and limitations of authority of the *Consultant* as set forth in the *Contract Documents* shall be modified or extended only with the written consent of the *Owner*, the *Contractor*, and the *Consultant*.

2.1.3 If the *Consultant*'s employment is terminated, the *Owner* shall immediately appoint or reappoint a *Consultant* against whom the *Contractor* makes no reasonable objection and whose status under the *Contract Documents* shall be that of the former *Consultant*.

GC 2.2 ROLE OF THE CONSULTANT

2.2.1 The *Consultant* will provide administration of the *Contract* as described in the *Contract Documents* during construction until issuance of the final certificate for payment, and subject to GC 2.1 - AUTHORITY OF THE CONSULTANT and with the *Owner*'s concurrence, from time to time until the completion of any correction of defects as provided in paragraph 12.3.3 of GC 12.3 - WARRANTY.

2.2.2 The *Consultant* may provide at the *Place of the Work*, one or more project representatives to assist in carrying out the *Consultant*'s responsibilities. The duties, responsibilities, and limitations of authority of such project representatives shall be as set forth in writing to the *Contractor*.

2.2.3 The *Consultant* will review the *Work* at intervals appropriate to the progress of construction to:
.1 become familiar with the progress and quality of the *Work*,
.2 determine if the *Work* is proceeding in general conformity with the *Contract Documents*, and
.3 verify quantities of *Work* performed under a *Schedule of Prices*.

2.2.4 Based on the *Consultant*'s observations and evaluation of the *Contractor*'s applications for payment, the *Consultant* will determine the amounts owing to the *Contractor* under the *Contract* and will issue certificates for payment as provided in Article A-5 of the Agreement - PAYMENT, GC 5.6 - PROGRESS PAYMENT, and GC 5.10 - FINAL PAYMENT.

2.2.5 The *Consultant* will not be responsible for and will not have control, charge, or supervision of construction means, methods, techniques, sequences, or procedures, or for safety precautions and programs required in connection with the *Work* in accordance with the applicable construction safety legislation, other regulations, or general construction practice. The *Consultant* will not be responsible for the *Contractor*'s failure to carry out the *Work* in accordance with the *Contract Documents*. The *Consultant* will not have control over, charge of, or be responsible for the acts or omissions of the *Contractor*, *Subcontractors*, *Suppliers*, or their agents, employees, or any other persons performing portions of the *Work*.

2.2.6 The *Consultant* will be, in the first instance, the interpreter of the requirements of the *Contract Documents* and shall make findings as to the performance thereunder by both parties to the *Contract*, except with respect to GC 5.1 - FINANCING INFORMATION REQUIRED OF THE OWNER. Interpretations and findings of the *Consultant* shall be consistent with the intent of the *Contract Documents*. When making such interpretations and findings the *Consultant* will not show partiality to either the *Owner* or the *Contractor*.

2.2.7 Matters in question relating to the performance of the Work or the interpretation of the *Contract Documents*, except for GC 5.1 FINANCING INFORMATION REQUIRED OF THE OWNER, shall be referred initially to the *Consultant* by notice in writing given to the *Consultant* and to the other party for the *Consultant*'s interpretation and finding which will be given by notice in writing to the parties within a reasonable time. With respect to claims, the *Consultant* will make findings as set out in GC 6.6 - CLAIMS, paragraph 6.6.5.

2.2.8 The *Consultant* will have authority to reject work which in the *Consultant*'s opinion does not conform to the requirements of the *Contract Documents*. Whenever the *Consultant* considers it necessary or advisable, the *Consultant* will have authority to require inspection or testing of work, whether or not such work is fabricated, installed, or completed. However, neither the authority of the *Consultant* to act nor any decision either to exercise or not to exercise such authority shall give rise to any duty or responsibility of the *Consultant* to the *Contractor*, *Subcontractors*, *Suppliers*, or their agents, employees, or other persons performing any of the *Work*.

2.2.9 During the progress of the *Work* the *Consultant* will furnish *Supplemental Instructions* to the *Contractor* with reasonable promptness or in accordance with a schedule for such instructions agreed to by the *Consultant* and the *Contractor*.

2.2.10 The *Consultant* will review and take appropriate action upon such *Contractor*'s submittals as *Shop Drawings*, *Product* data, and samples, as provided in the *Contract Documents*.

2.2.11 The *Consultant* will prepare *Change Orders* and *Change Directives* as provided in GC 6.2 - CHANGE ORDER and GC 6.3 - CHANGE DIRECTIVE.

2.2.12 The *Consultant* will conduct reviews of the *Work* to determine the date of *Substantial Performance of the Work* as provided in GC 5.7 - SUBSTANTIAL PERFORMANCE OF THE WORK.

2.2.13 All certificates issued by the *Consultant* will be to the best of the *Consultant*'s knowledge, information, and belief. By issuing any certificate, the *Consultant* does not guarantee the *Work* is correct or complete.

2.2.14 The *Consultant* will receive and review written warranties and related documents required by the *Contract* and provided by the *Contractor* and will forward such warranties and documents to the *Owner* for the *Owner*'s acceptance.

GC 2.3 REVIEW AND INSPECTION OF THE WORK

2.3.1 The *Owner* and the *Consultant* shall have access to the *Work* at all times. The *Contractor* shall provide sufficient, safe, and proper facilities at all times for the review of the *Work* by the *Consultant* and the inspection of the *Work* by authorized agencies. If parts of the *Work* are in preparation at locations other than the *Place of the Work*, the *Owner* and the *Consultant* shall be given access to such work whenever it is in progress.

2.3.2 If work is designated for tests, inspections, or approvals in the *Contract Documents*, or by the *Consultant*'s instructions, or the laws or ordinances of the *Place of the Work*, the *Contractor* shall give the *Consultant* reasonable notice of when the work will be ready for review and inspection. The *Contractor* shall arrange for and shall give the *Consultant* reasonable notice of the date and time of inspections by other authorities.

2.3.3 The *Contractor* shall furnish promptly to the *Consultant* two copies of certificates and inspection reports relating to the *Work*.

2.3.4 If the *Contractor* covers, or permits to be covered, work that has been designated for special tests, inspections, or approvals before such special tests, inspections, or approvals are made, given or completed, the *Contractor* shall, if so directed, uncover such work, have the inspections or tests satisfactorily completed, and make good covering work at the *Contractor*'s expense.

2.3.5 The *Consultant* may order any portion or portions of the *Work* to be examined to confirm that such work is in accordance with the requirements of the *Contract Documents*. If the work is not in accordance with the requirements of the *Contract Documents*, the *Contractor* shall correct the work and pay the cost of examination and correction. If the work is in accordance with the requirements of the *Contract Documents*, the *Owner* shall pay the cost of examination and restoration.

2.3.6 The *Contractor* shall pay the cost of making any test or inspection, including the cost of samples required for such test or inspection, if such test or inspection is designated in the *Contract Documents* to be performed by the *Contractor* or is designated by the laws or ordinances of the *Place of the Work*.

2.3.7 The *Contractor* shall pay the cost of samples required for any test or inspection to be performed by the *Consultant* or the *Owner* if such test or inspection is designated in the *Contract Documents*.

GC 2.4 DEFECTIVE WORK

2.4.1 The *Contractor* shall promptly remove from the *Place of the Work* and replace or re-execute defective work that has been rejected by the *Consultant* as failing to conform to the *Contract Documents* whether or not the defective work has been incorporated in the *Work* and whether or not the defect is the result of poor workmanship, use of defective products, or damage through carelessness or other act or omission of the *Contractor*.

2.4.2 The *Contractor* shall make good promptly other contractors' work destroyed or damaged by such removals or replacements at the *Contractor*'s expense.

2.4.3 If in the opinion of the *Consultant* it is not expedient to correct defective work or work not performed as provided in the *Contract Documents*, the *Owner* may deduct from the amount otherwise due to the *Contractor* the difference in value between the work as performed and that called for by the *Contract Documents*. If the *Owner* and the *Contractor* do not agree on the difference in value, they shall refer the matter to the *Consultant* for a determination.

PART 3 EXECUTION OF THE WORK

GC 3.1 CONTROL OF THE WORK

3.1.1 The *Contractor* shall have total control of the *Work* and shall effectively direct and supervise the *Work* so as to ensure conformity with the *Contract Documents*.

3.1.2 The *Contractor* shall be solely responsible for construction means, methods, techniques, sequences, and procedures and for co-ordinating the various parts of the *Work* under the *Contract*.

GC 3.2 CONSTRUCTION BY OWNER OR OTHER CONTRACTORS

3.2.1 The *Owner* reserves the right to award separate contracts in connection with other parts of the *Project* to other contractors and to perform work with own forces.

3.2.2 When separate contracts are awarded for other parts of the *Project*, or when work is performed by the *Owner*'s own forces, the *Owner* shall:

.1 provide for the co-ordination of the activities and work of other contractors and *Owner*'s own forces with the *Work* of the *Contract*;

.2 assume overall responsibility for compliance with the applicable health and construction safety legislation at the *Place of the Work*;

.3 enter into separate contracts with other contractors under conditions of contract which are compatible with the conditions of the *Contract*;

.4 ensure that insurance coverage is provided to the same requirements as are called for in GC 11.1 - INSURANCE and co-ordinate such insurance with the insurance coverage of the *Contractor* as it affects the *Work*; and

.5 take all reasonable precautions to avoid labour disputes or other disputes on the *Project* arising from the work of other contractors or the *Owner*'s own forces.

3.2.3 When separate contracts are awarded for other parts of the *Project*, or when work is performed by the *Owner*'s own forces, the *Contractor* shall:

.1 afford the *Owner* and other contractors reasonable opportunity to introduce and store products and use the *Owner*'s or other contractor's construction equipment to execute their work;

.2 cooperate with other contractors and the *Owner* in reviewing their construction schedules; and

.3 where part of the *Work* is affected by or depends upon for its proper execution the work of other contractors or *Owner*'s own forces, promptly report to the *Consultant* in writing and prior to proceeding with that part of the *Work*, any apparent deficiencies in such work

3.2.4 Where the *Contract Documents* identify the work to be performed by other contractors or the *Owner*'s own forces, the *Contractor* shall coordinate and schedule the *Work* with the work of other contractors and the *Owner*'s own forces and interface as specified in the *Contract Documents*.

3.2.5 Where a change in the *Work* is required as a result of the co-ordination and interface of the work of other contractors or *Owner*'s own forces with the *Work*, the changes shall be authorized and valued as provided in GC 6.1 - CHANGES, GC 6.2 - CHANGE ORDER, and GC 6.3 - CHANGE DIRECTIVE.

3.2.6 Disputes, and other matters in question between the *Contractor* and other contractors shall be dealt with as provided in Part 8 of the General Conditions - DISPUTE RESOLUTION provided the other contractors have reciprocal obligations. The *Contractor* shall be deemed to have consented to arbitration of any dispute with any other contractor whose contract with the *Owner* contains a similar agreement to arbitrate.

GC 3.3 TEMPORARY WORK

3.3.1 The *Contractor* shall have the sole responsibility for the design, erection, operation, maintenance, and removal of *Temporary Work.*

3.3.2 The *Contractor* shall engage and pay for registered professional engineering personnel skilled in the appropriate disciplines to perform those functions referred to in paragraph 3.3.1 where required by law or by the *Contract Documents* and in all cases where such *Temporary Work* is of such a nature that professional engineering skill is required to produce safe and satisfactory results.

3.3.3 Notwithstanding the provisions of GC 3.1 - CONTROL OF THE WORK, paragraph 3.3.1, and paragraph 3.3.2 or provisions to the contrary elsewhere in the *Contract Documents* where such *Contract Documents* include designs for *Temporary Work* or specify a method of construction in whole or in part, such designs or methods of construction 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 as for the execution of the *Work.*

GC 3.4 DOCUMENT REVIEW

3.4.1 The *Contractor* shall review the *Contract Documents* and shall report promptly to the *Consultant* any error, inconsistency, or omission the *Contractor* may discover. Such review by the *Contractor* shall be to the best of the *Contractor*'s knowledge, information, and belief and in making such review the *Contractor* does not assume any responsibility to the *Owner* or the *Consultant* for the accuracy of the review. The *Contractor* shall not be liable for damage or costs resulting from such errors, inconsistencies, or omissions in the *Contract Documents,* which the *Contractor* did not discover. If the *Contractor* does discover any error, inconsistency, or omission in the *Contract Documents*, the *Contractor* shall not proceed with the work affected until the *Contractor* has received corrected or missing information from the *Consultant.*

GC 3.5 CONSTRUCTION SCHEDULE

3.5.1 The *Contractor* shall:

.1 prepare and submit to the *Owner* and the *Consultant* prior to the first application for payment, a construction schedule that indicates the timing of the major activities of the *Work* and provides sufficient detail of the critical events and their inter-relationship to demonstrate the *Work* will be performed in conformity with the *Contract Time*;

.2 monitor the progress of the *Work* relative to the construction schedule and update the schedule on a monthly basis or as stipulated by the *Contract Documents*; and

.3 advise the *Consultant* of any revisions required to the schedule as the result of extensions of the *Contract Time* as provided in Part 6 of the General Conditions - CHANGES IN THE WORK.

GC 3.6 SUPERVISION

3.6.1 The *Contractor* shall provide all necessary supervision and appoint a competent representative who shall be in attendance at the *Place of the Work* while the *Work* is being performed. The appointed representative shall not be changed except for valid reason.

3.6.2 The appointed representative shall represent the *Contractor* at the *Place of the Work* and notices and instructions given to the appointed representative by the *Consultant* shall be held to have been received by the *Contractor*.

GC 3.7 LAYOUT OF THE WORK

3.7.1 The *Owner* shall, in consultation with the Contractor, establish reference points for construction which are necessary for the *Contractor* to proceed with the *Work*.

3.7.2 The *Contractor* shall be responsible for laying out the *Work*, shall preserve and protect the established reference points, and shall not change or relocate the established reference points without the approval of the *Consultant*.

3.7.3 The *Contractor* shall advise the *Consultant* whenever any established reference point is lost, destroyed, damaged, or requires relocation as a result of the *Contractor*'s operations. The cost to reestablish any reference point that is lost, destroyed, damaged, or requires relocation as a result of the *Contractor*'s operations, shall be at the *Contractor*'s expense.

GC 3.8 SUBCONTRACTORS AND SUPPLIERS

3.8.1 The *Contractor* shall preserve and protect the rights of the parties under the *Contract* with respect to work to be performed under subcontract, and shall:

.1 enter into contracts or written agreements with *Subcontractors* and *Suppliers* to require them to perform their work as provided in the *Contract Documents*;

.2 incorporate the terms and conditions of the *Contract Documents* into all contracts or written agreements with *Subcontractors* and *Suppliers*; and

.3 be as fully responsible to the *Owner* for acts and omissions of *Subcontractors*, *Suppliers*, and of persons directly or indirectly employed by them as for acts and omissions of persons directly employed by the *Contractor*.

3.8.2 The *Contractor* shall indicate in writing, at the request of the *Owner*, those *Subcontractors* or *Suppliers* whose bids have been received by the *Contractor* which the *Contractor* would be prepared to accept for the performance of a portion of the *Work*. Should the *Owner* not object before signing the *Contract*, the *Contractor* shall employ those *Subcontractors* or *Suppliers* so identified by the *Contractor* in writing for the performance of that portion of the *Work* to which their bid applies.

3.8.3 The *Owner* may, for reasonable cause, at any time before the *Owner* has signed the *Contract*, object to the use of a proposed *Subcontractor* or *Supplier* and require the *Contractor* to employ one of the other subcontract bidders.

3.8.4 If the *Owner* requires the *Contractor* to change a proposed *Subcontractor* or *Supplier*, the *Contract Price* and *Contract Time* shall be adjusted by the differences occasioned by such required change.

3.8.5 The *Contractor* shall not be required to employ as a *Subcontractor* or *Supplier*, a person or firm to which the *Contractor* may reasonably object.

3.8.6 The *Owner*, through the *Consultant*, may provide to a *Subcontractor* or *Supplier* information as to the percentage of the *Subcontractor*'s or *Supplier*'s work which has been certified for payment.

GC 3.9 LABOUR AND PRODUCTS

3.9.1 The *Contractor* shall provide and pay for labour, *Products*, tools, *Construction Equipment*, water, heat, light, power, transportation, and other facilities and services necessary for the performance of the *Work* in accordance with the *Contract*.

3.9.2 *Products* provided shall be new. *Products* which are not specified shall be of a quality consistent with those specified and their use acceptable to the *Consultant*.

3.9.3 The *Contractor* shall maintain good order and discipline among the *Contractor*'s employees engaged on the *Work* and shall not employ on the *Work* anyone not skilled in the tasks assigned.

GC 3.10 DOCUMENTS AT THE SITE

3.10.1 The *Contractor* shall keep one copy of current *Contract Documents*, submittals, reports, and records of meetings at the *Place of the Work*, in good order and available to the *Owner* and the *Consultant*.

GC 3.11 SHOP DRAWINGS

3.11.1 The *Contractor* shall provide *Shop Drawings* as required in the *Contract Documents*.

3.11.2 The *Contractor* shall review all *Shop Drawings* prior to submission to the *Consultant*. The *Contractor* represents by this review that:

.1 the *Contractor* has determined and verified all field measurements, field construction conditions, materials, *Product* requirements, catalogue numbers, and similar data or will do so; and

.2 the *Contractor* has checked and co-ordinated each *Shop Drawing* with the requirements of the *Contract Documents*.

3.11.3 The *Contractor* shall confirm the review of each shop drawing by stamp, date, and signature of the person responsible for the review. At the time of submission the *Contractor* shall notify the *Consultant* in writing of any deviations in the *Shop Drawings* from the requirements of the *Contract Documents*.

3.11.4 The *Contractor* shall submit *Shop Drawings* to the *Consultant* to review in orderly sequence and sufficiently in advance so as to cause no delay in the *Work* or in the work of other contractors. Upon request of the *Contractor* or the *Consultant*, they jointly shall prepare a schedule of the dates for submission and return of *Shop Drawings*. *Shop Drawings* which require approval of any legally constituted authority having jurisdiction shall be submitted to such authority by the *Contractor* for approval.

3.11.5 The *Contractor* shall submit *Shop Drawings* in the form specified or as the *Consultant* may direct. The *Consultant* will review and return *Shop Drawings* in accordance with the schedule agreed upon, or otherwise with reasonable promptness so as to cause no delay. The *Consultant*'s review is for conformity to the design concept and for general arrangement only. The *Consultant*'s review shall not relieve the *Contractor* of responsibility for errors or omissions in the *Shop Drawings* or for meeting all requirements of the *Contract Documents* unless the *Consultant* expressly notes the acceptance of a deviation on the *Shop Drawings*.

3.11.6 Upon the *Consultant*'s request, the *Contractor* shall revise and resubmit *Shop Drawings* which the *Consultant* rejects as inconsistent with the *Contract Documents* unless otherwise directed by the *Consultant*. The *Contractor* shall notify the *Consultant* in writing of any revisions to the resubmission other than those requested by the *Consultant*.

GC 3.12 USE OF THE WORK

3.12.1 The *Contractor* shall confine *Construction Equipment, Temporary Work*, storage of *Products*, waste products and debris, and operations of employees to limits indicated by laws, ordinances, permits, or the *Contract Documents* and shall not unreasonably encumber the *Place of Work* with *Products*.

3.12.2 The *Contractor* shall not load or permit to be loaded any part of the *Work* with a weight or force that will endanger the safety of the *Work*.

GC 3.13 CUTTING AND REMEDIAL WORK

3.13.1 The *Contractor* shall do the cutting and remedial work required to make the several parts of the *Work* come together properly.

3.13.2 The *Contractor* shall co-ordinate the *Work* to ensure that this requirement is kept to a minimum.

3.13.3 Should the *Owner*, the *Consultant*, other contractors or anyone employed by them be responsible for ill-timed work necessitating cutting or remedial work to be performed, the cost of such cutting or remedial work shall be valued as provided in GC 6.1 - CHANGES, GC 6.2 - CHANGE ORDER, and GC 6.3 - CHANGE DIRECTIVE.

3.13.4 Cutting and remedial work shall be performed by specialists familiar with the *Products* affected and shall be performed in a manner to neither damage nor endanger the *Work*.

GC 3.14 CLEANUP

3.14.1 The *Contractor* shall maintain the *Work* in a safe and tidy condition and free from the accumulation of waste products and debris, other than that caused by the *Owner*, other contractors or their employees.

3.14.2 Before applying for *Substantial Performance of the Work* as provided in GC 5.7 - SUBSTANTIAL PERFORMANCE OF THE WORK, the *Contractor* shall remove waste products and debris, other than that resulting from the work of the *Owner*, other contractors or their employees, and shall leave the *Work* clean and suitable for use or occupancy by the *Owner*. The *Contractor* shall remove products, tools, *Construction Equipment* and *Temporary Work* not required for the performance of the remaining work.

3.14.3 Prior to application for the final certificate for payment, the *Contractor* shall remove any remaining products, tools, *Construction Equipment, Temporary Work,* and waste products and debris, other than those resulting from the work of the *Owner*, other contractors or their employees.

PART 4 ALLOWANCES

GC 4.1 CASH ALLOWANCES

4.1.1 The *Contract Price* includes the cash allowances, if any, stated in the *Contract Documents*. The scope of work or costs included in such cash allowances shall be as described in the *Contract Documents*.

4.1.2 The *Contract Price*, and not the cash allowances, includes the *Contractor*'s overhead and profit in connection with such cash allowances.

4.1.3 Expenditures under cash allowances shall be authorized by the *Owner* through the *Consultant*.

4.1.4 Where costs under any cash allowance exceed the amount of the allowance, the *Contractor* shall be compensated for the excess incurred and substantiated plus an amount for overhead and profit on the excess as set out in the *Contract Documents*. Where costs under any cash allowance are less than the amount of the allowance, the *Owner* shall be credited for the unexpended portion of the cash allowance, but not for the *Contractor*'s overhead and profit on such amount. Multiple cash allowances shall not be combined for the purpose of calculating the foregoing.

4.1.5 The *Contract Price* shall be adjusted by *Change Order* to provide for any difference between the actual cost and each cash allowance.

4.1.6 The value of the work performed under a cash allowance is eligible to be included in progress payments.

4.1.7 The *Contractor* and the *Consultant* shall jointly prepare a schedule that shows when the *Consultant* and *Owner* must authorize ordering of items called for under cash allowances to avoid delaying the progress of the *Work*.

GC 4.2 CONTINGENCY ALLOWANCE

4.2.1 The *Contract Price* includes the contingency allowance, if any, stated in the *Contract Documents*.

4.2.2 Expenditures under the contingency allowance shall be authorized and valued as provided in GC 6.1 - CHANGES, GC 6.2 - CHANGE ORDER, and GC 6.3 - CHANGE DIRECTIVE.

4.2.3 The *Contract Price* shall be adjusted by *Change Order* to provide for any difference between the expenditures authorized under paragraph 4.2.2 and the contingency allowance.

PART 5 PAYMENT

GC 5.1 FINANCING INFORMATION REQUIRED OF THE OWNER

5.1.1 The *Owner* shall, at the request of the *Contractor*, before signing the *Contract*, and promptly from time to time thereafter, furnish to the *Contractor* reasonable evidence that financial arrangements have been made to fulfill the *Owner*'s obligations under the *Contract*.

5.1.2 The *Owner* shall notify the *Contractor* in writing of any material change in the *Owner*'s financial arrangements during performance of the *Contract*.

GC 5.2 BASIS OF PAYMENT FOR UNIT PRICE WORK

5.2.1 Payment for *Unit Price* work shall be based on the *Unit Prices* in the *Contract*.

5.2.2 The *Contractor* shall measure the *Work* and the *Consultant* will verify such measurements to determine payment to the *Contractor* in accordance with the measurement provisions of the *Contract Documents*.

GC 5.3 BASIS OF PAYMENT FOR LUMP SUM WORK

5.3.1 Payment for lump sum work shall be based on the stipulated price(s) in the *Contract*.

GC 5.4 BASIS OF PAYMENT FOR COST PLUS WORK

5.4.1 Payment for cost plus work shall be based on the cost of such work, as provided in paragraph 5.4.2, plus a fee calculated as a percentage of the cost of such work, for the *Contractor*'s overhead and profit. The percentage amount shall be as provided in the *Contract Documents* but shall not be applied to the cost of *Construction Equipment* when such cost is based on rates which already include the *Contractor*'s overhead and profit.

5.4.2 The cost of cost plus work shall be at rates prevailing in the locality of the *Place of the Work* and shall include the following cost elements as applicable to such work:

.1 wages and benefits paid for labour in the direct employ of the *Contractor* under applicable collective bargaining agreements, or under a salary or wage schedule agreed upon by the *Owner* and *Contractor*;

.2 salaries, wages, and benefits of the *Contractor*'s personnel, when stationed at the field office, in whatever capacity employed; or personnel at shops or on the road, engaged in expediting the production or transportation of materials or equipment;

.3 contributions, assessments, or taxes incurred for such items as employment insurance, provincial or territorial health insurance, workers' compensation, and Canada or Quebec Pension Plan, insofar as such cost is based on wages, salaries, or other remuneration paid to employees of the *Contractor* and included in the cost of the *Work* as provided in paragraphs 5.4.2.1 and 5.4.2.2:

.4 travel and subsistence expenses of the *Contractor*'s personnel described in paragraphs 5.4.2.1 and 5.4.2.2;

.5 the cost of all *Products* including cost of transportation thereof;

.6 the cost of materials, supplies, *Construction Equipment*, *Temporary Work*, and hand tools not owned by the workers, including transportation, and maintenance thereof, which are consumed in the performance of the *Work*; and cost less salvage value on such items used but not consumed, which remain the property of the *Contractor*;

.7 the cost of all tools and *Construction Equipment*, exclusive of hand tools used in the performance of the *Work*, whether rented from or provided by the *Contractor* or others, including installation, minor repairs and replacements, dismantling, removal, transportation and delivery cost thereof;

.8 deposits lost;

.9 the amounts of all subcontracts;

.10 the cost of quality assurance such as independent inspection and testing services;

.11 charges levied by authorities having jurisdiction at the *Place of the Work*;

.12 royalties, patent license fees, and damages for infringement of patents and cost of defending suits therefor subject always to the *Contractor*'s obligations to indemnify the *Owner* as provided in paragraph 10.3.1 of GC 10.3 - PATENT FEES;

.13 any adjustment in premiums for all bonds and insurance which the *Contractor* is required, by the *Contract Documents*, to purchase and maintain;

.14 any adjustment in taxes and duties for which the *Contractor* is liable;

.15 charges for long distance telephone and facsimile communications, courier services, expressage, and petty items incurred in relation to the performance of the *Work*;

.16 the cost of removal and disposal of waste products and debris; and

.17 cost incurred due to emergencies affecting the safety of persons or property.

5.4.3 The *Contractor* shall obtain the *Owner's* approval prior to subcontracting or entering into other agreements for cost plus work.

5.4.4 The *Consultant* may refuse to certify payment for all or part of the cost of any item under any cost element, where the item in question was unsuitable, unnecessary or the cost was otherwise improperly incurred in the performance of the Work.

5.4.5 The *Contractor* shall keep full and detailed accounts and records necessary for the documentation of the cost of cost plus work and shall provide the *Consultant* with copies thereof when requested.

5.4.6 The *Owner* shall be afforded reasonable access to all of the *Contractor*'s books, records, correspondence, instructions, drawings, receipts, vouchers, and memoranda related to the cost of cost plus work, and for this purpose the *Contractor* shall preserve such records for a period of one year from the date of *Substantial Performance of the Work*.

GC 5.5 APPLICATIONS FOR PROGRESS PAYMENT

5.5.1 Applications for payment on account as provided in Article A-5 of the Agreement - PAYMENT may be made monthly as the *Work* progresses.

5.5.2 Applications for payment shall be dated the last day of the agreed monthly payment period and the amount claimed shall be for the value, proportionate to the amount of the *Contract*, of work performed and *Products* delivered to the *Place of the Work* at that date.

5.5.3 Where the basis of payment of the *Contract Price* is *Unit Prices*, applications for payment shall include quantity measurements and any other data requested by the *Consultant* to assist the *Consultant* in evaluating the application and verifying quantity measurements.

5.5.4 Where the basis of payment of the *Contract Price* is a lump sum stipulated price:

.1 the *Contractor* shall submit to the *Consultant*, at least 10 *Working Days* before the first application for payment, a schedule of values for the parts of the *Work*, aggregating the total amount of the *Contract Price*, so as to facilitate evaluation of applications for payment;

.2 the schedule of values shall be made out in such form and supported by such evidence as the *Consultant* may reasonably direct and when accepted by the *Consultant*, shall be used as the basis for applications for payment, unless it is found to be in error; and

.3 the *Contractor* shall include a statement based on the schedule of values with each application for payment.

5.5.5 Where the basis of payment for a portion of the *Work* is cost plus, applications for payment shall be based on the cost of the work performed plus the amount of the fee earned, in accordance with GC 5.4 - BASIS OF PAYMENT FOR COST PLUS WORK.

5.5.6 Applications for payment for *Products* delivered to the *Place of the Work* but not yet incorporated into the *Work* shall be supported by such evidence as the *Consultant* may reasonably require to establish the value and delivery of the *Products*.

GC 5.6 PROGRESS PAYMENT

5.6.1 The *Consultant* will issue to the *Owner*, no later than 5 *Working Days* after the receipt of an application for payment from the *Contractor* submitted in accordance with GC 5.2 - APPLICATIONS FOR PROGRESS PAYMENT, a certificate for payment in the amount applied for or in such other amount as the *Consultant* determines to be properly due. If the *Consultant* amends the application, the *Consultant* will promptly notify the *Contractor* in writing giving reasons for the amendment.

5.6.2 The *Owner* shall make payment to the *Contractor* on account as provided in Article A-5 of the Agreement - PAYMENT no later than 5 *Working Days* after the date of a certificate for payment issued by the *Consultant*.

5.6.3 Where the basis of payment of the *Contract Price* is *Unit Prices*, quantities for progress payments shall be considered approximate until final verification of quantities by the *Consultant*. A certificate for progress payment shall not be construed as the *Consultant's* final verification of quantities. Final verification of quantities will be made after all work of an item is completed.

GC 5.7 SUBSTANTIAL PERFORMANCE OF THE WORK

5.7.1 When the *Contractor* considers that the *Work* is substantially performed, or if permitted by the lien legislation applicable to the *Place of the Work* a designated portion thereof which the *Owner* agrees to accept separately is substantially performed, the *Contractor* shall prepare and submit to the *Consultant* a comprehensive list of items to be completed or corrected and apply for a review by the *Consultant* to establish *Substantial Performance of the Work* or substantial performance of the designated portion of the *Work*. Failure to include an item on the list does not alter the responsibility of the *Contractor* to complete the *Contract*.

5.7.2 No later than 15 *Working Days* after the receipt of the *Contractor*'s list and application, the *Consultant* will review the *Work* to verify the validity of the application and notify the *Contractor* whether the *Work* or the designated portion of the *Work* is substantially performed.

5.7.3 The *Consultant* will state the date of *Substantial Performance of the Work* or designated portion of the *Work* in a certificate.

5.7.4 Immediately following the issuance of the certificate of *Substantial Performance of the Work*, the *Contractor*, in consultation with the *Consultant*, shall establish a reasonable date for finishing the *Work*.

GC 5.8 PAYMENT OF HOLDBACK UPON SUBSTANTIAL PERFORMANCE OF THE WORK

5.8.1 After the issuance of the certificate of *Substantial Performance of the Work*, the *Contractor* shall:

.1 submit an application for payment of the holdback amount,

.2 submit a sworn or affirmed statement that all accounts for labour, subcontracts, *Products*, *Construction Equipment*, and other indebtedness which may have been incurred by the *Contractor* in the *Substantial Performance of the Work* and for which the *Owner* might in any way be held responsible have been paid in full, except for amounts properly retained as a holdback or as an identified amount in dispute.

5.8.2 After the receipt of an application for payment from the *Contractor* and the sworn or affirmed statement as provided in paragraph 5.8.1, the *Consultant* will issue a certificate for payment of the holdback amount.

5.8.3 Where the holdback amount required by the applicable lien legislation has not been placed in a separate holdback account, the *Owner* shall, 5 *Working Days* prior to the expiry of the holdback period stipulated in the lien legislation applicable to the *Place of the Work*, place the holdback amount in a bank account in the joint names of the *Owner* and the *Contractor*.

5.8.4 In the common law jurisdictions, the holdback amount authorized by the certificate for payment of the holdback amount is due and payable on the day following the expiration of the holdback period stipulated in the lien legislation applicable to the *Place of the Work*. Where lien legislation does not exist or apply, the holdback amount shall be due and payable in accordance with other legislation, industry practice, or provisions which may be agreed to between the parties. The *Owner* may retain out of the holdback amount any sums required by law to satisfy any liens against the *Work* or, if permitted by the lien legislation applicable to the *Place of the Work*, other third party monetary claims against the *Contractor* which are enforceable against the *Owner*.

5.8.5 In the Province of Quebec, the holdback amount authorized by the certificate for payment of the holdback amount is due and payable no later than 30 days after the issuance of the certificate. The *Owner* may retain out of the holdback amount any sums required to satisfy any legal hypothecs that have been taken, or could be taken, against the *Work* or other third party monetary claims against the *Contractor* which are enforceable against the *Owner*.

GC 5.9 PROGRESSIVE RELEASE OF HOLDBACK

5.9.1 In the common law jurisdictions, where legislation permits and where, upon application by the *Contractor*, the *Consultant* has certified that the work of a *Subcontractor* or *Supplier* has been performed prior to *Substantial Performance of the Work*, the *Owner* shall pay the *Contractor* the holdback amount retained for such subcontract work, or the *Products* supplied by such *Supplier*, on the first *Working Day* following the expiration of the holdback period for such work stipulated in the lien legislation applicable to the *Place of the Work*.

5.9.2 In the Province of Quebec, where, upon application by the *Contractor*, the *Consultant* has certified that the work of a *Subcontractor* or *Supplier* has been performed prior to *Substantial Performance of the Work*, the *Owner* shall pay the *Contractor* the holdback amount retained for such subcontract work, or the *Products* supplied by such *Supplier*, no later than 30 days after such certification by the *Consultant*. The *Owner* may retain out of the holdback amount any sums required to satisfy any legal hypothecs that have been taken, or could be taken, against the *Work* or other third party monetary claims against the *Contractor* which are enforceable against the *Owner*.

5.9.3 Notwithstanding the provisions of the preceding paragraph, and notwithstanding the wording of such certificates, the *Contractor* shall ensure that such subcontract work or *Products* is protected pending the issuance of a final certificate for payment and be responsible for the correction of defects or work not performed regardless of whether or not such was apparent when such certificates were issued.

GC 5.10 FINAL PAYMENT

5.10.1 When the *Contractor* considers that the *Work* is completed, the *Contractor* shall submit an application for final payment.

5.10.2 The *Consultant* will, no later than 15 *Working Days* after the receipt of an application from the *Contractor* for final payment, review the *Work* to verify the validity of the application and notify the *Contractor* that the application is valid or give reasons why it is not valid.

5.10.3 When the *Consultant* finds the *Contractor*'s application for final payment valid, the *Consultant* will promptly issue a final certificate for payment.

5.10.4 Subject to the provision of paragraph 10.4.1 of GC 10.4 - WORKERS' COMPENSATION, and any lien legislation applicable to the *Place of the Work*, the *Owner* shall, no later than 5 *Working Days* after the issuance of a final certificate for payment, pay the *Contractor* as provided in Article A-5 of the Agreement - PAYMENT.

GC 5.11 WITHHOLDING OF PAYMENT

5.11.1 If because of climatic or other conditions reasonably beyond the control of the *Contractor*, there are items of work that cannot be performed, payment in full for that portion of the *Work* which has been performed as certified by the *Consultant* shall not be withheld or delayed by the *Owner* on account thereof, but the *Owner* may withhold, until the remaining portion of the *Work* is finished, only such an amount that the *Consultant* determines is sufficient and reasonable to cover the cost of performing such remaining work.

GC 5.12 NON-CONFORMING WORK

5.12.1 No payment by the *Owner* under the *Contract* nor partial or entire use or occupancy of the *Work* by the *Owner* shall constitute an acceptance of any portion of the *Work* or *Products* which are not in accordance with the requirements of the *Contract Documents*.

PART 6 CHANGES

GC 6.1 CHANGES

6.1.1 The *Owner*, through the *Consultant*, without invalidating the *Contract*, may make:
- .1 changes in the *Work* consisting of additions, deletions, or other revisions to the *Work* by *Change Order* or *Change Directive, and*
- .2 changes to the *Contract Time* for the *Work*, or any part thereof, by *Change Order*.

6.1.2 The *Contractor* shall not perform a change in the *Work* without a *Change Order* or a *Change Directive*.

GC 6.2 CHANGE ORDER

6.2.1 When a change in the *Work* or the *Contract Time* is proposed or required, the *Consultant* will provide notice in writing to the Contractor describing the proposed change. The *Contractor* shall present, in a form acceptable to the *Consultant*, a method of adjustment or an amount of adjustment of the *Contract Price*, if any, and the adjustment in the *Contract Time*, if any, for the proposed change.

6.2.2 The method of adjustment of the *Contract Price* presented by the *Contractor* may be:
- .1 *Unit Prices* listed in the *Schedule of Prices* that are applicable to the change in the *Work* or, if *Unit Prices* listed in the *Schedule of Prices* are not directly applicable, by unit prices deduced or extrapolated from such *Unit Prices*,
- .2 a lump sum or unit price quotation, or
- .3 the cost plus method as provided in GC 5.4 - BASIS OF PAYMENT FOR COST PLUS WORK.

6.2.3 When the *Owner* and *Contractor* agree to the adjustments in the *Contract Price* and *Contract Time* or to the method to be used to determine the adjustments, such agreement shall be effective immediately and shall be recorded in a *Change Order*, signed by *Owner* and *Contractor*. The value of the work performed as the result of a *Change Order* shall be included in applications for progress payment.

GC 6.3 CHANGE DIRECTIVE

6.3.1 If the *Owner* requires the *Contractor* to proceed with a change in the *Work* prior to the *Owner* and the *Contractor* agreeing upon the adjustment in *Contract Price* and *Contract Time*, the *Owner*, through the *Consultant*, shall issue a *Change Directive*.

6.3.2 A *Change Directive* shall only be used by the *Owner* to direct a change in the *Work* that is within the general scope of the *Contract Documents*.

6.3.3 Upon receipt of a *Change Directive*, the *Contractor* shall proceed promptly with the change in the *Work*.

6.3.4 The adjustment in the *Contract Price* for a change in the *Work* carried out by way of a *Change Directive* shall be on the basis of the *Contractor's* actual expenditures and savings attributable to the change. If a change in the *Work* results in expenditures only, the change in the *Work* shall be valued as cost plus work in accordance with GC 5.4 - BASIS OF PAYMENT FOR COST PLUS WORK.

6.3.5 If a change in the *Work* results in savings only, the amount of the credit shall be the actual cost savings to the *Contractor*, without deduction for overhead or profit.

6.3.6 If a change in the *Work* results in both expenditures and savings, the change in the *Work* shall be valued as specified in GC 6.3.4 and GC 6.3.5, except that overhead and profit on the cost plus work shall be payable only on the net increase, if any, with respect to that change in the Work.

6.3.7 Pending determination of the final amount of a *Change Directive*, the undisputed value of the work performed as the result of a *Change Directive* is eligible to be included in progress payments.

6.3.8 If the *Owner* and *Contractor* do not agree on the proposed adjustment in the *Contract Time* or the method of determining it, the adjustment shall be referred to the *Consultant* for determination.

6.3.9 If at any time after the start of the work directed by a *Change Directive*, the *Owner* and the *Contractor* reach agreement on the adjustment to the *Contract Price* and to the *Contract Time*, this agreement shall be recorded in a *Change Order* signed by *Owner* and *Contractor*.

GC 6.4 CONCEALED OR UNKNOWN CONDITIONS

6.4.1 If the *Owner* or the *Contractor* discover conditions at the *Place of the Work* which are:

.1 subsurface or otherwise concealed physical conditions which existed before the commencement of the *Work* which differ materially from those indicated in the *Contract Documents*; or

.2 physical conditions, other than conditions due to weather, that are of a nature which differ materially from those ordinarily found to exist and generally recognized as inherent in construction activities of the character provided for in the *Contract Documents*;

then the observing party shall notify the other party in writing before conditions are disturbed and in no event later than 5 *Working Days* after first observance of the conditions.

6.4.2 The *Consultant* will promptly investigate such conditions and make a finding. If the finding is that the conditions differ materially and this would cause an increase or decrease in the *Contractor*'s cost or time to perform the *Work*, the *Consultant*, with the *Owner*'s approval, will issue appropriate instructions for a change in the *Work* as provided in GC 6.2 - CHANGE ORDER or GC 6.3 - CHANGE DIRECTIVE.

6.4.3 If the *Consultant* finds that the conditions at the *Place of the Work* are not materially different or that no change in the *Contract Price* or the *Contract Time* is justified, the *Consultant* will report the reasons for this finding to the *Owner* and the *Contractor* in writing.

6.4.4 The *Contractor* shall not be entitled to an adjustment in the *Contract Price* or the *Contract Time* if such conditions were reasonably apparent prior to the time of bid closing.

GC 6.5 DELAYS

6.5.1 If the *Contractor* is delayed in the performance of the *Work* by an action or omission of the *Owner*, *Consultant*, or anyone employed or engaged by them directly or indirectly, contrary to the provisions of the *Contract Documents*, then the *Contract Time* shall be extended for such reasonable time as the *Consultant* may recommend in consultation with the *Contractor*. The *Contractor* shall be reimbursed by the *Owner* for reasonable costs incurred by the *Contractor* as the result of such delay.

6.5.2 If the *Contractor* is delayed in the performance of the *Work* by a stop work order issued by a court or other public authority and providing that such order was not issued as the result of an act or fault of the *Contractor* or any person employed or engaged by the *Contractor* directly or indirectly, then the *Contract Time* shall be extended for such reasonable time as the *Consultant* may recommend in consultation with the *Contractor*. The *Contractor* shall be reimbursed by the *Owner* for reasonable costs incurred by the *Contractor* as the result of such delay.

6.5.3 If the *Contractor* is delayed in the performance of the *Work* by

.1 labour disputes, strikes, lock-outs (including lock-outs decreed or recommended for its members by a recognized contractors' association, of which the *Contractor* is a member or to which the *Contractor* is otherwise bound),

.2 fire, unusual delay by common carriers or unavoidable casualties,

.3 abnormally adverse weather conditions, or

.4 any other cause beyond the *Contractor*'s control, other than one resulting from a default of or breach of *Contract* by the *Contractor*,

then the *Contract Time* shall be extended for such reasonable time as the *Consultant* may recommend in consultation with the *Contractor*. The extension of time shall not be less than the time lost as the result of the event causing the delay, unless the *Contractor* agrees to a shorter extension. The *Contractor* shall not be entitled to payment for costs incurred by such delays unless such delays result from actions by the *Owner*.

6.5.4 No extension shall be made for delay unless notice in writing of the cause of delay is given to the *Consultant* not later than 10 *Working Days* after the commencement of delay, providing however, that in the case of a continuing cause of delay only one notice shall be necessary.

6.5.5 If no schedule is made under paragraph 2.2.9 of GC 2.2 - ROLE OF THE CONSULTANT, then no request for extension shall be made because of failure of the *Consultant* to furnish instructions until 10 *Working Days* after demand for such instructions has been made and not then, unless the request is reasonable.

GC 6.6 CLAIMS

6.6.1 If the *Contractor* intends to make a claim for additional payment, or if the *Owner* intends to make a claim for a credit to the *Contract Price* or for damages of any kind, the party that intends to make the claim shall give notice in writing of intent to claim to the other party and to the *Consultant* as soon as practicable, but no later than 10 *Working Days* after commencement of the event or series of events giving rise to the claim. Failure to provide such notification shall invalidate the claim.

6.6.2 Upon commencement of the event or series of events giving rise to the claim, the party intending to make a claim shall:

.1 take all reasonable measures to mitigate any loss or damage which may be incurred as a result of such event or series of events, and

.2 keep such records as may be necessary to support the claim.

6.6.3 Within 30 *Working Days* after commencement of the event or series of events giving rise to the claim, or such other reasonable time as may be agreed by the *Consultant*, the party making the claim shall submit to the *Consultant* a detailed account of the amount claimed and the grounds upon which the claim is based.

6.6.4 Where the event or series of events giving rise to the claim has a continuing effect, the detailed account submitted under paragraph 6.6.3 shall be considered to be an interim account and the party making the claim shall, at such intervals as the *Consultant* may reasonably require, submit further interim accounts giving the accumulated amount of the claim and any further grounds upon which it is based. The party making the claim shall submit a final account with 30 *Working Days* after the end of the effects resulting from the event or series of events.

6.6.5 The *Consultant's* findings, with respect to a claim made by either party, will be given by notice in writing to the other party within 30 *Working Days* after receipt thereof by the *Consultant*, or such other time period as may be agreed by the parties. If such finding is not acceptable to both parties, the claim shall be settled in accordance with Part 8 of the General Conditions - DISPUTE RESOLUTION.

GC 6.7 QUANTITY VARIATIONS

6.7.1 The *Owner* or the *Contractor* may request an adjustment to a *Unit Price* contained in a *Schedule of Prices* included in the *Contract* provided that the actual quantity of the item in the *Schedule of Prices* exceeds or falls short of the estimated quantity by more that 15%.

6.7.2 Where the actual quantity exceeds the estimated quantity by more than 15%, a *Unit Price* adjusted pursuant to paragraph 6.7.1 shall apply only to the quantity that exceeds 115% of the estimated quantity.

6.7.3 Where the actual quantity falls short of the estimated quantity by more than 15%, a *Unit Price* adjusted pursuant to paragraph 6.7.1 shall not exceed the *Unit Price* that would cause the extended amount to equal the original extended amount derived from the original *Unit Price* and estimated quantity.

6.7.4 If either party requests adjustment of a *Unit Price*, both parties shall make all reasonable efforts to agree on a revised *Unit Price*. The agreed revised *Unit Price* shall be recorded in a Change Order.

6.7.5 If agreement on a revised *Unit Price* is not reached, the matter shall be subject to final determination in accordance with Part 8 - DISPUTE RESOLUTION. Pending determination of the revised *Unit Price*, payment for the *Work* performed shall be included in progress payments based on the unrevised *Unit Price*.

PART 7 DEFAULT NOTICE

GC 7.1 OWNER'S RIGHT TO PERFORM THE WORK, STOP THE WORK, OR TERMINATE THE CONTRACT

7.1.1 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*.

7.1.2 If the *Contractor* neglects to prosecute the *Work* properly or otherwise fails to comply with the requirements of the *Contract* to a substantial degree and if the *Consultant* 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.

7.1.3 If the default cannot be corrected in the 5 *Working Days* specified, the *Contractor* shall be in compliance with the *Owner*'s instructions if the *Contractor*:

.1 commences the correction of the default within the specified time, and

.2 provides the *Owner* with an acceptable schedule for such correction, and

.3 corrects the default in accordance with such schedule.

7.1.4 If the *Contractor* fails to correct the default in the time specified or subsequently agreed upon, without prejudice to any other right or remedy the *Owner* may have, the *Owner* may:

.1 correct such default and deduct the cost thereof from any payment then or thereafter due the *Contractor* provided the *Consultant* has certified such cost to the *Owner* and the *Contractor*, or

.2 terminate the *Contractor*'s right to continue with the *Work* in whole or in part or terminate the *Contract*.

7.1.5 If the *Owner* terminates the *Contractor*'s right to continue with the *Work* as provided in paragraphs 7.1.1 and 7.1.4, the *Owner* shall be entitled to:

.1 take possession of the *Work* and *Products* delivered to the *Place of the Work*, subject to the rights of third parties, and finish the *Work* by whatever method the *Owner* may consider expedient, but without undue delay or expense, and

.2 withhold further payment to the *Contractor* until a final certificate for payment is issued, and

.3 charge the *Contractor* the amount by which the full cost of finishing the *Work* as certified by the *Consultant*, including compensation to the *Consultant* for the *Consultant*'s additional services and a reasonable allowance as determined by the *Consultant* to cover the cost of corrections to work performed by the *Contractor* that may be required under GC 12.3 - WARRANTY, exceeds the unpaid balance of the *Contract Price*; however, if such cost of finishing the *Work* is less than the unpaid balance of the *Contract Price*, the *Owner* shall pay the *Contractor* the difference, and

.4 on expiry of the warranty period, charge the *Contractor* the amount by which the cost of corrections to the *Contractor*'s work under GC 12.3 - WARRANTY exceeds the allowance provided for such corrections, or if the cost of such corrections is less than the allowance, pay the *Contractor* the difference.

7.1.6 The *Contractor*'s obligation under the *Contract* as to quality, correction, and warranty of the work performed by the *Contractor* up to the time of termination shall continue in force after such termination.

GC 7.2 CONTRACTOR'S RIGHT TO STOP THE WORK OR TERMINATE THE CONTRACT

7.2.1 If the *Owner* is adjudged bankrupt, or makes a general assignment for the benefit of creditors because of the *Owner*'s insolvency, or if a receiver is appointed because of the *Owner*'s 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 notice in writing, terminate the *Contract*.

7.2.2 If the *Work* is stopped or otherwise delayed for a period of 20 *Working Days* or more under an order of a court or other public authority and providing that such order was not issued as the result of an act or fault of the *Contractor* or of anyone directly or indirectly 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* notice in writing, terminate the *Contract*.

7.2.3 The *Contractor* may notify the *Owner* in writing, with a copy to the *Consultant*, that the *Owner* is in default of the *Owner*'s contractual obligations if:

.1 the *Owner* fails to furnish, when so requested by the *Contractor*, reasonable evidence that financial arrangements have been made to fulfill the *Owner*'s obligations under the *Contract*, or

.2 the *Consultant* fails to issue a certificate as provided in GC 5.3 PROGRESS PAYMENT, or

.3 the *Owner* fails to pay the *Contractor* when due the amounts certified by the *Consultant* or awarded by arbitration or court, or

.4 the *Owner* violates the requirements of the *Contract* to a substantial degree and the *Consultant*, except for GC 5.1 - FINANCING INFORMATION REQUIRED OF THE OWNER, confirms by written statement to the *Contractor* that sufficient cause exists.

7.2.4 The *Contractor*'s notice in writing to the *Owner* provided under paragraph 7.2.3 shall advise that if the default is not corrected within 5 *Working Days* following the receipt of the notice in writing, the *Contractor* may, without prejudice to any other right or remedy the *Contractor* may have, stop the *Work* or terminate the *Contract*.

7.2.5 If the *Contractor* terminates the *Contract* under the conditions set out above, the *Contractor* shall be entitled to be paid for all work performed including reasonable profit, for loss sustained upon *Products* and *Construction Equipment*, and such other damages as the *Contractor* may have sustained as a result of the termination of the *Contract*.

PART 8 DISPUTE RESOLUTION

GC 8.1 AUTHORITY OF THE CONSULTANT

8.1.1 Differences between the parties to the *Contract* as to the interpretation, application or administration of the *Contract* or any failure to agree where agreement between the parties is called for, herein collectively called disputes, which are not resolved in the first instance by findings of the *Consultant* as provided in GC 2.2 - ROLE OF THE CONSULTANT, shall be settled in accordance with the requirements of Part 8 of the General Conditions - DISPUTE RESOLUTION.

8.1.2 If a dispute arises under the *Contract* in respect of a matter in which the *Consultant* has no authority under the *Contract* to make a finding, the procedures set out in paragraph 8.1.3 and paragraphs 8.2.3 to 8.2.8 of GC 8.2 - NEGOTIATION, MEDIATION, AND ARBITRATION, and in GC 8.3 - RETENTION OF RIGHTS apply to that dispute with the necessary changes to detail as may be required.

8.1.3 If a dispute is not resolved promptly, the *Consultant* will give such instructions as in the *Consultant*'s opinion are necessary for the proper performance of the *Work* and to prevent delays pending settlement of the dispute. The parties shall act immediately according to such instructions, it being understood that by so doing neither party will jeopardize any claim the party may have. If it is subsequently determined that such instructions were in error or at variance with the *Contract Documents*, the *Owner* shall pay the *Contractor* costs incurred by the *Contractor* in carrying out such instructions which the *Contractor* was required to do beyond what the *Contract Documents* correctly understood and interpreted would have required, including costs resulting from interruption of the *Work*.

GC 8.2 NEGOTIATION, MEDIATION, AND ARBITRATION

8.2.1 In accordance with the latest edition of the Rules for Mediation of Construction Disputes as provided in CCDC 40, the parties shall appoint a Project Mediator

.1 within 20 *Working Days* after the *Contract* was awarded, or

.2 if the parties neglected to make an appointment within the 20 *Working Day* period, within 10 *Working Days* after either party by notice in writing requests that the Project Mediator be appointed.

8.2.2 A party shall be conclusively deemed to have accepted a finding of the *Consultant* under GC 2.2 - ROLE OF THE CONSULTANT and to have expressly waived and released the other party from any claims in respect of the particular matter dealt with in that finding unless, within 15 *Working Days* after receipt of that finding, the party sends a notice in writing of dispute to the other party and to the *Consultant*, which contains the particulars of the matter in dispute and the relevant provisions of the *Contract Documents*. The responding party shall send a notice in writing of reply to the dispute within 10 *Working Days* after receipt of the notice of dispute setting out particulars of this response and any relevant provisions of the *Contract Documents*.

8.2.3 The parties shall make all reasonable efforts to resolve their dispute by amicable negotiations and agree to provide, without prejudice, frank, candid and timely disclosure of relevant facts, information, and documents to facilitate these negotiations.

8.2.4 After a period of 10 *Working Days* following receipt of a responding party's notice in writing of reply under paragraph 8.2.2, the parties shall request the Project Mediator to assist the parties to reach agreement on any unresolved dispute. The mediated negotiations shall be conducted in accordance with the latest edition of the Rules for Mediation of Construction Disputes as provided in CCDC 40.

8.2.5 If the dispute has not been resolved within 10 *Working Days* after the Project Mediator was requested under paragraph 8.2.4 or within such further period agreed by the parties, the Project Mediator shall terminate the mediated negotiations by giving notice in writing to both parties.

8.2.6 By giving a notice in writing to the other party, not later than 10 *Working Days* after the date of termination of the mediated negotiations under paragraph 8.2.5, either party may refer the dispute to be finally resolved by arbitration under the latest edition of the Rules for Arbitration of Construction Disputes as provided in CCDC 40. The arbitration shall be conducted in the jurisdiction of the *Place of the Work.*

8.2.7 On expiration of the 10 *Working Days*, the arbitration agreement under paragraph 8.2.6 is not binding on the parties and, if a notice is not given under paragraph 8.2.6 within the required time, the parties may refer the unresolved dispute to the courts or to any other form of dispute resolution, including arbitration, which they have agreed to use.

8.2.8 If neither party requires by notice in writing given within 10 *Working Days* of the date of notice requesting arbitration in paragraph 8.2.6 that a dispute be arbitrated immediately, all disputes referred to arbitration as provided in paragraph 8.2.6 shall be

.1 held in abeyance until

(1) *Substantial Performance of the Work*,

(2) the *Contract* has been terminated, or

(3) the *Contractor* has abandoned the *Work*,

whichever is earlier, and

.2 consolidated into a single arbitration under the rules governing the arbitration under paragraph 8.2.6.

GC 8.3 RETENTION OF RIGHTS

8.3.1 It is agreed that no act by either party shall be construed as a renunciation or waiver of any rights or recourses, provided the party has given the notices required under Part 8 of the General Conditions - DISPUTE RESOLUTION and has carried out the instructions as provided in paragraph 8.1.3.

8.3.2 Nothing in Part 8 of the General Conditions - DISPUTE RESOLUTION shall be construed in any way to limit a party from asserting any statutory right to a lien under applicable lien legislation of the jurisdiction of the *Place of the Work* and the assertion of such right by initiating judicial proceedings is not to be construed as a waiver of any right that party may have under paragraph 8.2.6 to proceed by way of arbitration to adjudicate the merits of the claim upon which such a lien is based.

PART 9 PROTECTION OF PERSONS AND PROPERTY

GC 9.1 PROTECTION OF WORK AND PROPERTY

9.1.1 The *Contractor* shall protect the *Work* and the *Owner*'s property and property adjacent to the *Place of the Work* from damage which may arise as the result of the *Contractor*'s operations under the *Contract*, and shall be responsible for such damage, except damage which occurs as the result of:

.1 errors in the *Contract Documents*;

.2 acts or omissions by the *Owner*, the *Consultant*, other contractors, their agents and employees.

9.1.2 Before commencing any work, the *Contractor* shall determine the location of all known underground utilities and structures indicated in the *Contract Documents* or that are reasonably apparent in an inspection of the *Place of the Work*.

9.1.3 Should the *Contractor* in the performance of the *Contract* damage the *Work*, the *Owner*'s property, or property adjacent to the *Place of the Work*, the *Contractor* shall be responsible for the making good such damage at the *Contractor*'s expense.

9.1.4 Should damage occur to the *Work* or *Owner*'s property for which the *Contractor* is not responsible, as provided in paragraph 9.1.1, the *Contractor* shall make good such damage to the *Work* and, if the *Owner* so directs, to the *Owner*'s property. The *Contract Price* and *Contract Time* shall be adjusted as provided in GC 6.1 - CHANGES, GC 6.2 - CHANGE ORDER, and GC 6.3 - CHANGE DIRECTIVE.

GC 9.2 DAMAGES AND MUTUAL RESPONSIBILITY

9.2.1 If either party to the *Contract* should suffer damage in any manner because of any wrongful act or neglect of the other party or of anyone for whom the other party is responsible in law, then that party shall be reimbursed by the other party for such damage. The reimbursing party shall be subrogated to the rights of the other party in respect of such wrongful act or neglect if it be that of a third party.

9.2.2 If the *Contractor* has caused damage to the work of another contractor on the *Project*, the *Contractor* shall upon due notice in writing settle with the other contractor by negotiation or arbitration. If the other contractor makes a claim against the *Owner* on account of damage alleged to have been so sustained, the *Owner* shall notify the *Contractor* in writing and may require the *Contractor* to defend the action at the *Contractor*'s expense. The *Contractor* shall satisfy a final order or judgment against the *Owner* and pay the costs incurred by the *Owner* arising from such action.

9.2.3 If the *Contractor* becomes liable to pay or satisfy a final order, judgment, or award against the *Owner*, then the *Contractor*, upon undertaking to indemnify the *Owner* against any and all liability for costs, shall have the right to appeal in the name of the *Owner* such final order or judgment to any and all courts of competent jurisdiction.

GC 9.3 TOXIC AND HAZARDOUS SUBSTANCES

9.3.1 For the purposes of applicable environmental legislation, the *Owner* shall be deemed to have control and management of the *Place of the Work* with respect to existing conditions.

9.3.2 Prior to the *Contractor* commencing the *Work*, the *Owner* shall:

.1 take all reasonable steps to determine whether any toxic or hazardous substances are present at the *Place of the Work*, and

.2 provide the *Consultant* and the *Contractor* with a written list of any such substances that are known to exist and their locations.

9.3.3 The *Owner* shall take all reasonable steps to ensure that no person suffers injury, sickness, or death and that no property is damaged or destroyed as a result of exposure to, or the presence of, toxic or hazardous substances which were at the *Place of the Work* prior to the *Contractor* commencing the *Work*.

9.3.4 Unless the *Contract* expressly provides otherwise, the *Owner* shall be responsible for taking all necessary steps, in accordance with legal requirements, to dispose of, store or otherwise render harmless toxic or hazardous substances which were present at the *Place of the Work* prior to the *Contractor* commencing the *Work*.

9.3.5 If the *Contractor*

.1 encounters toxic or hazardous substances at the *Place of the Work*, or

.2 has reasonable grounds to believe that toxic or hazardous substances are present at the *Place of the Work*,

which were not disclosed by the *Owner*, as required under paragraph 9.3.2, or which were disclosed but have not been dealt with as required under paragraph 9.3.4, the *Contractor* shall

.3 take all reasonable steps, including stopping the *Work*, to ensure that no person suffers injury, sickness, or death and that no property is damaged or destroyed as a result of exposure to or the presence of the substances, and

.4 immediately report the circumstances to the *Consultant* and the *Owner* in writing.

9.3.6 If the *Contractor* is delayed in performing the *Work* or incurs additional costs as a result of taking steps required under paragraph 9.3.5.3, the *Contract Time* shall be extended for such reasonable time as the *Consultant* may recommend in consultation with the *Contractor* and the *Contractor* shall be reimbursed for reasonable costs incurred as a result of the delay and as a result of taking those steps.

9.3.7 Notwithstanding paragraphs 2.2.6 and 2.2.7 of GC 2.2 - ROLE OF THE CONSULTANT, or paragraph 8.1.1 of GC 8.1 - AUTHORITY OF THE CONSULTANT, the *Consultant* may select and rely upon the advice of an independent expert in a dispute under paragraph 9.3.6 and, in that case, the expert shall be deemed to have been jointly retained by the *Owner* and the *Contractor* and shall be jointly paid by them.

9.3.8 The *Owner* shall indemnify and hold harmless the *Contractor*, the *Consultant*, their agents and employees, from and against claims, demands, losses, costs, damages, actions, suits, or proceedings arising out of or resulting from exposure to, or the presence of, toxic or hazardous substances which were at the *Place of the Work* prior to the *Contractor* commencing the *Work*. This obligation shall not be construed to negate, abridge, or reduce other rights or obligations of indemnity set out in GC 12.1 - INDEMNIFICATION or which otherwise exist respecting a person or party described in this paragraph.

9.3.9 GC 9.3 - TOXIC AND HAZARDOUS SUBSTANCES shall govern over the provisions of paragraph 1.3.1 of GC 1.3 RIGHTS AND REMEDIES or GC 9.2 - DAMAGES AND MUTUAL RESPONSIBILITY.

GC 9.4 ARTIFACTS AND FOSSILS

9.4.1 Fossils, coins, articles of value or antiquity, structures, and other remains or things of scientific or historic interest discovered at the *Place or Work* shall, as between the *Owner* and the *Contractor*, be deemed to be the absolute property of the *Owner*.

9.4.2 The *Contractor* shall take all reasonable precautions to prevent removal or damage to discoveries as identified in paragraph 9.4.1, and shall notify the *Consultant* immediately upon discovery of such items.

9.4.3 The *Consultant* will investigate the impact on the *Work* of the discoveries identified in paragraph 9.4.1. If conditions are found that would cause an increase or decrease in the *Contractor*'s cost or time to perform the *Work*, the *Consultant*, with the *Owner's* approval, shall issue appropriate instructions for a change in the *Work* as provided in GC 6.2 - CHANGE ORDER or GC 6.3 - CHANGE DIRECTIVE.

GC 9.5 CONSTRUCTION SAFETY

9.5.1 Subject to paragraph 3.2.2.2 of GC 3.2 - CONSTRUCTION BY OWNER OR OTHER CONTRACTORS, the *Contractor* shall be solely responsible for construction safety at the *Place or the Work* and for compliance with the rules, regulations, and practices required by the applicable construction health and safety legislation and shall be responsible for initiating, maintaining, and supervising all safety precautions and programs in connection with the performance of the *Work*.

PART 10 GOVERNING REGULATIONS

GC 10.1 TAXES AND DUTIES

10.1.1 The *Contract Price* shall include all taxes and customs duties in effect at the time of the bid closing except for *Value Added Taxes* payable by the *Owner* to the *Contractor* as stipulated in Article A-4 of the Agreement - CONTRACT PRICE.

10.1.2 Any increase or decrease in costs to the *Contractor* due to changes in such included taxes and duties after the time of bid closing shall increase or decrease the *Contract Price* accordingly.

GC 10.2 LAWS, NOTICES, PERMITS, AND FEES

10.2.1 The laws of the *Place of the Work* shall govern the *Work*.

10.2.2 Except for the permits and fees, including those required under paragraph 10.2.3, which the *Contract Documents* specify as the responsibility of the *Contractor*, the *Owner* shall obtain and pay for all necessary approvals, permits, permanent easements, and rights of servitude.

10.2.3 The *Contractor* shall obtain and pay for permits, licenses, inspections and certificates necessary for performance of the *Work* and customarily obtained after signing of the *Contract*.

10.2.4 The *Contractor* shall give the required notices and comply with the laws, ordinances, rules, regulations, or codes which are or become in force during the performance of the *Work* and which relate to the *Work*, to the preservation of the public health, and to construction safety.

10.2.5 The *Contractor* shall not be responsible for verifying that the *Contract Documents* are in compliance with the applicable laws, ordinances, rules, regulations, or codes relating to the *Work*. If the *Contract Documents* are at variance therewith, or if, subsequent to the time of bid closing, changes are made to the applicable laws, ordinances, rules, regulations, or codes which require modification to the *Contract Documents*, the *Contractor* shall notify the *Consultant* in writing requesting direction immediately upon such variance or change becoming known. The *Consultant* will make the changes required to the *Contract Documents* as provided in GC 6.1 - CHANGES, GC 6.2 - CHANGE ORDER, and GC 6.3 - CHANGE DIRECTIVE.

10.2.6 If the *Contractor* fails to notify the *Consultant* in writing; and fails to obtain direction as required in paragraph 10.2.5; and performs work knowing it to be contrary to any laws, ordinances, rules, regulations, or codes; the *Contractor* shall be responsible for and shall correct the violations thereof; and shall bear the costs, expenses, and damages attributable to the failure to comply with the provisions of such laws, ordinances, rules, regulations, or codes.

10.2.7 If, subsequent to the time of bid closing, changes are made to applicable laws, ordinances, rules, regulations, or codes of authorities having jurisdiction which affect the cost of the *Work*, either party may submit a claim in accordance with the requirements of GC 6.6 - CLAIMS.

GC 10.3 PATENT FEES

10.3.1 The *Contractor* shall pay the royalties and patent licence fees required for the performance of the *Contract*. The *Contractor* shall hold the *Owner* harmless from and against claims, demands, losses, costs, damages, actions, suits, or proceedings arising out of the *Contractor*'s performance of the *Contract* which are attributable to an infringement or an alleged infringement of a patent of invention by the *Contractor* or anyone for whose acts the *Contractor* may be liable.

10.3.2 The *Owner* shall hold the *Contractor* harmless against claims, demands, losses, costs, damages, actions, suits, or proceedings arising out of the *Contractor*'s performance of the *Contract* which are attributable to an infringement or an alleged infringement of a patent of invention in executing anything for the purpose of the *Contract*, the model, plan, or design of which was supplied to the *Contractor* as part of the *Contract Documents*.

GC 10.4 WORKERS' COMPENSATION

10.4.1 Prior to commencing the *Work*, *Substantial Performance of the Work*, and the issuance of the final certificate for payment, the *Contractor* shall provide evidence of compliance with workers' compensation legislation at the *Place of the Work*, including payments due thereunder.

10.4.2 At any time during the term of the *Contract*, when requested by the *Owner*, the *Contractor* shall provide such evidence of compliance by the *Contractor* and *Subcontractors*.

PART 11 INSURANCE AND CONTRACT SECURITY

GC 11.1 INSURANCE

11.1.1 Without restricting the generality of GC 12.1 - INDEMNIFICATION, the *Contractor* shall provide, maintain, and pay for the insurance coverages specified in GC 11.1 - INSURANCE. Unless otherwise stipulated, the duration of each insurance policy shall be from the date of commencement of the *Work* until the date of the final certificate for payment. Prior to commencement of the *Work* and upon the placement, renewal, amendment, or extension of all or any part of the insurance, the *Contractor* shall promptly provide the *Owner* with confirmation of coverage and, if required, a certified true copy of the policies certified by an authorized representative of the insurer together with copies of any amending endorsements.

.1 General Liability Insurance:
General liability insurance shall be in the joint names of the *Contractor*, the *Owner*, and the *Consultant*, with limits of not less than $2,000,000 per occurrence and with a property damage deductible not exceeding $2,500. The insurance coverage shall not be less than the insurance required by IBC Form 2100, or its equivalent replacement, provided that IBC Form 2100 shall contain the latest edition of the relevant CCDC endorsement form. To achieve the desired limit, umbrella, or excess liability insurance may be used. All liability coverage shall be maintained for completed operations hazards from the date of *Substantial Performance of the Work*, as set out in the certificate of *Substantial Performance of the Work*, on an ongoing basis for a period of 6 years following *Substantial Performance of the Work*. Where the *Contractor* maintains a single, blanket policy, the addition of the *Owner* and the *Consultant* is limited to liability arising out of the *Work* and all operations necessary or incidental thereto. The policy shall be endorsed to provide the *Owner* with not less than 30 days notice in writing in advance of any cancellation, and of change or amendment restricting coverage.

.2 Automobile Liability Insurance:
Automobile liability insurance in respect of licensed vehicles shall have limits of not less than $2,000,000 inclusive per occurrence for bodily injury, death, and damage to property, covering all licensed vehicles owned or leased by the *Contractor*, and endorsed to provide the *Owner* with not less than 15 days notice in writing in advance of any cancellation, change or amendment restricting coverage. Where the policy has been issued pursuant to a government-operated automobile insurance system, the *Contractor* shall provide the *Owner* with confirmation of automobile insurance coverage for all automobiles registered in the name of the *Contractor*.

.3 Aircraft and Watercraft Liability Insurance:
Aircraft and watercraft liability insurance with respect to owned or non-owned aircraft and watercraft if used directly or indirectly in the performance of the *Work*, including use of additional premises, shall be subject to limits of not less than $2,000,000 inclusive per occurrence for bodily injury, death, and damage to property including loss of use thereof and limits of not less than $2,000,000 for aircraft passenger hazard. Such insurance shall be in a form acceptable to the *Owner*. The policies shall be endorsed to provide the *Owner* with not less than 15 days notice in writing in advance of cancellation, change, or amendment restricting coverage.

.4 Property and Boiler and Machinery Insurance:

(1) "All risks" property insurance shall be in the joint names of the *Contractor*, the *Owner*, the *Consultant*, and all *Subcontractors*, insuring not less than the sum of the amount of the *Contract Price* and the full value, as stated in the Supplementary Conditions, of *Products* that are specified to be provided by the *Owner* for incorporation into the *Work*, with a deductible not exceeding $2,500. The insurance coverage shall not be less than the insurance required by IBC Form 4042 or its equivalent replacement, provided that IBC Form 4042 shall contain the latest edition of the relevant CCDC endorsement form. The coverage shall be maintained continuously until 5 *Working Days* after the date of the final certificate for payment.

(2) Boiler and machinery insurance shall be in the joint names of the *Contractor*, the *Owner*, and the *Consultant* for not less than the replacement value of the boilers, pressure vessels, and other insurable objects forming part of the *Work*. The insurance provided shall not be less than the insurance provided by the "Comprehensive Boiler and Machinery Form" and shall be maintained continuously from commencement of use or operation of the property insured and until 5 *Working Days* after the date of the final certificate for payment.

(3) The policies shall allow for partial or total use or occupancy of the *Work*. If because of such use or occupancy the *Contractor* is unable to provide coverage, the *Contractor* shall notify the *Owner* in writing. Prior to such use or occupancy the *Owner* shall provide, maintain, and pay for all risk property and boiler insurance insuring the full value of the *Work*, as in sub-paragraphs (1) and (2), 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.

(4) The policies shall provide that, in the case 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 the *Owner* 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 *Consultant* may recommend in consultation with the *Contractor*.

(5) 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 as provided in GC 5.5 - APPLICATIONS FOR PROGRESS PAYMENT and GC 5.6 - PROGRESS PAYMENT. In addition the *Contractor* shall be entitled to receive from the payments made by the insurer the amount of the *Contractor*'s interest in the restoration of the *Work*.

(6) In the case of loss or damage to the *Work* arising from the work of another contractor, or *Owner*'s own forces, the *Owner*, in accordance with the *Owner*'s obligations under paragraph 3.2.2.4 of GC 3.2 - CONSTRUCTION BY OWNER OR OTHER CONTRACTORS, shall pay the *Contractor* the cost of restoring the *Work* as the restoration of the *Work* proceeds and as provided in GC 5.5 - APPLICATIONS FOR PROGRESS PAYMENT and GC 5.6 - PROGRESS PAYMENT.

.5 Contractors' Equipment Insurance:

"All risks" contractors' 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 15 days notice in writing in advance of cancellation, change, or amendment restricting coverage. Subject to satisfactory proof of financial capability by the *Contractor* for self-insurance, the *Owner* agrees to waive the equipment insurance requirement.

11.1.2 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 GC 9.1 - PROTECTION OF WORK AND PROPERTY and GC 9.2 - DAMAGES AND MUTUAL RESPONSIBILITY.

11.1.3 Where the full insurable value of the *Work* is substantially less than the *Contract Price*, the *Owner* may reduce the amount of insurance required or waive the course of construction insurance requirement.

11.1.4 If the *Contractor* fails to provide or maintain insurance as required by the *Contract Documents*, then the *Owner* shall have the right to provide and maintain such insurance and give evidence to the *Contractor* and the *Consultant*. The *Contractor* shall pay the cost thereof to the *Owner* on demand or the *Owner* may deduct the amount which is due or may become due to the *Contractor*.

11.1.5 All required insurance policies shall be with insurers licensed to underwrite insurance in the jurisdiction of the *Place of the Work*.

GC 11.2 CONTRACT SECURITY

11.2.1 The *Contractor* shall, prior to commencement of the *Work* or within the specified time, provide to the *Owner* any contract security specified in the *Contract Documents*.

11.2.2 If the *Contract Documents* require surety bonds to be provided, such bonds shall be issued by a duly licensed surety company authorized to transact the business of suretyship in the province or territory of the *Place of the Work* and shall be maintained in good standing until the fulfillment of the *Contract*. The form of such bonds shall be in accordance with the latest edition of the CCDC approved bond forms.

PART 12 INDEMNIFICATION — WAIVER — WARRANTY

GC 12.1 INDEMNIFICATION

12.1.1 The *Contractor* shall indemnify and hold harmless the *Owner* and the *Consultant*, their agents and employees from and against claims, demands, losses, costs, damages, actions, suits, or proceedings (hereinafter called "claims"), by third parties that arise out of, or are attributable to, the *Contractor*'s performance of the *Contract* provided such claims are:

.1 attributable to bodily injury, sickness, disease, or death, or to injury to or destruction of tangible property, and

.2 caused by negligent acts or omissions of the *Contractor* or anyone for whose acts the *Contractor* may be liable, and

.3 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 within such shorter period as may be prescribed by any limitation statute of the province or territory of the *Place of the Work*.

The *Owner* expressly waives the right to indemnity for claims other than those stated above.

12.1.2 The obligation of the *Contractor* to indemnify hereunder shall be limited to $2,000,000 per occurrence from the commencement of the *Work* until *Substantial Performance of the Work* and thereafter to an aggregate limit of $2,000,000.

12.1.3 The *Owner* shall indemnify and hold harmless the *Contractor*, the *Contractor*'s agents and employees from and against claims, demands, losses, costs, damages, actions, suits, or proceedings arising out of the *Contractor*'s performance of the *Contract* which are attributable to a lack of or defect in title or an alleged lack of or defect in title to the *Place of the Work*.

12.1.4 GC 12.1 - INDEMNIFICATION shall govern over the provisions of paragraph 1.3.1 of GC 1.3 - RIGHTS AND REMEDIES or GC 9.2 - DAMAGES AND MUTUAL RESPONSIBILITY.

GC 12.2 WAIVER OF CLAIMS

12.2.1 Waiver of Claims by *Owner*

As of the date of the final certificate for payment, the *Owner* expressly waives and releases the *Contractor* from all claims against the *Contractor* including without limitation those that might arise from the negligence or breach of contract by the *Contractor* except one or more of the following:

.1 those made in writing prior to the date of the final certificate for payment and still unsettled;

.2 those arising from the provisions of GC 12.1 - INDEMNIFICATION or GC 12.3 - WARRANTY;

.3 those arising from the provisions of paragraph 9.3.5 of GC 9.3 - TOXIC AND HAZARDOUS SUBSTANCES AND MATERIALS and arising from the *Contractor* bringing or introducing any toxic or hazardous substances and materials to the *Place of the Work* after the *Contractor* commences the *Work*.

In the Common Law provinces GC 12.2.1.4 shall read as follows:

.4 those 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 within such shorter period as may be prescribed by any limitation statute of the province or territory of the *Place of the Work* and arising from any liability of the *Contractor* for damages resulting from the *Contractor*'s performance of the *Contract* with respect to substantial defects or deficiencies in the *Work* for which the *Contractor* is proven responsible. As used herein "substantial defects or deficiencies" means those defects or deficiencies in the *Work* which affect the *Work* to such an extent or in such a manner that a significant part or the whole of the *Work* is unfit for the purpose intended by the *Contract Documents*.

In the Province of Quebec GC 12.2.1.4 shall read as follows:

.4 those arising under the provisions of Article 2118 of the Civil Code of Quebec.

12.2.2 Waiver of Claims by *Contractor*

As of the date of the final certificate for payment, the *Contractor* expressly waives and releases the *Owner* from all claims against the *Owner* including without limitation those that might arise from the negligence or breach of contract by the *Owner* except:

.1 those made in writing prior to the *Contractor*'s application for final payment and still unsettled; and

.2 those arising from the provisions of GC 9.3 - TOXIC AND HAZARDOUS SUBSTANCES or GC 10.3 - PATENT FEES.

12.2.3 GC 12.2 - WAIVER OF CLAIMS shall govern over the provisions of paragraph 1.3.1 of GC 1.3 - RIGHTS AND REMEDIES, GC 6.6 - CLAIMS, and GC 9.2 - DAMAGES AND MUTUAL RESPONSIBILITY.

GC 12.3 WARRANTY

12.3.1 Except for extended warranties as described in paragraph 12.3.6, the warranty period under the *Contract* is one year from the date of *Substantial Performance of the Work.*

12.3.2 The *Contractor* shall be responsible for the proper performance of the *Work* to the extent that the design and *Contract Documents* permit such performance.

12.3.3 Subject to paragraph 12.3.2, the *Contractor* shall correct promptly, at the *Contractor*'s expense, defects or deficiencies in the *Work* which appear prior to and during the warranty periods specified in the *Contract Documents*.

12.3.4 The *Owner*, through the *Consultant*, shall promptly give the *Contractor* notice in writing of observed defects and deficiencies which occur during the one-year warranty period.

12.3.5 The *Contractor* shall correct or pay for damage resulting from corrections made under the requirements of paragraph 12.3.3.

12.3.6 Any extended warranties required beyond the one-year warranty period, as described in paragraph 12.3.1, shall be as specified in the *Contract Documents*. Extended warranties shall be issued by the warrantor to the benefit of the *Owner*. The *Contractor's* responsibility with respect to extended warranties shall be limited to obtaining any such extended warranties from the warrantor. The obligations under such extended warranties are solely the responsibility of the warrantor.

THESE SUPPLEMENTARY GENERAL CONDITIONS AMEND THE DEFINITIONS AND GENERAL CONDITIONS

DEFINITIONS

1. Page 2, after definition for Project, add new definition for Project Documents as follows:

   Project Documents
   Project Documents are those documents prepared to supplement the Standard Specifications for the Work on a specific Project. Where applicable, they consist of the Information for Tenderers, Tender Form, Form of Agreement, Supplementary Specifications, drawings and addenda.

2. Page 3, after definition for Specifications, add new definition for Standard Specification as follows:

   Standard Specification
   The Standard Specifications consist of Definitions, General Conditions, Supplementary General Conditions, Measurement and Payment, General Requirements, other Technical Specifications and standard details developed by the Nova Scotia Road Builders Association and the Consulting Engineers of Nova Scotia Joint Committee on Contract Documents and published with the title of Standard Specifications for Municipal Services.

3. Page 3, after definition for Supplemental Instruction, add new definition for Supplemental Specifications as follows:

   Supplementary Specifications
   Supplementary Specifications are the specifications for a specific project which amend or add to the Standard Specifications.

4. Where the term “Consultant” is used throughout the General Conditions, revise to read “Engineer”.

5. Page 6, delete Definition 7 and replace with the following new definition:

   “7. The Contract Price shall be the sum of the products of the actual final quantities that are incorporated in, or made necessary by the Work, as confirmed by count and measurement, multiplied by the appropriate Unit Prices from the Tender Form together with any adjustments that are made in accordance with the provisions of the Contract Documents plus the amount of Harmonized Sales Tax.”

SECTION 00 72 45 - GENERAL CONDITIONS OF CONTRACT

1. GC 2.4 – DEFECTIVE WORK

Page 11, clause 2.4.3, add the following sentence at the end of the clause:

"If the Engineer determination is not accepted by either party, then the matter shall be settled in accordance with the requirements of Part 8 of the General Conditions – DISPUTE RESOLUTION."

2. GC 3.7 – LAYOUT OF THE WORK

Page 13, delete clause 3.7.1 in its entirety and replace with the following:

"3.7.1 The Contractor shall have all reference points established on site by a licensed surveyor, at the place of the Work, at no additional cost to the Owner."

3. GC 3.11 – SHOP DRAWINGS

Page 14, clause 3.11.4, delete second sentence and replace to read:

"Contractor shall prepare and jointly review with Engineer, a schedule of dates for submission of shop drawings."

4. GC 5.4 – BASIS OF PAYMENT FOR COST PLUS WORK

Page 16, after clause 5.4.2, add the following:

"5.4.3 The percentage fee as stated in clause 5.4.1 shall be ten percent (10%) of the cost plus work, but shall not be applied to the cost of construction equipment when such cost is based on rates which already include overhead and profit."

5. GC 5.6 – PROGRESS PAYMENT

Page 18, in clause 5.6.1, line 1, change "5 working days" to read "10 calendar days" and in line 2, change "GC5.2" to read "GC 5.5".

Page 18, delete clause 5.6.2 in its entirety and replace with the following:

"5.6.2 The Owner shall make payment to the Contractor on account as provided in Article A-5 of the Agreement – PAYMENT on or before twenty (20) calendar days after the later of:
.1 receipt by the Engineer of the application for payment; or
.2 the last day of the monthly payment period covered by the application for payment."

Page 18, after clause 5.6.3, add the following additional clause:

"5.6.4 The Contractor shall agree interim quantities with the Engineer for the purposes of progress payment claims, prior to submission of progress payment application.

"5.6.5 The Contractor shall pay promptly any and all accounts for labour, services and materials used for the purpose of the fulfillment of this Contract as and when such accounts become due and payable and shall furnish the Engineer with proof of payment of such accounts in such form and as often as the Engineer may request."

6. GC 5.7 – SUBSTANTIAL PERFORMANCE OF THE WORK

Page 18, after clause 5.7.4, add the following additional clause:

"5.7.5 Fifteen (15) days before the Contractor submits the application for Substantial Performance of the Work, all Operations and Maintenance Manual materials shall be submitted to the Engineer in accordance with the Contract Documents. The Certificate of Substantial Performance will not be issued until the Engineer received the required documents."

7. GC 5.8 PAYMENT OF HOLDBACK UPON SUBSTANTIAL PERFORMANCE OF THE WORK

Page 18, clause 5.8.1.2, first line change "sworn or affirmed statement" to read "Statutory Declaration on CCDC Form 9A, latest edition"

Page 18, after clause 5.8.1.2, add the following:

"5.8.1.3 Submit a clearance letter from the Workers' Compensation Board.

5.8.1.4 All such documents shall be dated not earlier than the expiry of the lien period."

Page 18, clause 5.8.2, first line, change "sworn or affirmed statement" to read "Statutory Declaration on CCDC Form 9A, latest edition"

8. GC 5.10 – FINAL PAYMENT

Page 19, delete clause 5.10.1 in its entirety and replace with the following:

"5.10.1 When the Contractor considers that the Work is completed, the Contractor shall submit an application for final payment. The Contractor's application for final payment is considered to be valid when:

.1 Work has been completed in compliance with the Contract Documents and the Engineer is satisfied that all the requirements of the Contract have been fulfilled by the

Contractor.

.2 Defects have been corrected and deficiencies have been completed.

.3 Equipment and systems have been tested, adjusted and balanced and are fully operational and written reports as outlined in the Contract Documents have been provided to the Engineer.

.4 Certificates required by utility companies, manufacturer's representative and inspectors have been submitted.

.5 Spare parts, maintenance materials, warranties and bonds have been provided.

5.10.2 If Work is deemed incomplete by the Engineer, complete outstanding items and request re-inspection.

5.10.3 If, in the opinion of the Engineer, it is not expedient to correct defective work or work is not performed in accordance with the requirements of the Contract, the Owner may deduct from the Contract Price the difference in value between work performed and that called for by the Contract Documents, the amount of which shall be determined by the Engineer."

Page 19, renumber existing clauses 5.10.2, 5.10.3 and 5.10.4 to 5.10.4, 5.10.5, and 5.10.6 respectively. In renumbered clause 5.10.6, change "5 working days" to read "20 calendar days".

9. GC 6.2 – CHANGE ORDER

Page 20, add new clause 6.2.4 as follows:

"6.2.4 If the method of adjustment of the Contract Price presented by the Contractor is a lump sum or a unit price quotation as indicated in 6.2.2.2, the mark-up on changes shall be as follow:

.1 Work performed by Contractor's own forces: cost plus ten percent (10%) overhead plus ten percent (10%) fee.

.2 Work performed by Subcontractor's forces: cost plus ten percent (10%) overhead plus five percent (5%) fee.

10. GC 6.3 – CHANGE DIRECTIVE

Page 21, in clause 6.3.8, add the following sentence at the end of the paragraph:

"If such determination by the Engineer is not accepted by either party, then the decision shall be made in accordance with Part 8 of the General Conditions – DISPUTE RESOLUTION."

11. GC 6.5 – DELAYS

Page 21, clause 6.5.2, delete last sentence of paragraph and replace with the following sentence:

"The Contractor will not be reimbursed by the Owner for costs incurred by the Contractor as a result of such delay."

12. GC 9.5 – CONSTRUCTION SAFETY

Page 22, after GC 9.5.1, add the following:

"9.5.2 W.H.M.I.S. – Workplace Hazardous Materials Information Systems & Hazardous Products Act – Government of Canada Regulations under the Hazardous Products Act and the regulation regarding the handling and storage of hazardous materials must be complied with (reference: Regulation 88-221). These regulations stipulate that employees must be trained in the proper handling of workplace hazardous material."

13. GC 10.1 – TAXES AND DUTIES

Page 28, after clause 10.1.2, add the following:

"10.1.3 The Contractor shall indicate on each application for payment, as a separate amount, the appropriate Harmonized Sales Tax that the Owner is legally obliged to pay. This amount will be paid to the Contractor in addition to the amount certified for payment under the Contract."

14. GC 10.2 – LAWS, NOTICES, PERMITS AND FEES

Page 28, delete paragraph 10.2.2 and replace with the following:

"10.2.2 The Contractor shall obtain the permits, including (if required) the permit for Breaking of Soil of Highways from the Nova Scotia Department of Transportation and Infrastructure Renewal (NSTIR); licenses; letters of approval and certificates and pay the fees required for the performance of the Work which are in force at the date of tender closing, but this shall not include the obtaining of permanent easements or rights-of-way."

Page 28, in paragraph 10.2.3, add new sentences to end of paragraph as follows:

"Various jurisdictions have requirements for posting non-refundable fees before excavations are carried out within public rights-of-way. The Contractor is responsible for the determination of the requirement for each specific project and for any required deposits."

15. GC 11.2 - CONTRACT SECURITY

Page 31, delete GC 11.2.1 in its entirety and replace with the following:

"11.2.1 The Contractor shall, prior to commencement of the Work, provide to the Owner a Performance Bond and a Labour and Materials Bond, each in the amount of 50% of the Total Amount Payable or an Irrevocable Letter of Credit in the amount of 20% of the Total Amount Payable. The Irrevocable Letter of Credit shall be issued by a certified financial institution for a period of no less than twelve (12) months after the issue of Substantial Performance Certificate. Include the cost of providing the Irrevocable Letter of Credit in Contract Price. Should it become apparent that the final cost of the project will exceed the Total Amount Payable by more than 10%, the Contractor shall arrange to have his bonds or Irrevocable Letter of Credit reissued, based on the projected final cost."

Page 31, add new clause GC 11.2.3 as follows:

"11.2.3 The Contract Security will be retained until the expiration of the Warranty Period."

16. GC 12.3 – WARRANTY

Page 22, add new clause GC 12.3.7 as follows:

"12.3.7 All work of repair or replacement carried out during the Warranty Period shall be maintained for a period of one (1) year from the date of the Engineer's acceptance of the work of repair or replacement notwithstanding that the Warranty Period expires before the expiration of the said year. This clause shall not apply to normal operation maintenance, which shall be carried out by the Owner."

17. Add new GC as follows:

GC 13 - EASEMENTS

.1 The acquisition or obtaining of easements in respect of the lands comprising the Site will be effected by the Owner.

.2 If the Contractor deems it advisable to acquire the right or rights to use, enjoy or occupy any additional or adjacent land or lands in order to facilitate the execution of the Works, the Contractor shall obtain such right or rights at own expense and shall, at all times, indemnify and save harmless the Authority from any and all claims arising from the acquisition of such right or rights or the use, enjoyment or occupancy of such lands or land.

END

SUPPLEMENTARY SPECIFICATIONS

INTENT OF THE SUPPLEMENTARY SPECIFICATIONS

.1 The Work of this Contract is to be constructed in accordance with the Standard Specifications for Municipal Services (2019 Revision) as developed and published by the Nova Scotia Road Builders Association - Consulting Engineers of Nova Scotia and the Joint Committee on Contract Documents, except as modified herein.

.2 These Supplementary Specifications modify the specification sections to which they refer.

.3 The Supplementary Specifications take precedence over the Specification to which they refer.

SECTION 00 21 00 – INFORMATION TO TENDERERS

Delete Section 00 21 00 in its entirety and replace with new section attached.

SECTION 00 41 43 – TENDER FORM

Delete Section 00 41 43 in its entirety and replace with new section attached.

SECTION 00 53 43 – FORM OF AGREEMENT

Delete Section 00 53 43 in its entirety and replace with new section attached.

SECTION 00 73 00 – SUPPLEMENTARY GENERAL CONDITIONS

Delete Section 00 73 00 in its entirety and replace with new section attached.

SECTION 01 10 00 - GENERAL REQUIREMENTS

Page 1, delete subsection 2 and replace with the following:

2. SUMMARY OF WORK .1 The project is located near Parrsboro, Nova Scotia. The Work consists of the connecting the new water production well to the existing system, reinstatement of all affected surfaces, and the supply, maintenance and subsequent removal of temporary environmental protection including sediment control fences. The well and well casing have been completed by others. The Work also includes the decommissioning of an existing water production well (#1) as well as the removal and off-site disposal, where noted, of buried electrical and water service lines.

Page 1, delete subsection 4 and replace with the following:

4. SETTING OUT THE WORK

.1 Set out the Work. Before the work of the Contract starts the Engineer will once only provide sufficient reference points to identify the site on the ground and maintain these, or re-establish them as required by a licenced surveyor as indicated in Section 00 73 00, clause 3.7.1, during the Contract period. Reference points to identify the site on the ground are provided on Project Drawings.

Page 2, delete subsection 7.1 and replace with the following:

7.1 SHOP DRAWINGS

.1 Submit shop detail or working drawings and manufacturer's data for all items requiring fabrication, on or off the Site, and for all proprietary equipment to the Engineer for review before any such items or equipment are incorporated into the Works. This review of Shop Drawings by Engineer is for the sole purpose of ascertaining conformance with the general design concept. This review shall not mean that Engineer approves the detailed design inherent in the Shop Drawings, responsibility for which remains with the Contractor submitting them, and such review shall not relieve the Contractor of responsibility for errors or omissions in Shop Drawings or of responsibility for meeting all requirements of the Construction and Contract Documents. The Contractor is responsible for dimensions to be confirmed and correlated at the job site, for information that pertains solely to fabrication processes or to techniques of construction and installation, and for co-ordination of the work of all sub-trades.

.2 Submit electronic copies of all relevant shop drawings to the Engineer in PDF format. Where it is not practical to provide electronic copies and where approved by the Engineer, submit three (3) paper copies of shop drawings.

.3 Submit shop drawings with such promptness as not to cause delay in this work, or of the works of any Sub-Contractors.

.4 The information submitted shall clearly show the dimensions, materials or construction, performance, finish, service and installation requirements and other characteristics in sufficient detail to permit the Engineer to evaluate the suitability of the articles for the use intended.

.5 Make corrections required by the Engineer as noted,

and resubmit corrected copies to the Engineer for review before fabrication.

.6 The Engineer will mark comments on one (1) copy of each drawing or document submitted and will return this as an electronic copy for the Contractor's purposes.

.7 The Engineer will not review shop drawings and other material involving a large amount of work in those instances where it is evident that the Contractor has not used all the information contained in, or where such details are obviously not consistent with the Contract Documents.

.8 Provide the section number of the specification with each submitted shop drawing for the purpose of identification.

Page 3, add new subsection 8.3 as follows:

.3 Record Drawings:
- .1 After award of Contract, Engineer will provide a three hard copies and one electronic Autocad file for purpose of maintaining record drawings. Accurately record deviations from Contract Documents caused by site conditions and changes ordered by Engineer.
- .2 Identify drawings as "Project Record Copy". Maintain in new condition and make available for inspection on site by Engineer.
- .3 On completion of Work and prior to final inspection, submit record documents to Engineer.

Page 5, add new subsection 12.6 as follows:

.6 Maintain one way traffic flow at all times.

Page 7, after subsection 16, add new subsections as follows:

17. PHOTOGRAPHS

.1 Prior to commencement of the Works, the Engineer may arrange for photographs to be taken of the site and those properties adjacent to the site.

.2 Accompany the Engineer during the taking of photographs to make any comments on the conditions of the site or adjacent properties.

.3 Engineer will retain photographs, together with a written report, on the condition of existing roads,

sidewalks, trees, lawns, and adjacent properties as determined by mutual agreement as a record of existing conditions prior to the start of the Work.

18. UTILITIES

.1 Do not operate valves, electrical and telephone controls on existing utility systems.

.2 Apply to the utility having jurisdiction for permission to operate such systems if it becomes necessary, and only operate such system in accordance with and in the presence of a representative of the utility company affected.

.3 Include an amount in the contract price to cover the cost of having a utility company representative present when the Work passes under or in close proximity to underground cables, structures or utility poles.

.4 Provide a letter from the utility affected stating that any services damaged during construction have been repaired to the utility company's approval.

SECTION 01 22 00 – MEASUREMENT AND PAYMENT

Delete Section 01 22 00 in its entirety and replace with new Section, attached.

SECTION 01 57 00 - ENVIRONMENTAL PROTECTION

Page 1, add new subsections 1 and 2 as follows, and renumber subsequent subsections:

1. WORK INCLUDED

.1 This section specifies requirements for providing temporary erosion and sedimentation control measures, if required or directed.

2. RELATED WORK

.1 Earthwork: Section 31 20 00

Page 3, add new subsection 8.4 as follows:

.4 When required, erosion and sediment control plans to be submitted for approval of Nova Scotia Environment (NSE) and the Owner prior to start of construction and should be reviewed at the project pre-construction meeting.

SECTION 31 20 00 - EARTHWORK

Page 3, add new subsections 1.6 and 1.7 as follows:

1.6 EXISTING STRUCTURES AND UNDERGROUND SERVICES

.1 Furnish temporary support, adequate protection and maintenance of all underground and surface structures, drains, sewers, power lines and other existing site items affected by the Works. Notify Engineer before altering or supporting an existing structure.

.2 Restore, upon completion of the Work, structures that have been disturbed.

.3 Proceed with caution in excavation and preparation of trenches so exact location of all buried pipes and services and underground structures may be determined and be responsible for repair of pipes, services, and structures when broken or otherwise damaged.

.4 During progress of the Works, do not unreasonably interfere with flow of sewage or water in any existing sewer or drain. Do not jeopardize the public health in any way. Wherever sanitary sewage is pumped or diverted, it shall be carried entirely in closed pipes. Temporary diversion of sanitary sewage through open channel shall not be permitted.

.5 Whenever it is necessary to explore and excavate to determine the location of existing underground utility structures, make such examination and excavation at no additional cost to the Contract.

Page 3, delete subsection 2.1.1 and replace with the following:

.1 Selected Backfill: common material from site excavation, free from stumps, trees, roots, sod, organics, rocks, boulders, masonry and any other deleterious materials. Material to be well graded having a maximum particle size not exceeding 150mm with 40% to 60% of the material retained on 75mm sieve.

Page 6, delete subsection 2.1.5 and replace with the following:

.5 Gravels: Crushed and screened rock. Material shall consist of hard and durable stone particles meeting the physical requirements of Division 3, Section 2 of the Nova Scotia Transportation and Public Works Standard Specification for Highway

Construction and Maintenance. Gradation shall be dense, well graded and as follows:

Page 6, delete subsection 2.1.8 and replace with the following:

.8 Pipe bedding material: type 1 gravel, as specified.

Page 6, add new subsection 2.1.10 as follows:

.10 Insulation: Below grade insulation: extruded, closed cell, cellular foamed polystyrene to CAN/ULC S701, Type 3, thickness indicated, shiplapped edges.
.1 Acceptable product: Styrofoam SM by Dow Chemical Canada Inc., Celfort 300 as manufactured by Owens Corning, or approved equivalent.

Page 7, delete subsection 3.4 in its entirety. Blasting will not be permitted. Remove rock, if encountered, by mechanical means.

Page 9, delete subsection 3.7.7.3 and replace as follows:

.3 Pipe bedding material to 98% standard Proctor density.

Page 11, add new subsections 3.12 and 3.13 as follows:

3.12 DISPOSAL OF SURPLUS EXCAVATED MATERIAL

.1 Dispose of surplus excavated material off-site as directed by the Engineer or Owner.

3.13 RESTORATION

.1 Reinstate disturbed areas to condition, elevation and thickness equal to or better than that which existed before excavation, as specified in Section 32 98 00.

SECTION 32 98 00 - REINSTATEMENT

Page 1, delete subsection 2.1.1 and replace with the following:

2.1 MATERIALS

.1 Gravel: Type indicated as specified in Section 31 20 00.

Page 2, delete subsection 3.1.1 and replace with the following:

3.1 GENERAL

.1 Reinstate all disturbed surfaces using existing material types to the levels, elevations and dimensions which existed prior to construction and as detailed on the Drawings.

SECTION 33 11 00 – WATERMAIN

Page 5, delete subsection 2.1.1 and replace with the following:

2.1 GENERAL	.1	All watermain installed in the Work to be PVC DR 18, size as indicated.

SECTION 39 00 00 – STANDARD DETAILS

Delete Standard Details as applicable and replace with new details on the Drawings.

Add the following new sections:

Section 26 05 00 – Electrical General Requirements

Section 33 20 00 – Well Pump and Accessories

END

GENERAL

1. Unit prices for all items in the Schedule of Quantities and Unit Prices are full compensation for the work necessary to complete each item in the contract and in combination for all work necessary to complete the Work as a whole.

2. **Include all of the following as required where individual quantities are not provided in the Tender Form: mobilization, demobilization, traffic control, location of in-ground services by external utilities and coordination of work by external utilities (NSPI, Aliant, etc.), environmental protection, protection of existing trees, common excavation, shoring, dewatering, backfilling, bedding, compaction, disposal of surplus materials, protective coatings, thrust blocks, anodes, mechanical joint restraints, marker tape, reinstatement of all disturbed surfaces with matching materials and thicknesses, testing, pipe cleaning, disinfection, marker stakes, recording as-constructed features, video inspection, and all incidentals.**

3. The unit and lump sum prices for all items in the Form of Tender "Schedule of Quantities and Unit Prices" shall include the cost for furnishing all materials, labour, tools, and equipment necessary to complete the work in accordance with the Contract, the Drawings and Specification, and shall cover all costs of surety, mobilization, permits, assistance to the Engineer and site offices and other general costs. Each item shall include for all necessary supervision, labour, materials, plant and services, security provisions, survey and all operations and allowances customary and necessary to complete each item and the Contract as a whole notwithstanding the fact that not every such necessary operation is mentioned or included specifically for measurement.

4. All measurement shall be along a horizontal plane unless otherwise indicated.

5. The numbers of items described below correspond to the numbers of the items in Section 00 41 43, subsection 4, Schedule of Quantities and Unit Prices.

6. Provisional items shall mean that the unit price as tendered shall be included in the estimated Contract Price and that the Owner reserves the right to delete all or portions of this item from the estimated Contract Price.

.1. Decommissioning of Well No. 1

Unit of Measurement: Lump Sum (L.S.)

This item includes: all materials and labour to decommission and abandon production well No. 1 where shown on the Project Drawings in accordance with NSE Water Well Decommissioning Guidelines. The existing sensor and pump must be turned over to the Owner.

.2 Pump Work

Unit of Measurement: Lump Sum (L.S.)

This item includes: supply, installation, testing and start-up by the well manufacturer’s technical representative of new well pump complete with junction box, timber post, insulation tape, heat shrink and mechanical, pitless adaptor, riser column, pump, torque arrestor, conduit, sensors, cabling, head cap and all fittings for the complete and functional installation.

.3 Civil

Unit of Measurement: Lump Sum (L.S.)

This item includes: removal of existing watermain and the recovery and salvage of underground power cable from existing ducts; supply and installation of new watermain, complete with all fittings, install new conduit and pull existing cables to new junction box attached to treated timber post, connection of watermain and cabling to new well.

.4 Excavation of Unsuitable Material (Provisional)

Unit of Measurement: cubic metres (m^3)

Method of Measurement: surface-to-surface volume between topographical survey measurements taken before and after excavation of unsuitable material.

This item includes: excavation and off-site disposal of unsuitable material where encountered. This item also includes the provision of imported fill to replace unsuitable material excavated in this item.

END

PART 1 - GENERAL

1.1 WORK INCLUDED

.1 Removal of existing electrical equipment from existing well.

.2 Supply and installation of conduit and salvaging conductors.

.3 Supply of sensors and junction box for new water well.

1.2 REFERENCES

.1 CSA C22.1-2018, Canadian Electrical Code, Part 1, Safety Standard for Electrical Installations.

.2 CSA C22.2 No. 0.4-17, Bonding of Electrical Equipment.

.3 CSA C22.3 No.1-15, Overhead Systems.

.4 CSA C22.3 No. 7-15, Underground Systems.

.5 CAN3-C235-83(R2015), Preferred Voltage Levels for AC Systems, 0 to 50 000 V.

.6 EEMAC 2Y-1-1958, Standard for CEMA Light Gray Colourfor Indoor Switchgear.

1.3 CODES AND STANDARDS

.1 Do complete installation in accordance with CSA C22.1, Canadian Electrical Code, Part 1, Safety Standard for Electrical Installations and local regulations, except where specified otherwise.

.2 Do overhead systems in accordance with CSA C22.3 No.1, and underground systems in accordance with CSA C22.3 No. 7, except where specified otherwise.

.3 Conform to CAN3 C235, Preferred Voltage Levels for AC Systems, 0 to 50 000V.

.4 Comply with CSA electrical bulletins in force at the time of tender submissions.

1.4 CARE, OPERATION AND START-UP

.1 Instruct operating personnel in the operation, care and maintenance of equipment.

.2 Arrange and pay for services of manufacturer's factory service engineer to supervise start-up of installation, check, adjust, balance and calibrate components.

.3 Except where note otherwise, provide these services for such period, and for as many visits as necessary to put equipment in operation, and ensure that operating personnel are conversant with aspects of its care and operation.

1.5 VOLTAGE RATINGS

.1 Operating voltages: to CAN 3-C235.

.2 Devices and equipment to operate satisfactorily at 60 Hz within normal operating limits established by above standard. Equipment to operate in extreme operating conditions established in above standard without damage to equipment.

1.6 MATERIALS AND EQUIPMENT

.1 Provide materials and equipment in accordance with Section 01 00 00.

.2 Equipment and material to be CSA certified or certified by an agency approved by the Electrical Inspection Department.

.3 Where there is no alternative to supplying equipment which is not CSA certified, obtain special approval, in writing, from Electrical Inspection Department.

.4 Factory assemble control panels and component assemblies.

.5 Use stainless steel fasteners throughout for all conduits, cables and equipment. Fasteners include nuts, bolts, screws and washers.

1.7 JUNCTION BOXES

.1 General: Provice junction, complte with cover. Provide junction box longer than 500 mm in any dimension complete with continuously hinged cover.

1.7 JUNCTION BOXES (Cont'd)

.2 Size and Tap, Junction and Pull Boxes: in accordance with CSA C22.1.

.3 Provide NEMA Type 4 or 4X water-tight boxes with clamped, threaded or screw-fastened covers.

.4 NEMA 4 and 4X box external hardware (hinges, latches, etc.) to be stainless steel.

.5 Install junction box where shown on the Project Drawings.

.6 Provide junction box to suit field conditions and where required by the Canadian Electrical Code.

.7 Provide all required mounting hardware.

.8 Bond all junction boxes in accordance with CSA C22.2 No. 0.4.

1.8 WIRING TERMINATIONS

.1 Lugs, terminals, screws used for termination of wiring to be suitable for either copper or aluminum conductors.

1.9 MANUFACTURERS' AND CSA LABELS

.1 Visible and legible after equipment is installed.

1.10 WARNING SIGNS

.1 Provice warning signs as specified and to meet requirements of Electrical Inspection Department. Include arc flash hazard equipment labels.

.2 Treated polyethylene plastic or coated rust free aluminum signs, minimum 180 x 250 mm.

1.11 PROTECTION

.1 Protect exposed live equipment during construction for personnel safety.

.2 Shield and mark live parts "LIVE 120 VOLTS", or with appropriate voltage in English.

1.12 CONDUIT AND CABLE INSTALLATION

.1 Install conduit and sleeves prior to pouring of concrete. Sleeves through concrete: plastic, sized for free passage of conduit, and protruding 50 mm.

.2 If plastic sleeves are used in fire rated walls or floors, remove before conduit installation.

.3 Arrange and pay for holes through exterior walls; provide flashings and make weatherproof.

.4 Install conduits to be embedded or plastered over, neatly and close to the building structure so furring can be kept to a minimum.

1.13 FIELD QUALITY CONTROL

.1 Insulation Resistance Testing:
.1 Megger circuits, feeders and equipment up to 350 V with 500 V instrument.
.2 Megger 350-600 V circuits, feeders and equipment with a 1000 V instrument.
.3 Check resistance to ground before energizing.
.4 Provide type-written tabular report indicating test results.

1.14 CLEANING

.1 Do final cleaning in accordance with Section 01 10 00.

1.15 QUALITY ASSURANCE

.1 Applicable standards:
.1 Electrical Work to conform with the requirements and recommendations of the latest edition of the Canadian Electrical Code and all local codes and ordinances. In conflicts between codes, the more stringent requirements will govern.
.2 In no instance will the standard established by this specification be reduced by any of the codes or standards referred to in this specification.
.3 Standards: the specifications and standards of the following organizations are by reference made as part of these specifications and all electrical Work, unless otherwise indicated, must comply with their requirements and recommendations wherever applicable.
.4 Canadian Standard Association (CSA).
.5 Institute of Electrical and Electronics Engineers (I.E.E.E.).

1.15 QUALITY ASSURANCE (Cont'd)

.1 (Cont'd)

.6 Instrument Society of America (I.S.A.).

.7 American Society for Testing Materials (A.S.T.M.).

.8 Insulated Power Cable Consultants Association (I.P.C.E.A.).

.9 National Electrical Manufacturer's Association (N.E.M.A.).

.10 National Fire Protection Association (N.F.P.A.).

.11 Underwriter's Laboratories of Canada (U.L.C.).

.12 Joint Industrial Council (JIC).

PART 1 - GENERAL

1.1 WORK INCLUDED

.1 This Section specifies requirements for performing all operations necessary to supply and install a submersible deep well pump, continuous pump cables from pump to ground-level junction box, a low level detection and reset system pitless adapter, riser piping, check valve, continuous well level sensor and all components required for complete well pump installation No. 5 as indicated on Drawings.

.2 The well has been dug and a well casing has been installed by other under a separate contract.

1.2 REFERENCES

.1 ASTM D1784-2011, Standard Specification for Rigid PVC Compounds and Chlorinated PVC Compound.

.2 ASTM D1785-15E1, Standard Specification for Poly (Vinyl Chloride) (PVC) Plastic Pipe Schedules 40, 80 and 120.

.3 ASTM D2837-2013e1, Standard Test Method for Obtaining Hydrostatic Design Basis for Thermoplastic Pipe Materials.

.4 NSF14-2018, Plastic Piping System Components and Related Materials.

.5 NSF61-2019, Drinking Water System Components - Health Effects.

.6 AWWA A100-15 Water Wells.

1.3 RELATED WORK

.1 Water Main: Section 33 11 00

1.4 STANDARDS

.1 The work under this Section to be in accordance with Nova Scotia Environment (NSE) Well Construction Regulations, AWWA A100, and the National Plumbing Code of Canada.

1.5 QUALIFICATIONS

.1 The installation contractor must be a certified deep well pump installer, in the Province of Nova Scotia. All persons performing the work shall

have a Certificate of Qualification issued by Nova Scotia Environment.

1.6 REPORTS

.1 On completion of work, submit to the Owner and NSE a report containing:
- .1 Nova Scotia Environment Pump Installation Report.
- .2 Proof of report submission to Nova Scotia Environment.

1.7 SUBMITTALS

.1 Provide submittals in accordance with Section 01 10 00.

1.8 WASTE MANAGEMENT AND DISPOSAL

.1 Maintain site in tidy condition free from accumulation of waste products and debris.

.2 Upon attaining Substantial Performance of the Work remove surplus products, tools, machinery and equipment.

.3 Completion of cleanup is required for Substantial Performance of the Work.

1.9 SAFETY

.1 Observe construction safety measures of Provincial Government, including but not limited to the Occupational Health and Safety Act; Workers' Compensation Board, and Municipal authority, provided that in any case of conflict or discrepancy the more stringent requirement shall apply.

.2 WHMIS:
- .1 Comply with requirements of Workplace Hazardous Materials Information System (WHMIS) regarding use, handling, storage, and disposal of hazardous materials; and regarding labelling and provision of material safety data sheets acceptable to Labour Canada and Health and Welfare Canada.

.3 Exercise pollution and environmental control of construction activities as required during the Work.

PART 2 - PRODUCTS

2.1 GENERAL

.1 Supply and install a well pump and all accessories.

.2 Use new material only.

.3 Use pipe fittings of same standard as pipe casing.

2.2 WELL PUMP AND ACCESSORIES

.1 Provide deep well variable speed compatible pump complete with integral cable suitable for installation in well as indicated. Submit shop drawings for approval.

.2 Well pump performance are as follows:

Existing Grade (m above sea level): 14.0
Well Borehole diameter (mm) = 200
Well Depth (m): 14.3

Pump Installation below grade (m): TBD
Duty Pumping rate (L/min): 655
Minimum Suction head (m): TBD
Total Dynamic Head (m): 17

.3 Discharge Pipe: The discharge pipe (riser type) to be PVC schedule 80 pipe with PVC coupling system in uniform lengths.

.1 Acceptable Product: CertainTeed Coupling System or approved equivalent.

.4 Pump to include integral check valve, or externally coupled low pressure drop, self-cleaning lift type check valve.

.5 All external pump materials: 304 S.S.

.6 Shaft: 431 S.S.

.7 Strainer: 304 S.S.

.8 Provide suitably sized stainless steel lifting wire securely fastened to pump motor and extending along riser pipe to underside of sanitary seal. Provide additional wire or coupling mechanism to attach lifting hook at

wellhead for pump extraction.

.9 Provide pump complete with 30m of internally spliced power cable sized as required by manufacturer.

.10 Motor to be suitable for operation with VFD and high efficiency.

.11 Acceptable Products:
.1 Grundfos, Pleuger, Webtrol or approved equivalent.

2.3 PITLESS ADAPTER

.1 Provide a pitless adapter rated for pipe diameter of riser pipe and well casing diameter. Also include a gasketted adapter assembly, pump torque arrester devices and provision for electrical connections in accordance with Division 26 specifications.

PART 3 - EXECUTION

3.1 INSTALLATION

.1 Take field measurements to achieve proper fitting of equipment.

.2 Install as per the manufacturer's recommendation.

.3 Inspect all materials inserted into the well and remove dirt and foreign matter.

.4 Swab all materials and tools with 50% chlorine solution prior to use.

.5 Do not lay construction materials directly on ground, but lay them on clean storage platforms approved by the Engineer.

.6 Minimize exposure time of construction materials between unpackaging and installation into well.

3.2 WELL DISINFECTION

.1 After all work inside well has been completed fill well with chlorine solution and replenish as required so that a chlorine residual of 50 ppm is maintained in all parts of well for a minimum period of 2 hours. Provide and operate a visual comparator to determine chlorine residual as directed. Dispose of chlorinated test water as

per Section 33 11 00.

3.3 INSPECTION, TESTING AND START-UP

.1 Provide the services of competent servicemen, mechanics or other trained personnel of the equipment supplier's or manufacturer's to check the complete installation and be present for start-up of the equipment. Submit a written report signed by the equipment manufacturer's representative to the Engineer stating the following:

.1 That a satisfactory installation of equipment has been performed and outlining any modifications that have been made as a result of the commissioning or testing of the equipment at no additional cost to the Contract.

.2 That the equipment is now ready for permanent operation.

.3 Test installed equipment with actual plant operation to verify hydraulic balancing, head loss and effluent quality. Make adjustments required to place equipment into operation and to optimize the treated water quality.

.7 Have the equipment manufacturer's representative fully instruct the permanent operator of the equipment in the proper operation and maintenance of all equipment at no additional cost to the Contract.

.8 Advise in writing at least one (1) week in advance of the proposed date for testing and start-up. Conduct all tests in the presence of the Engineer.

.9 Replace defective material or equipment with new material or equipment. Bear costs including re-testing and repairing.

.10 Assume a minimum period of two (2) days on site for skilled supervision and instruction and a minimum of two (2) trips to the site should be assumed by the equipment manufacturer. Provide as many trips and days on site to complete the installation and put the equipment into satisfactory operation.

END

Tender No.T-MCC-2001

190841.01 Parrsboro – Well No.5 Development	
Sheet Number	Sheet Title
00	Cover Sheet
C01	Existing Well Site
C02	Proposed Well Site
C03	Well Details

MUNICIPALITY OF THE COUNTY OF CUMBERLAND

PARRSBORO - WELL No. 5 DEVELOPMENT



CBCL LIMITED
Consulting Engineers

Project No. 190841.01

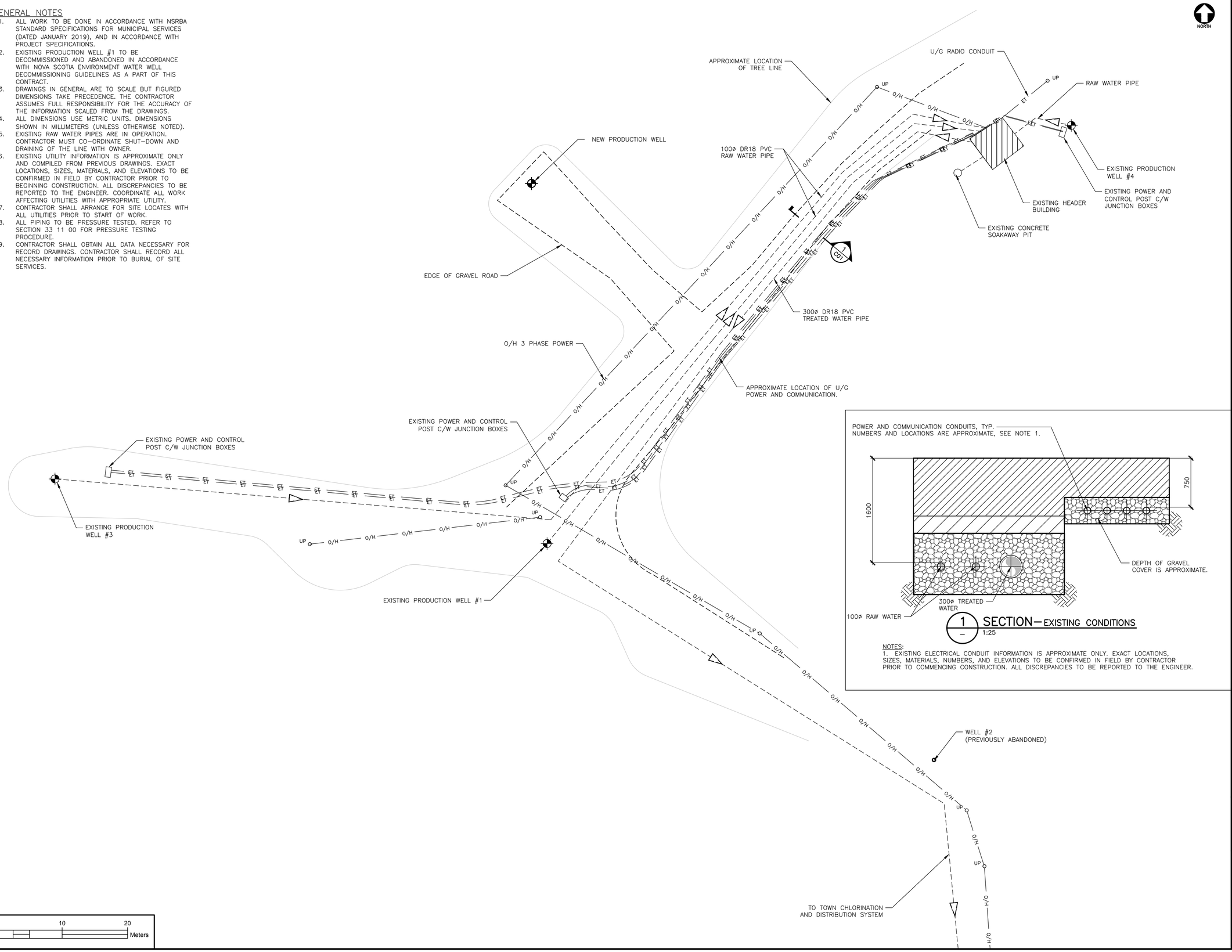
ISSUED
FOR TENDER

JANUARY 16, 2020

DRAWING NAME: Y:\VAL1FAX\DATA\PROJECTS\190841.01 PARRSBORO WELL DEVELOPMENT\20 CAD\01 CIVIL\04 DRAWING SHEETS\00 COVER SHEET.DWG LAYOUT NAME: COVER SHEET PLOT DATE: January-09-20 11:27:20 AM CAD OPERATOR: ADHENKOL2

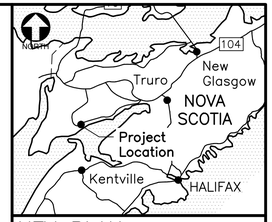
GENERAL NOTES

1. ALL WORK TO BE DONE IN ACCORDANCE WITH NSRBA STANDARD SPECIFICATIONS FOR MUNICIPAL SERVICES (DATED JANUARY 2019), AND IN ACCORDANCE WITH PROJECT SPECIFICATIONS.
2. EXISTING PRODUCTION WELL #1 TO BE DECOMMISSIONED AND ABANDONED IN ACCORDANCE WITH NOVA SCOTIA ENVIRONMENT WATER WELL DECOMMISSIONING GUIDELINES AS A PART OF THIS CONTRACT.
3. DRAWINGS IN GENERAL ARE TO SCALE BUT FIGURED DIMENSIONS TAKE PRECEDENCE. THE CONTRACTOR ASSUMES FULL RESPONSIBILITY FOR THE ACCURACY OF THE INFORMATION SCALED FROM THE DRAWINGS.
4. ALL DIMENSIONS USE METRIC UNITS. DIMENSIONS SHOWN IN MILLIMETERS (UNLESS OTHERWISE NOTED).
5. EXISTING RAW WATER PIPES ARE IN OPERATION. CONTRACTOR MUST CO-ORDINATE SHUT-DOWN AND DRAINING OF THE LINE WITH OWNER.
6. EXISTING UTILITY INFORMATION IS APPROXIMATE ONLY AND COMPILED FROM PREVIOUS DRAWINGS. EXACT LOCATIONS, SIZES, MATERIALS, AND ELEVATIONS TO BE CONFIRMED IN FIELD BY CONTRACTOR PRIOR TO BEGINNING CONSTRUCTION. ALL DISCREPANCIES TO BE REPORTED TO THE ENGINEER. COORDINATE ALL WORK AFFECTING UTILITIES WITH APPROPRIATE UTILITY.
7. CONTRACTOR SHALL ARRANGE FOR SITE LOCATES WITH ALL UTILITIES PRIOR TO START OF WORK.
8. ALL PIPING TO BE PRESSURE TESTED. REFER TO SECTION 33 11 00 FOR PRESSURE TESTING PROCEDURE.
9. CONTRACTOR SHALL OBTAIN ALL DATA NECESSARY FOR RECORD DRAWINGS. CONTRACTOR SHALL RECORD ALL NECESSARY INFORMATION PRIOR TO BURIAL OF SITE SERVICES.



1 SECTION—EXISTING CONDITIONS
1:25

NOTES:
1. EXISTING ELECTRICAL CONDUIT INFORMATION IS APPROXIMATE ONLY. EXACT LOCATIONS, SIZES, MATERIALS, NUMBERS, AND ELEVATIONS TO BE CONFIRMED IN FIELD BY CONTRACTOR PRIOR TO COMMENCING CONSTRUCTION. ALL DISCREPANCIES TO BE REPORTED TO THE ENGINEER.



KEY PLAN
NOT TO SCALE

LEGEND
- WATERMAIN (EX.)
- O/H — OVERHEAD POWER LINE (EX.)
- ET — UNDERGROUND POWER (EX.)
- ROAD RIGHT OF WAY
- APPROXIMATE TREELINE
- EXISTING HEADER BUILDING
- EXISTING/PROPOSED WELL
- UP UTILITY POLE (EX.)

No.	Description	Date	By
2	ISSUED FOR TENDER	16/01/20	AE
1	ISSUED FOR REVIEW	04/12/19	AE

Revision or Issue

MUNICIPALITY OF THE COUNTY OF COMBERLAND
PARRSBORO-WELL No.5 DEVELOPMENT

CIVIL

WELL FIELD SITE PLAN

EXISTING CONDITIONS

CBCL LIMITED
Consulting Engineers

CBCL No	Contract No	Date	Scale
190841.01	T-MCC-2001	04/12/19	1:250

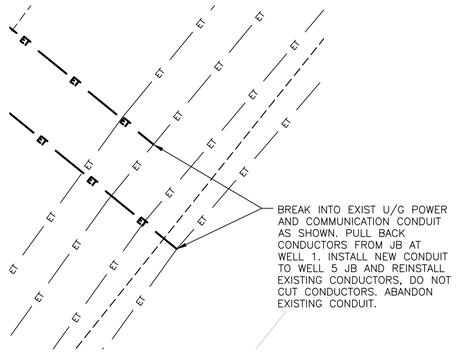
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AE	AE
Checked	Approved
AB	AB

Sheet No 1 of 3

Drawing No **C01**

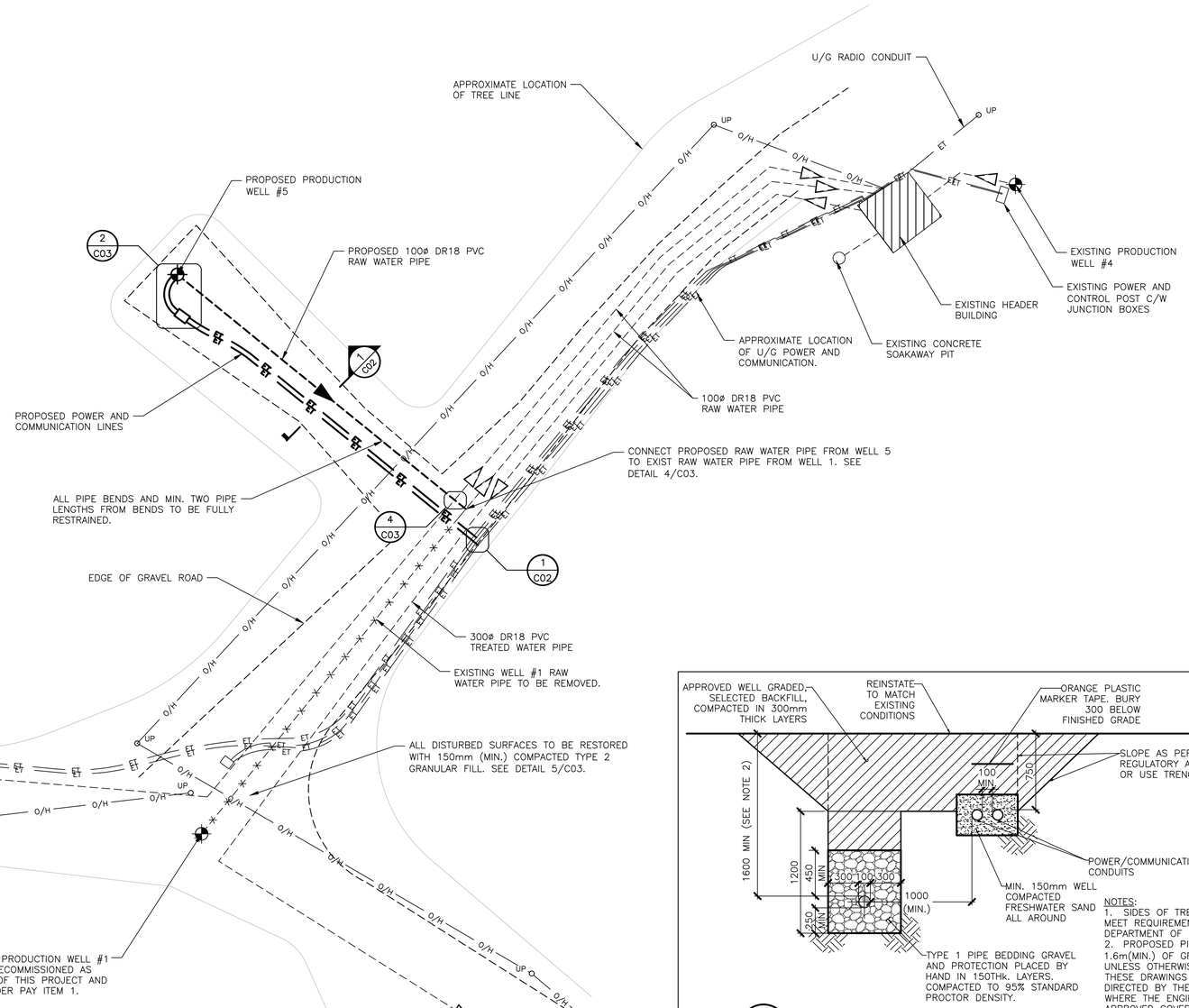
REGISTERED PROFESSIONAL ENGINEER — PROVINCE OF NOVA SCOTIA — J. A. BAILLIE — 7781 — Jan 15/20

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1 / C02 DETAIL– CONDUIT CONNECTION
1:20

NOTES
1. CONTRACTOR TO CONFIRM CONDUITS TO BREAK INTO BEFORE COMMENCING CONSTRUCTION. CONTRACTOR TO REPORT ANY DISCREPANCIES TO THE ENGINEER BEFORE PROCEEDING.
2. CONTRACTOR IS TO PROTECT CONDUCTORS FROM DAMAGE. ANY DAMAGED CONDUCTORS TO BE REPLACED AT CONTRACTOR'S EXPENSE.



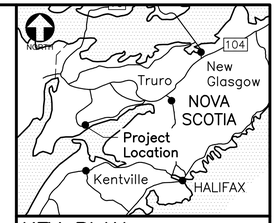
1 / – SECTION– PROPOSED TRENCH DETAIL
1:25

NOTES:
1. SIDES OF TRENCHES TO MEET REQUIREMENTS OF DEPARTMENT OF LABOUR.
2. PROPOSED PIPE WILL HAVE 1.6m(MIN.) OF GROUND COVER UNLESS OTHERWISE SHOWN IN THESE DRAWINGS OR WHERE DIRECTED BY THE ENGINEER. WHERE THE ENGINEER HAS APPROVED COVER LESS THAN 1.6m, PIPE IS TO HAVE TWO 50mm THICK HIGH DENSITY RIGID INSULATION, AS PER DETAIL 1/C03.

PUMP INFORMATION

WELL	DEPTH (m)	UPPER CASING DIA. (mm)	LOWER CASING DIA. (mm)	PUMP SETTING (DEPTH, METERS BELOW TOP FLANGE)	PUMP CAPACITY (L/m)	PUMP HP
1	18.4	150	–	9.4	N/A	N/A
3	29.3	250	200	22	755	15
4	18.0	200	200	10.70	655	15
5	14.3	200	200	TBD IN FIELD	655	15

1:250 0 10 20 Meters



KEY PLAN
NOT TO SCALE

LEGEND
- WATERMAIN (EX.)
- WATERMAIN (PR.)
- O/H OVERHEAD POWER LINE (EX.)
- ET UNDERGROUND POWER (EX.)
- ET UNDERGROUND POWER (PR.)
- WATERMAIN (TO BE REMOVED)
- ROAD RIGHT OF WAY
- APPROXIMATE TREELINE
- EXISTING HEADER BUILDING
- EXISTING/PROPOSED WELL
- UP UTILITY POLE (EX.)

NOTES
1. CONTRACTOR WILL NOT BE PAID FOR ANY EXCAVATION OUTSIDE OF THE TRENCH AS SHOWN IN SECTION 1.

No.	Description	Date	By
2	ISSUED FOR TENDER	16/01/20	AE
1	ISSUED FOR REVIEW	04/12/19	AE

Revision or Issue

MUNICIPALITY OF THE COUNTY OF CUMBERLAND
PARRSBORO–WELL No.5 DEVELOPMENT

CIVIL

WELL FIELD SITE PLAN

PROPOSED CONDITION

CBCL LIMITED
Consulting Engineers

CBCL No	Contract No	Date	Scale
190841.01	T-MCC-2001	04/12/19	1:250

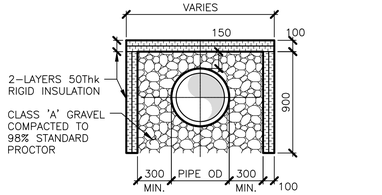
REGISTERED PROFESSIONAL ENGINEER * PROVINCE OF NOVA SCOTIA * J. A. BAILLIE 7781 Jan 15/20

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Checked	Approved
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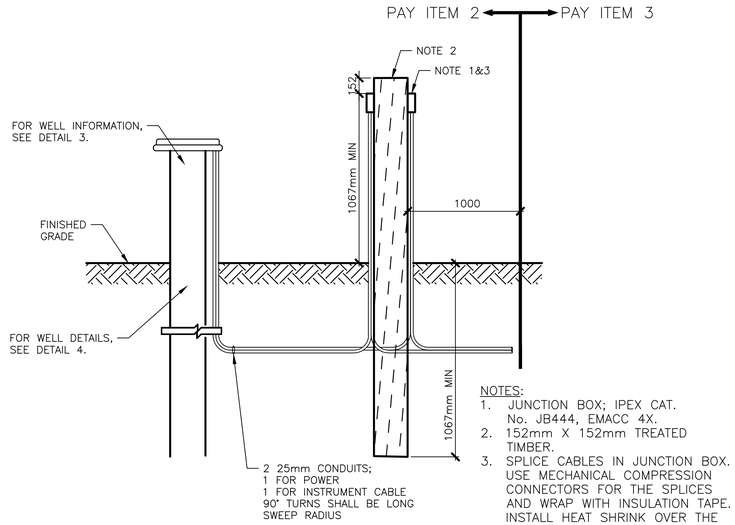
Sheet No 2 of 3

Drawing No C02

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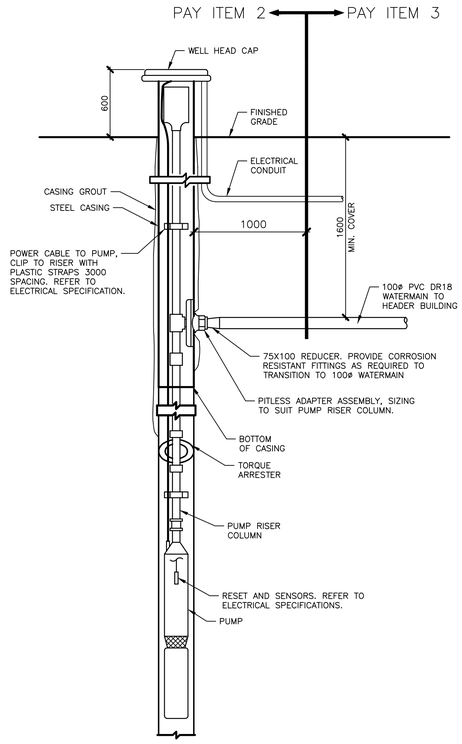


1 — DETAIL—PIPE INSULATION
1:25 (WHERE COVER LESS THAN 1.60m)



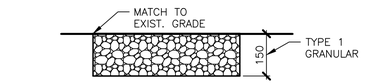
NOTES:
1. JUNCTION BOX; IPEX CAT. No. JB444, EMACC 4X.
2. 152mm X 152mm TREATED TIMBER.
3. SPLICE CABLES IN JUNCTION BOX. USE MECHANICAL COMPRESSION CONNECTORS FOR THE SPLICES AND WRAP WITH INSULATION TAPE. INSTALL HEAT SHRINK OVER THE SPLICES.
4. DO NOT SPLICE CABLES WITHIN WELLS.

2 — DETAIL—TYPICAL WELLHEAD AND JUNCTION BOX DETAIL
1:25

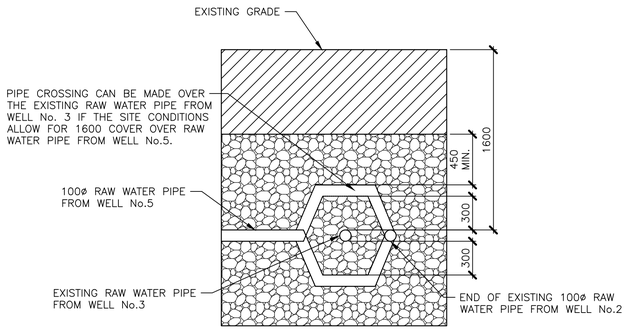


3 — DETAIL—WELL PUMP No.5 INSTALLATION
1:25

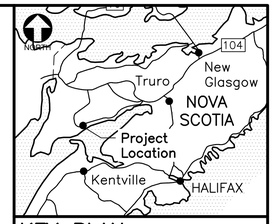
NOTES:
1. ELEVATIONS/DEPTHS OF PUMP AND SENSORS TO BE PROVIDED DURING SHOP DRAWINGS.



5 — DETAIL—GRAVEL AREA REINSTATEMENT
1:10



4 — DETAIL—CONNECTION TO EXISTING MAIN
1:25



KEY PLAN
NOT TO SCALE

No.	Description	Date	By
2	ISSUED FOR TENDER	16/01/20	AE
1	ISSUED FOR REVIEW	04/12/19	AE

Revision or Issue

MUNICIPALITY OF THE COUNTY OF CUMBERLAND
PARRSBORO–WELL No.5 DEVELOPMENT

CIVIL

WELL FIELD DETAILS

CBCL LIMITED
Consulting Engineers

CBCL No	Contract No	Date	Scale
190841.01	T-MCC-2001	04/12/19	AS SHOWN

Designed	Drawn
AE	AG
Checked	Approved
AB	AB

Sheet No 3 of 3

Drawing No C03

REGISTERED PROFESSIONAL ENGINEER — PROVINCE OF NOVA SCOTIA — Jan 15/20 — J. A. BAILLIE — 7781

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