

# **TOBIQUE FIRST NATION**



# **DIVISION 00 - NOTICE OF TENDER FOR CONSTRUCTION WORKS**

# NEQOTKUK KCIW KNICANEWEK SPORTS AND RECREATION PARK – PHASE 2

EVOQ project no: 9223-18-00

## **ISSUED FOR TENDER**

2021-09-03

#### GENERAL REQUIREMENTS

#### **DIVISION 00 - NOTICE OF TENDER FOR CONSTRUCTION WORKS**

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# NOTICE OF TENDER

PROJECT'S TITLE:	NEQOTKUK KCIW KNICANEWEK SPORTS AND RECREATION PARK – PHASE 2
INSTITUTION:	TOBIQUE FIRST NATION
INSTALLATION:	NEQOTKUK KCIW KNICANEWEK SPORTS AND RECREATION PARK
VILLAGE:	TOBIQUE FIRST NATION, NEW BRUNSWICK

TOBIQUE FIRST NATION, based in New Brunswick, is requesting bids for construction works for the project mentioned in the above title.

## **CLOSING DATE FOR SUBMISSION**

- The bid must be received by email or other web transmittal **<u>BEFORE 4 PM</u>**, **SEPTEMBER 23**, 2021.
- The original bid must be delivered as indicated below.
- Any submissions received after the closing time will not be accepted for consideration.
- The envelope containing the bid documents must bear the following: DO NOT OPEN—TENDER DOCUMENT NEQOTKUK KCIW KNICANEWEK SPORTS AND RECREATION PARK – PHASE 2 – TOBIQUE FIRST NATION The bid documents of the second form of the second secon

The bidder must write down, on the same face of the envelope, the name or the business or company name under which he operates, as well as his address.

• Bid openings will be closed to public and be evaluated by the Owner and Owner's Representatives.

The bids will be received on the following location:

dana_francis@hotmail.com	
TOBIQUE FIRST NATION	
13100 Route 105	
Tobique First Nation, NB	E7H 3Y2
	TOBIQUE FIRST NATION 13100 Route 105

The tenderers are responsible for the choice of subcontractors, both for their solvency and for the content of their bid. The tenderers must inform the subcontractors of the conditions that they intent to impose upon them and they must ensure that the subcontractors hold the required permits and licences.

#### **INFORMATION REQUEST**

The tenderers that wish to receive information or precision in view of this tender must mandatorily do so **in writing five (5) working days before the closing date for submissions** by communicating with the following person:

Resource person: Dana Francis, RICI Email address: <u>dana francis@hotmail.com</u>

The tenderers that wish to visit the site during tender period must communicate by e-mail with the person mentioned above. A 48hrs notice is required.

Bids will be evaluated using the **RFP Evaluation Form** appended to this document. The following criteria will be used for the evaluation: Price (80%), Experience (5%) and Aboriginal Inclusion Plan (15%).

The owner reserves the right to accept neither the lowest nor any of the bids received.

This notice of tender constitutes an integral part of the tender documents.

#### PROJECT CONTACTS

#### **Project Management**

Dana Francis RICI Project Manager Red Island Contractors Inc. 13094 Route 105 Tobique First Nation, NB, E7H 2Y9 E-mail : <u>dana\_francis@hotmail.com</u>

#### Landscape Architects

Jim Sackville, landscape architect BDA 828 Main Street Sussex, New Brunswick, E4E 2M5 E-mail : jsackville@bdaltd.ca

#### Engineers

Mireille Vautour, P. Eng. Roy Consultants 13, rue Costigan St. Edmundston, New Brunswick, E3V 1W7 E-mail : <u>mireille.vautour@royconsultants.ca</u>

#### **BIDDING DOCUMENTS LIST**

- Notice of Tender
- Closing Date for Submission
- Information Request
- Project Contacts
- Bidding Document List
- Instructions to Bidder
- CCDC2 2008 Stipulated Price Contract & Agreement between Owner and Contractor
- Bid Form
- Engagement Letter insurance
- Unit price
- Specification General Requirements

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- L-1 OVERALL LAYOUT PLAN CLEARING AND GRUBBING
- L-2 LAYOUT AND GRADING PLAN CENTRAL AREA
- L-3 LAYOUT AND GRADING PLAN UPPER AREA
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#### Civil

- C1 PLAN & PROFILE PARK ACCESS ROADWAY AND PARKING LOT
- C2 PLAN & PROFILE PARK ACCESS ROADWAY AND PARKING LOT
- C3 CROSS SECTIONS PARK ACCESS ROADWAY AND PARKING LOT
- C4 PLAN & PROFILE MUNICIPAL SERVICES PIPING
- C5 DETAILS AND SECTIONS
- C6 DETAILS AND SECTIONS

## **INSTRUCTIONS TO BIDDER**

1.	Work Description	KNICANEW	EK SPO	rs is for the construction of the <b>NEQOTKUK KCIW</b> <b>DRTS AND RECREATION PARK – PHASE 2</b> UE FIRST NATION.	
		recreation pa	ark in To	n is planning the construction of a sports and obique, New Brunswick. The documents part of the age are to be used for civil and landscaping work of	
		Contractor is to hire where appropriate heavy equipment operators, truck drivers and skilled laborers from the reserve. Project Manager will provide resumes.			
2.	Bid Compliance	The conformity of the bids will be confirmed after their complete analysis by the professional consultants, and this, as soon as possible after the opening of the bids.			
3.	Contract	Notwithstanding the use of the term "contract," this document will become the contract between the parties only if the <i>project owner</i> decides to award a contract to the winning bidder.			
4.	Bid Letter	.1	com	bidder must attach to its bid a letter from a guarantor pany stating that, in the event of being the successful er, the bidder will, at its expense, issue:	
			.1	A performance bond, worth fifty percent (50%) of the total amount submitted (including taxes), and	
			.2	A payment bond for wages, materials and services with a value equal to fifty percent (50%) of the total amount subject (including taxes).	
		.2	Asso	se bonds must conform to the Canadian Construction ociation standard formulas by adding the following se: "The surety waives the benefit of discussion and	

division."

EVOQARCE	ITECTORE / RED I	SLAND CONTRACTORS INC. / ROY CONSULTANTS / BDA LANDSCAPE ARCHITECTS
	.3	It is the responsibility of the <i>contractor</i> to ensure that each subcontractor to whom it grants a contract provides the necessary guarantees for the proper performance of its work in the form of a bond or in any other form it deems acceptable.
	.4	The commitment letter and the bonds must be issued at the bidder's expense. The bonds must be valid until the end of the project. These documents are a prerequisite for the formation of the contract and their absence will be interpreted as a refusal to contract from the winning bidder, resulting in the automatic rejection of his bid and the retention of the bid bond.
Contractor's Licence	licence in a	must include with its bid a copy of its building contractor's ccordance with the requirements of the Building Act and a ch of its subcontractors' licences.
List of Subcontractors	along with i	must provide a complete list of its subcontractors and send it ts bid. He must only hire subcontractors who hold an licence in force under the Building Act.
Documents and Sites Review	.1 In order to establish the extent of the obligations to which committing and the risks inherent in any work that he may perform, the bidder may, in its sole discretion, and at his c expense, before preparing his bid:	
	.1	Study the contract documents carefully to assess the scope of the work to be performed and the materials to be used;
	.2	Examine the site of the proposed works carefully in order to be aware, by their own examination, of all local conditions that may affect the performance of the contract as described in the tender documents;
	.3	Do a complete review of the nature and condition of the facilities located on and near the premises;

.4 Ensure general working conditions that will prevail during execution, storage and access to the premises;

5.

6.

7.

- .2 The bidder will not benefit from any errors or omissions in the plans and/or specifications.
- .3 The bidder must inform the *Owner* and the *Consultant Professionals* immediately and before the bid opening of any inaccuracies and/or inaccuracies between the various documents or between the documents and the work sites.
- Acceptance of Bid .1 The *project owner* agrees to accept neither the lowest nor any of the tenders received. If no bid is accepted, the *project owner* incurs no obligation towards any bidder and is not liable for any expense incurred in submitting and sending the bids.
  - .2 Any bid not complying with all the conditions described in this section may be deemed non-compliant and be rejected without further notice.

Any addition, deletion, or omission to complete the tender documents in their entirety and that modifies their meaning or has the effect of rendering the bid conditional may be considered a failure to comply with these guidelines.

On the other hand, the *project owner* may, at his discretion, override any defect of form or minor defect that the bid may contain.

- .3 Any bid deemed unbalanced or that does not contain all the information necessary to analyze and compare the bids may be rejected.
- .4 The *project owner* may correct a miscalculation of the bidder. If a total or subtotal price does not reflect the breakdown of this price, the said breakdown will prevail over the total or subtotal price indicated by the bidder.

8.

9. Addenda The bidder must review the addendum issued to clarify, correct or supplement these bid documents. He must acknowledge receipt by entering the number (s) and date (s) of the issue in the section provided for this purpose on the submission form. Addenda are an integral part of the contract documents.

Addenda will be sent by means of proof of receipt and receipt by bidders who have obtained the tender documents at least five (5) working days prior to the bid date and time limit for receipt of bidders. If an addendum cannot be issued within this period, or if an addendum makes it necessary to postpone the date of receipt of the bids, the said addendum or an additional addendum will mention the new deadline.

10. Equivalences For the call for tender to be the same for all, the bidder must submit his bid with the specified products to the tender documents, failing which his bid will be rejected.

If a bidder wishes to have a product recognized as equivalent, he must submit his application in writing, together with any relevant documentation, to the *project owner* and the *professional* concerned at least five (5) days before the end of the bidding period. If the product is accepted, the confirmation will be the subject of an addendum.

- 11. Related Fees The price submitted must include all costs related to the performance of all obligations provided for in the tender documents, including, but not limited to, administration and insurance costs, costs for obtaining Permits and Certificates of Authorization, transportation costs for both marine and air, equipment and machinery rental fees and accommodation fees for the duration of the work, unless offers do expressly provide that the *project owner* assumes some of these costs. All costs must be allocated among the various items in the Price Schedule.
- 12. Price Schedule In submitting the price schedule, the bidder must consider the amounts and methods of payment presented.
- 13. Questions or requests for clarification must be submitted in writing by the authorized representative of the Bidder to the Consultant Professional at least five (5) working days before the bid opening date.

 14. Tobique Inclusion 1
 .1
 Bidders must comply with the Tobique First Nation Tender Policy, a copy of which is posted on the Tobique First Nation website at : <a href="https://tobiquefirstnation.ca/download/14/policies/744/tfn-tender-policy.pdf">https://tobiquefirstnation.ca/download/14/policies/744/tfn-tender-policy.pdf</a>

Proponents will be assessed on their Tobique Inclusion measures. The Owner will assess the measures to promote Tobique contractors and Aboriginal workers.

.2 The evaluation of the Proposals may include any criteria that become evident during the evaluation process including, but is not limited to:

ltem	Criteria	Points
1)	Work Schedule	5
2)	Proponent's Qualifications and Experience	20
3)	Project Manager's Experience	15
4)	Past Performance (References)	15
5)	Tobique Inclusion	10
6)	Price	35
	TOTAL POINTS	100

**15. RFP Submission form** .1

Sub-contractors :

List any sub-contractors that would be involved in performing the Work. Include relevant experience, qualifications, roles, responsibilities for this project:

	Company name	Roles & Responsibilities	Aboriginal Ownership	Qualifications & Experiences
1				
2				
3				
4				
5				

<sup>&</sup>lt;sup>1</sup> Where you see "Mi'gmaq" replace with « Aboriginal ».

.2 Tobique employment :

In accordance with the Tobique First Nation Tender Policy, all submissions are required to identify any and all measures to include Tobique workers in the Project.

End of the section.

## CCDC2 2008 STIPULATED PRICE CONTRACT & AGREEMENT

The project is governed by the terms and conditions of the fixed-price contract published by the Canadian Construction Documents Committee (CCDC-2, 2008 version). As a result, the contractor is required to expressly read the CCDC 2–2008.

#### **BID FORM**

This form must be returned with the other requested documents to avoid the automatic rejection of your bid.

#### NEQOTKUK KCIW KNICANEWEK SPORTS AND RECREATION PARK – PHASE 2 TOBIQUE FIRST NATION, NEW BRUNSWICK

Name of the Contractor: \_

We declare to have read the tender documents entitled:

#### NEQOTKUK KCIW KNICANEWEK SPORTS AND RECREATION PARK – PHASE 2 TOBIQUE FIRST NATION, NEW BRUNSWICK

dated SEPTEMBER 3, 2021 and we agree to fulfill all the obligations arising from it.

We acknowledge receipt of the following addenda, if applicable, and affirm that all instructions contained therein have been incorporated into this submission (identify addenda received):

Addenda No	Date	Addenda No	Date
Addenda No	Date	Addenda No	Date
Addenda No	_Date	Addenda No	_Date

In the event that a contract is awarded to us, our total price for the performance of the work described in the notice to tender document (excluding applicable taxes) is the sum of:

\$).

Our submitted price will be maintained for a period of thirty (30) days from the opening of the bids.

#### The following documents are attached to this tender form:

- A letter of commitment from a company to issue a performance bond and a guarantee for pledges, materials and services of a value equal to 50% of the total price submitted (including taxes);
- A power of attorney or copy of resolution authorizing the signing of the bid by the person who has made such a signature;
- A copy of our *building contractor's* licence complying with the requirements of the Building Act and a copy of each of the *contractor's subcontractor* licences listed;
- A list of subcontractors indicating their specialty and contact information;
- A work schedule respecting the date of completion of the work provided for in this tender document;
- o Letter of commitment—Insurance duly completed and signed by an insurance company;

We acknowledge that failure to provide any of the above documents may result in the rejection of our bid.

We acknowledge that all bids must be received electronically at or before 4 PM on September 23, 2021.

POSTAL CODE
FAX
TITLE
DATE

## **ENGAGEMENT LETTER - INSURANCE**

We, the undersigned, as the authorized representative of the insurance company

we commit to having an insurance policy issued for the benefit of the company \_\_\_\_\_\_\_ in accordance with the requirements of the notice for tender document <u>NEQOTKUK KCIW KNICANEWEK SPORTS AND</u> <u>RECREATION PARK – PHASE 2 – TOBIQUE FIRST NATION, NEW BRUNSWICK</u> of which we have received a copy:

#### Insurance of goods during transport / cargo

Name of insurer	Name of the brokerage firm	Name of the representative	Date

#### Automobile Liability Insurance

Name of insurer	Name of the brokerage firm	Name of the representative	Date

#### Contractor Equipment Insurance

Name of insurer	Name of the brokerage firm	Name of the representative	Date

#### • Construction Site Insurance

ne of the brokerage firm	Name of the representative	Date

#### • Liability insurance

Name of insurer	Name of the brokerage firm	Name of the representative	Date

#### INSURANCE COMPANY

ADDRESS	
CITY	POSTAL CODE
TELEPHONE	FAX
EMAIL	
SIGNATORY	TITLE
SIGNATURE	DATE

## UNIT PRICE

The following unit prices will be used to add or delete quantities from the contract:

Item	Unit	Unit Price (Numerals)	Unit Price (Written)
Supply and place common fill	Cubic Meters		
Relocation on site and compaction of existing on site grub piles	Cubic Meters		

# **RFP Evaluation Form – KKRSP Project**

 Bidder:
 Evaluator Letter:
 Date Evaluated:

 Proposals will be evaluated on "best value" based on the evaluation criteria as stated below. Utilize a 1-10 scale when assigning points, which will then be multiplied by the weight assigned.

**1.0 Proponent Compliance** (Proponents must be fully compliant to proceed to Part 2)

Factor	Compliant	Non-Compliant
1) Provide valid insurance certificate(s) or insurance letter indicating ability to obtain required levels of insurance.		
2) Confirmation the Bidder can begin work upon award of contract.		

## 2.0 Evaluation Criteria

Evaluation Criteria	Possible Points	Points Awarded	Multiplier	Total	Notes
2.1 Price	0 - 10		8.0		
2.2 Experience and past performance on similar projects.	0 - 5		1.0		
<ul> <li>2.3 'Tobique First' Indigenous Benefits Plan. * <ul> <li>Indigenous Employment 10 points</li> <li>Indigenous Contracting 2.5 points</li> <li>Indigenous Corporate Social Responsibility 2.5 points</li> </ul> </li> </ul>	0 - 15		1.0		
TOTAL					

- \* With respect to Criteria 2.3 please consider the following guidance on calculating the points:
- 1. Employment 10 points max. The goal is to incentive the optimization of the Tobique workforce up to 50%. The calculation is a multiplication of the proposed employment percentage at a rate of 0.2 points per each percentage (20% x 0.2/% = 4 point or 50% x 0.2/% = 10 points)
- Local Business 2.5 points max. The goal is to incentive the optimization of the Tobique business to a pre-set amount. The calculation is a multiplication of the proposed purchases amounts at a rate of 0.5 points for each \$50,000.00. Once the local business content is achieved that is in this case is \$250,000 no additional points will be awarded to the bidder. If the local business objective was \$500,000 then the rate would be adjusted to 0.1 per \$50,000. The \$50,000 intervals will not be sub-divided. (\$100,000/\$50,000 x 0.5 points = 1 point or \$250,000/\$50,000 x 0.5 points = 2.5 points)
- 3. Corporate Social Responsibility 2.5 points max. The goal is to incentive the adoption of CSR program amongst the contractors/vendors that align with CSR priorities of the Tobique First Nation government. The calculation is a multiplication of prior and proposed contributions to the wellness of the community at a rate of 0.5 points for each \$50,000.00. Once the CSR monetary objective is achieved that is in this case is \$250,000 no additional points will be awarded to the bidder. If the CSR monetary objective was \$500,000 then the rate would be adjusted to 0.1 per \$50,000. The \$50,000 intervals will not be sub-divided. (\$100,000/\$50,000 x 0.5 points = 1 point or \$250,000/\$50,000 x 0.5 points = 2.5 points



# **TOBIQUE FIRST NATION**



# **DIVISION 01 – GENERAL REQUIREMENTS**

# NEQOTKUK KCIW KNICANEWEK SPORTS AND RECREATION PARK – PHASE 2

EVOQ project no: 9223-18-00

## **ISSUED FOR TENDER**

2021-09-03

#### PART 1 – GENERAL

#### 1.1 RELATED SECTIONS

- .1 Submittal procedures
- .2 Closeout submittals
- .3 Demonstration and training

#### section 01 33 00 section 01 78 00 section 01 79 00

#### 1.2 PROJECT COORDINATION

- .1 It is the expressed intention of the specifications, drawings and any other complementary documents, to require from the Contractor a complete work and complies with the requirements of all these documents.
  - .1 Ensure that all trades retained are qualified as mentioned in the general requirement document and according to their specific section describing the specialized work required.
  - .2 Inform all trades about the terms and conditions of the contract, additional information concerning the general conditions and if any, the general requirement.
- .2 As soon as you are aware of it, report to the Professionals, and confirm to him in writing, of any apparent deficiencies that would most likely affect the work of this contract. Any negligence on the part of the Contractor to report such defects in writing will render null and void any claim except in the case of defects that could reasonably have escaped his attention.
- .3 The requirements stated in the specifications and drawings are the responsibility of the Contractor who is responsible for the subcontracting some of the specialized and/or specific works, as described in the different sections of the specifications document.
- .4 Coordinate mechanical, electrical, structural work and other specialties and plan for execution.
- .5 Take all reasonable precautions to prevent the work from leading to labor disputes or other conflicts related to the project.
- .6 The Professionals will at no time serve as an arbitrator or settle any disputes arising from the fact that the Contractor is assisted in his work by a specialized contractor (subcontractor).
- .7 Coordinate the progress of the work, the schedules, the parts to be submitted, the use of the construction site, the temporary services of public utility, the installations, and temporary protection.
- .8 During the course of the work, coordinate the use of the construction site and the installations respecting all of the communication methods, as well as the submission of documents required, the reports and files, the calendars, the drawings, the recommendations and the regulation as to avoid any ambiguity or conflict.

#### 1.3 CODES AND STANDARDS

- .1 Unless otherwise specified, execute the work in accordance with the codes and regulations in force (Provincial or local code). In the case of omissions or inconsistencies in the standards, the most stringent requirements will apply.
- .2 The contractor must comply with the laws and regulations in force, including Worksafe NB.

#### 1.4 SUBMITTALS

- .1 Administrative tasks
  - .1 Submit to the Professionals for verification the required documents, within a reasonable time and in the proper sequence, so as not to delay the execution of the work, submit the documents and samples required for verification, refer to Section 01 33 00 Submittals procedures. A delay in this respect cannot constitute a sufficient reason to obtain an extension of the period of execution of the works and no request to that effect will be accepted.
  - .2 The work covered by the parts to be submitted must not be undertaken before all of the parts have been checked.
  - .3 Review the parts to be submitted before presenting them to the Professionals. This revision means that the necessary requirements have been determined and verified, or will be and that each part submitted has been reviewed and meets the requirements of the Work and the Contract Documents.
  - .4 Verify dimensions taken on site and ensure work on adjacent structures is coordinated.

#### .2 PROJECT FILE:

- .1 Documents on file
  - .1 Operation and Maintenance Manuals:

Submit to the Professionals for verification of required documents, in accordance with **Section** 01 78 00 – Closeout submittals.

- .2 Following contract award, set aside one (1) set of plans and specifications as drawings for the project file. Note carefully and precisely the discrepancies with the contract documents caused by the inventory and changes required by the Professionals. Note any changes during construction. Indicate on the drawings the location of the elements hidden in the concrete and in the ground. These drawings and specifications are for this purpose only and should not constitute a working copy.
- .3 Once the work has been completed, submit the documents to be included in the project file to the Professionals. Submit a draft before issuing the certificate of substantial completion of the work.
- .4 Photographs Submission:

.1 All photos must be taken using a digital camera and include the features mentioned previously:

- .2 Sort the photos according to the following guidelines:
  - .1 A directory by discipline (Architecture, civil, structure, mechanical, electrical)
  - .2 One directory per day

- .3 Give two clearly identified copies of the CD or DVD at the end of the work, indicating the name and the project number, the date and its contents.
- .2 Documents to be kept at the site
  - .1 Keep a copy on site for the Professionals:
    - .1 contractual drawings;
    - .2 estimate ;
    - .3 addenda;
    - .4 change orders and other changes to the contract ;
    - .5 Revised shop drawings, data sheets, and samples;
    - .6 records of field tests;
    - .7 inspection certificates;
    - .8 manufacturer's certificates;
    - .9 meetings minutes.
  - .2 Store documents and samples of the project file in the field offices, separately from the documents used for the works. Provide filing cabinets and shelves in an enclosed storage area.
  - .3 Label the documents and rank them according to the section number given in the table of contents of the project file. Write on the label of each document "PROJECT FILE" / "PROJECT FILE COPY" in capital letters printed.
  - .4 Keep the project file in a clean, dry and readable state. Do not use the project file for construction purposes.
  - .5 Record information as work progresses. Do not conceal books until the required information has been recorded.
  - .6 Contract Drawings and Shop Drawings: legibly identify each element to reflect the structures as they are, including the following:
    - .1 Measured depth of foundation elements in relation to the level of the finished first floor.
    - .2 Location, measured in the horizontal plane and vertical plane, of underground pipes and accessories in relation to permanent surface improvements.
    - .3 Location of internal piping and fixtures measured against visible and accessible construction elements.
    - .4 Location and function of each valve, connected to the valve label number tables.
    - .5 Field modifications to dimensions and details.
    - .6 Modifications made by the modification orders or addendum with reference to addendum number or modification number.
    - .7 Details Not on Original Contract Drawings.
    - .8 References to shop drawings and related modifications.
  - .7 Quote: legibly mark each element to reflect the structures as they are, including the following:
    - .1 Manufacturer, trade name and catalog number for each item actually installed, including optional items and alternatives.
    - .2 Changes made by addendum and amendment rider with reference to addendum number or amendment rider.

#### 1.5 CALENDARS TO SUBMIT

- .1 Calendars required
  - .1 Work schedule (construction)
  - .2 Submission schedule for shop drawings, data sheets, and samples
  - .3 Schedule of corrective work (construction) following receipt of the certificate of substantial completion of the work.
  - .4 training schedule.
- .2 Presentation of the work schedule
  - .1 Prepare a calendar presented as a horizontal bar chart.
  - .2 Assign a separate bar to each operation or trade.
  - .3 Represent time on a horizontal linear scale identifying the first working day of each work week.
  - .4 Indicate the main milestones, especially all those who are on the critical path.
  - .5 Identify the number of workers expected on site for each week.
  - .6 Refer to Section 1.5 of Section 01 11 10 Summary of Work for milestones.
  - .7 Submit the first calendars two (2) weeks after contract award.
  - .8 Submit an electronic copy of the timelines for the execution of work mounted with the MS Projects software.
  - .9 The Professionals will review the proposed schedules and return a revised copy of each two (2) weeks once they are received.
  - .10 Submit a final version of the schedules one (1) week after reception of the revised copy.
  - .11 During the work, the schedule must be updated and submitted with each payment request by the Contractor to reflect the actual project schedule, depending on the changes.
- .3 Presentation of the schedule of submission of shop drawings, data sheets, and samples
  - .1 Submit a list of quotations to be made according to the specifications, in the order of the quotation sections and a schedule of submission of shop drawings, data sheets and samples including columns to track the current submission dates, approval, etc. two (2) weeks following contract award.
  - .2 Issue this list, updated, at intervals of one week.
  - .3 Group bids as per Section 01 33 00 Submittal Procedures.
- .4 Presentation of the training calendar
  - 1 Prepare a schedule of training days in the form of a schedule.
  - 2 Identify the start and end time of each training by evaluating the number of hours required for each according to the content.
  - 3 Present the calendar on a letter-size page, representing one week per page, in order to have an overview of all training.
  - 4 Submit final schedule two (2) weeks prior to first training.
  - 5 Refer to Section 01 79 00 Demonstration and Training.

#### 1.6 QUALITY CONTROL

- .1 The Professionals and their authorized agents and representatives must have access to the work at all times. If parts of the work are being prepared at locations other than at the location of the work, the Professionals or their authorized agents and representatives will be required to access these works while they are in progress.
- .2 If the contract documents, the Professionals instructions or the laws or ordinances in force at the site of the work require special tests, inspections or approvals, the Contractor shall give timely notice to the Professionals requesting him to do the work inspection required. The Professionals must proceed with this inspection diligently. The Contractor will arrange for inspections to be done by other authorities and will provide timely notice to the Professionals of the date and time.
- .3 If the Contractor recovers or allows to recover any part of the work before the required tests, inspections or special approvals have been made, completed or given, the Contractor shall, upon request, discover the part in question, complete the inspections or tests satisfactorily and return the said part of the work to a state of repair at its own expense.
- .4 The Professionals may order the special examination of any part or parts of the work that he considers do not comply with the requirements of the contract documents. If it is found after examination that the said part does not comply with the requirements of the contract documents, the Contractor must correct the said part of the work and pay the costs of the examination and corrections. If the work is found to be in accordance with the requirements of the contract documents, the Contractor and reinstatement.
- .5 The Contractor shall promptly provide the Professionals with an electronic copy of all certificates and inspection reports relating to the work.

#### 1.7 USE OF THE PREMISES

- .1 The Contractor must ensure that he obtains any authorization necessary for the execution of the work; in particular the rights of use of the grounds other than that of the site of the work itself, as well as the required rights of way.
- .2 If, in the course of the works, the Contractor must use private property or must pass through it, he must make his own arrangements with the authorities concerned. The Contractor shall be solely liable for all damages that he, his employees and his subcontractors may cause through their passage on private property, and shall repair them at his expense and to the satisfaction of the relevant authorities and the Department.
- .3 The Contractor must make the necessary agreements and pay the fees required by the authorities concerned, for access to the land required for the construction of the work.
- .4 Site maintenance:
  - .1 Keep the site in good order and cleanliness and free of waste materials and accumulated debris.
  - .2 Collect waste and debris materials and dispose of them at the end of each working day.
  - .3 Clean interior areas prior to completing the work while maintaining a dust and contaminant free work environment..

## 1.8 CUTTING AND PATCHING WHEN MODIFYING THE SITE

.1 Replace any material, equipment or other accessories that may have been damaged by any cause beyond the control of the manufacturer or the trade.

#### .2 Authorization

- .1 Submit a written request in advance for cutting or modification work that will affect:
  - .1 the structural integrity of a project component;
  - .2 the integrity of elements exposed to weather or water repellents;
  - .3 the performance, maintenance or safety of an operating item;
  - .4 the aesthetic qualities of the apparent elements;

#### .3 Inspection

- .1 Check existing conditions including items that may be damaged or moved during cutting and patching.
- .2 After discovering the works, inspect the conditions likely to hinder the execution of the works.
- .3 Beginning the cutting and patching work implies acceptance of the existing conditions.
- .4 Work execution
  - .1 Carry out cutting, fitting and patching work including excavation and backfilling to complete the work.
  - .2 Remove and replace defective or non-compliant works.
  - .3 Provide openings in structural members independent of the structure for mechanical and electrical penetrations.
  - .4 Execute the work so as not to damage the other works.
  - .5 Prepare the surfaces so that they are suitable for patching and finishing.
  - .6 Cut rigid materials using a masonry saw or hollow drill. It is forbidden to use pneumatic or percussion tools.
  - .7 Restore the works with new products in accordance with the requirements of the contract documents.
  - .8 Adjust the structures tightly around pipes, sleeves, ducts, ducts and other crossings.
  - .9 When crossing a floor, ceiling or wall as a fire separation, completely enclose the voids around the opening with a flame retardant, over the full thickness of the element being passed through.
  - .10 Finish surfaces to ensure consistency with adjacent finishes. In the case of continuous surfaces, finish to the nearest intersection; in the case of an assembly, finish it completely.

### 1.9 **RESTRICTIONS AT WORK**

- .1 Continuity of electrical services:
  - .1 When work is near an existing building, install and connect the necessary wiring and pipes to ensure continuity of electrical services in buildings are not directly affected by the work.

#### 1.10 PARTS / SPARE / MAINTENANCE AND SURPLUS EQUIPMENT

- .1 Provide the quantities of replacement and/ or additional equipment required as specified in the specifications.
- .2 Provide replacement equipment of the same manufacturer and with the same quality as that of the work.
- .3 Deliver, set up and store replacement equipment at the location designated by the client.
- .6 Residual building material, except the additional equipment specified in the specifications, remains the sole property of the General Contractor. The Contractor may, at his discretion and convenience, dispose of this residual construction material.

#### 1.11 CONTRACT CLOSURE

- .1 Final cleaning:
  - .1 Prior to the inspection for the purpose of issuing the certificate of substantial completion of the work, remove surplus materials, tools, machinery and construction equipment that are no longer required for the performance of the work unless otherwise necessary.
  - .2 Dispose of waste materials and debris from the site at regular intervals. Do not burn construction materials on site.
  - .3 Sweep the work areas before the inspection work begins.
  - .4 Only use cleaning products recommended by the manufacturer of the surface to be cleaned, and the method recommended by the manufacturer of the cleaning product.
  - .5 Remove grease, dust, dirt, stains, labels, finger marks and other foreign matter from exposed, interior and exterior finished surfaces including glazing and other polished surfaces.
  - .6 Replace glass items that are broken, scratched or otherwise damaged.
  - .7 Clean reflectors and other lighting surfaces.
  - .8 Removes stains, stains, marks or dirt from decorative objects, mechanical or electrical appliances, furniture accessories, walls, ceilings and outdoor installations.
  - .9 Vacuum and dust the inside of the building and the back of the grilles, shutters, and screens.
  - .10 Wash, seal, polish, degrease or prepare floors according to the manufacturer's recommendations.
  - .11 Clear debris and surplus materials left in technical gaps and other accessible concealed spaces.
  - .12 Replace filters for heating, ventilation and air conditioning systems if the units have been running during construction and clean all (and other) ducts.
  - .13 Remove snow and ice from building access roads used to access the site.
  - .14 Sweep and wash walkways, steps and exterior surfaces.
- .2 Documents
  - .1 Collect submitted and verified documents and documents prepared by subcontractors, suppliers, and manufacturers.
  - .2 Submit the appropriate documents before making a final payment claim, refer to Section 01 78 00 Closeout submittals.
  - .3 Submit operation and maintenance manuals, as approved by the Professionals, and submit the final drawings to the project file.

- .4 Perform the formalities for the transfer of the performance bond and the labor and material payment bond to the warranty period.
- .5 Submit a final accounting report giving the adjusted total price of the contract, previous payments, and the outstanding balance.
- .3 Demonstration of the operation of systems
  - .1 Comply with all requirements of **Section 01 79 00 Demonstration and Training**. Anticipate the number of days required and coordinate with the subcontractors the dates of departure of the site according to these requirements.

### 1.12 REMAINS AND ANTIQUES

.1 If an obvious archaeological discovery is made during the work, immediately notify the Professionals and wait for written instructions before continuing work on the site.

#### PART 2 - PRODUCTS

Not applicable.

#### PART 3 - EXECUTION

Not applicable.

**END OF SECTION** 

## SHOP DRAWING - IDENTIFICATION FORM

(This form has to be completed by the contractor)

PROJECT :	OWNER (CLIENT) :
	ARCHITECT : EVOQ
PROJECT N°:	ENGINEER:
SUB-CONTRACTOR :	
Address :	
	EVOQ
Responsible :	
Phone Number:	
E-mail :	ANCIENNEMENT / FORMERLY FGMDA
SUPPLIER :	GENERAL CONTRACTOR :
Address:	Responsible :
	Phone Number :
Responsible :	E-mail:
Phone Number :	Approval: (Signature)
E-mail:	
MANUFACTURER :	SUBMITTED PRODUCT : DRAWING SEND FOR :
Address:	AS SPECIFIED VERIFICATION
Add 633.	
Responsible :	
Phone Number :	OTHER
E-mail :	
EXPERTISE (discipline) :	Compliance Varification
	R OF PAGES: Compliance Verification
SHIPPING TIME (after verification) : DESCRIPTION OF THE SHOP DRAWING :	
DESCRIPTION OF THE SHOP DRAWING .	Nature and extent of the audit (specify)
	This audit does not constitute in any way a detailed and complete
	verification of the design.
PLAN REFERENCES :	<ul> <li>Verified with remarks</li> <li>Correct and resubmit</li> </ul>
SPECIFICATION REFERENCES:	
Volume: Article :	Ű,
Section: Page :	Date:
OBSERVATIONS :	Engineer Other O
	Name N° of OIQ membership
REV. DATE ISSUED	The verification of this document is restricted to the nature and extent
	indicated. It does not relieve in any way the person or the company that
	prepared it from their obligations of any nature whatsoever

#### Part 1 General

#### 1.1 RELATED REQUIREMENTS

.1 Section 01 45 00 – Quality Control.

### 1.2 ADMINISTRATIVE

- .1 Submit to Consultant submittals listed for review. Submit promptly and in orderly sequence to not cause delay in Work. Failure to submit in ample time is not considered sufficient reason for extension of Contract Time and no claim for extension by reason of such default will be allowed.
- .2 Do not proceed with Work affected by submittal until review is complete.
- .3 Present shop drawings, product data, samples and mock-ups in SI Metric units.
- .4 Where items or information is not produced in SI Metric units converted values are acceptable.
- .5 Review submittals prior to submission to Consultant. This review represents that necessary requirements have been determined and verified, or will be, and that each submittal has been checked and coordinated with requirements of Work and Contract Documents. Submittals not stamped, signed, dated and identified as to specific project will be returned without being examined and considered rejected.
- .6 Notify Consultant, in writing at time of submission, identifying deviations from requirements of Contract Documents stating reasons for deviations.
- .7 Verify field measurements and affected adjacent Work are co-ordinated.
- .8 Contractor's responsibility for errors and omissions in submission is not relieved by Consultant's review of submittals.
- .9 Contractor's responsibility for deviations in submission from requirements of Contract Documents is not relieved by Consultant's review.
- .10 Keep one reviewed copy of each submission on site.
- .11 The Consultant shall review and approve Contractor submittals, such as shop drawings, product data, samples and other data, as required by the Consultant, but only for the limited purpose of checking for conformance with the design concept and the information expressed in the contract documents. This review shall not include review of the accuracy or completeness of details, such as quantities, dimensions, weights or gauges, fabrication processes, construction means or methods, coordination of the work with other trades or construction safety precautions, all of which are the sole responsibility of the Contractor. Review of a specific item shall not indicate that the consultant has reviewed the entire assembly of which the item is a component. The Consultant shall not be required to review partial submissions or those for which submissions of correlated items have not been received.

#### 1.3 SHOP DRAWINGS AND PRODUCT DATA

- .1 The term "shop drawings" means drawings, diagrams, illustrations, schedules, performance charts, brochures and other data which are to be provided by Contractor to illustrate details of a portion of Work.
- .2 Any drawings related to structural items shall be stamped and signed by professional engineer registered or licensed in the Province of New Brunswick.
- .3 Allow seven (7) days for Consultant's review of each submission.
- .4 Adjustments made on shop drawings by Consultant are not intended to change Contract Price. If adjustments affect value of Work, state such in writing to Consultant prior to proceeding with Work.
- .5 Make changes in shop drawings as Consultant may require, consistent with Contract Documents. When resubmitting, notify Consultant in writing of revisions other than those requested.
- .6 Accompany submissions with transmittal letter, containing:
  - .1 Date.
  - .2 Project title and number.
  - .3 Contractor's name and address.
  - .4 Identification and quantity of each shop drawing, product data and sample.
  - .5 Other pertinent data.
- .7 Submissions include:
  - .1 Date and revision dates.
  - .2 Project title and number.
  - .3 Name and address of:
    - .1 Subcontractor.
    - .2 Supplier.
    - .3 Manufacturer.
  - .4 Contractor's stamp, signed by Contractor's authorized representative certifying approval of submissions, verification of field measurements and compliance with Contract Documents.
  - .5 Details of appropriate portions of Work as required.
  - .6 The designation of the product or material.
- .8 Submit electronic copy of shop drawings for each requirement requested in specification Sections and as Consultant may reasonably request.
- .9 Submit electronic copy of product data sheets or brochures for requirements requested in specification Sections and as requested by Consultant where shop drawings will not be prepared due to standardized manufacture of product.

- .10 Submit electronic copy of test reports for requirements requested in specification Sections and as requested by Consultant.
  - .1 Report signed by authorized official of testing laboratory that material, product or system identical to material, product or system to be provided has been tested in accord with specified requirements.
  - .2 Testing must have been within 2 years of date of contract award for project.
- .11 Submit electronic copy of certificates for requirements requested in specification Sections and as requested by Consultant.
  - .1 Statements printed on manufacturer's letterhead and signed by responsible officials of manufacturer of product, system or material attesting that product, system or material meets specification requirements.
  - .2 Certificates must be dated after award of project contract complete with project name.
- .12 Submit electronic copy of manufacturer's instructions for requirements requested in specification Sections and as requested by Consultant.
  - .1 Pre-printed material describing installation of product, system or material, including special notices and Material Safety Data Sheets concerning impedances, hazards and safety precautions.
- .13 Submit electronic copies of Manufacturer's Field Reports for requirements requested in specification Sections and as requested by Consultant.
- .14 Delete information not applicable to project.
- .15 If upon review by Consultant, no errors or omissions are discovered or if only minor corrections are made, copies will be returned and fabrication and installation of Work may proceed. If shop drawings are rejected, noted copy will be returned and resubmission of corrected shop drawings, through same procedure indicated above, must be performed before fabrication and installation of Work may proceed.

#### 1.4 SAMPLES

- .1 Submit for review samples in triplicate as requested in respective specification Sections. Label samples with origin and intended use.
- .2 Deliver samples prepaid to Consultant's business address.
- .3 Notify Consultant in writing, at time of submission of deviations in samples from requirements of Contract Documents.
- .4 Where colour, pattern or texture is criterion, submit full range of samples.
- .5 Adjustments made on samples by Consultant are not intended to change Contract Price. If adjustments affect value of Work, state such in writing to Consultant prior to proceeding with Work.
- .6 Make changes in samples which Consultant may require, consistent with Contract Documents.

.7 Reviewed and accepted samples will become standard of workmanship and material against which installed Work will be verified.

#### 1.5 CERTIFICATES AND TRANSCRIPTS

- .1 Immediately after award of Contract, submit Workers' Compensation Board status.
- .2 Submit transcription of insurance immediately after award of Contract.
- Part 2 Products
- 2.1 NOT USED
  - .1 Not Used.
- Part 3 Execution
- 3.1 NOT USED
  - .1 Not Used.

### **END OF SECTION**

#### PART 1 – GENERAL

#### 1.1 OVERVIEW

.1 Provide digital and printed photographs of the construction in accordance with the requirements of this section.

#### 1.2 DIGITAL PHOTOGRAPHS ILLUSTRATING THE PROGRESS OF THE WORK

- .1 Resolution: JPEG format, average compression, 1024 x 768 dots (pixels), 72 dpi (pixels / inches), maximum of 100 KB per photo.
- .2 Identifications: All photos must have the date (YYMMDD-001) indicating when they were taken and have to be followed by a second three (3) digit number, specifying the serial number. (ex: 080820-001, 080820-002, 080820-003 ... etc.)
- .3 Points of view : To be determined during the first start project meeting
- .4 Frequency : To be determined during the first project start meeting

#### 1.3 DIGITAL PHOTOGRAPHS OF THE FINISHED WORK

- .1 Resolution : format JPEG, average compression, 1024 x 768 pixels, 72 dpi (pixels / inches), maximum of 100 KB per photo.
- .2 Identifications: All photos must have the date (YYMMDD-001) indicating when they have been taken and also have to be followed by a second three (3) digit number, specifying the serial number. (ex 080820-001, 080820-002, 080820-003 ... etc.)
- .3 Frequency : Every day
- .4 Points of view: Photos of details and overview. Photos must represent all jobs executed during the time period.

#### 1.4 SUBMITTING THE PHOTOGRAPHS

- .1 Presentation : All photos must be taken using a digital camera and have the features listed above:
- .2 Sort the photos according to the following guidelines:
  - .1 A directory by discipline (Architecture, civil, structure, mechanics, electrical)
  - .2 One directory per day
- .3 Send two copies of a CD or DVD clearly identified at the end of the work. These copies must indicate the name, the project number, the date and its contents.

# PART 2 - PRODUCTS

Not applicable.

## PART 3 - EXECUTION

Not applicable.

END OF SECTION

#### Part 1 General

### 1.1 SECTION INCLUDES

.1 Health and safety considerations required to ensure that Contractor shows due diligence towards health and safety on construction sites, and meets the requirements laid out in the Occupational Health and Safety Regulations.

#### **1.2 REFERENCES**

- .1 Canada Labour Code, Part 2, Canada Occupational Safety and Health Regulations
- .2 Health Canada/Workplace Hazardous Materials Information System (WHMIS)
  - .1 Material Safety Data Sheets (MSDS).
- .3 Province of New Brunswick
  - .1 Occupational Health and Safety Act, (O.C. 91-1035).

## **1.3 GENERAL REQUIREMENTS**

- .1 Perform site specific safety hazard assessment related to project.
- .2 Develop written site-specific Health and Safety Plan based on hazard assessment prior to beginning site Work and continue to implement, maintain, and enforce plan until final demobilization from site. Health and Safety Plan must address project specifications.
- .3 Consultant may respond in writing, where deficiencies or concerns are noted and may request re-submission with correction of deficiencies or concerns.

#### 1.4 **RESPONSIBILITY**

- .1 Be responsible for health and safety of persons on site, safety of property on site and for protection of persons adjacent to site and environment to extent that they may be affected by conduct of Work.
- .2 Comply with and enforce compliance by employees with safety requirements of Contract Documents, applicable federal, provincial, territorial and local statutes, regulations, and ordinances, and with site-specific Health and Safety Plan.

### 1.5 COMPLIANCE REQUIREMENTS

- .1 Comply with Occupational Health and Safety Act, General Regulation, N.B.
- .2 Comply with Canada Labour Code, Canada Occupational Safety and Health Regulations.
- .3 In case of a difference in any of the above regulations or policies, the most stringent one will apply.

#### 1.6 UNFORSEEN HAZARDS

.1 When unforeseen or peculiar safety-related factor, hazard, or condition occur during performance of Work, follow procedures in place for Employee's Right to Refuse Work in accordance with Acts and Regulations of Province having jurisdiction and advise Consultant verbally and in writing.

#### 1.7 HEALTH AND SAFETY CO-ORDINATOR

- .1 Employ and assign to Work, competent and authorized representative as Health and Safety Co-ordinator. Health and Safety Co-ordinator must:
  - .1 Have site-related working experience specific to activities associated with the Work.
  - .2 Have working knowledge of occupational safety and health regulations.
  - .3 Be responsible for completing Contractor's Health and Safety Training Sessions and ensuring that personnel not successfully completing required training are not permitted to enter site to perform Work.
  - .4 Be responsible for implementing, enforcing daily and monitoring site-specific Contractor's Health and Safety Plan.
  - .5 Be on site during execution of work and report directly to and be under direction of site supervisor.

#### **1.8 POSTING OF DOCUMENTS**

.1 Ensure applicable items, articles, notices and orders are posted in conspicuous location on site in accordance with Acts and Regulations of Province having jurisdiction, and in consultation with Consultant.

#### 1.9 CORRECTION OF NON-COMPLIANCE

- .1 Immediately address health and safety non-compliance issues identified by authority having jurisdiction or by Consultant.
- .2 Provide Consultant with written report of action taken to correct non-compliance of health and safety issues identified.
- .3 Consultant may stop Work if non-compliance of health and safety regulations is not corrected.

#### 1.10 BLASTING

.1 Blasting or other use of explosives is not permitted.

#### 1.11 **POWDER ACTUATED DEVICES**

.1 Use powder actuated devices only after receipt of written permission from Consultant.

### 1.12 WORK STOPPAGE

.1 Give precedence to safety and health of public and site personnel and protection of environment over cost and schedule considerations for Work.

Part 2 Products

### 2.1 NOT USED

.1 Not used.

# Part 3 Execution

- 3.1 NOT USED
  - .1 Not used.

# Part 1 General

# 1.1 **DEFINITIONS**

- .1 Environmental Pollution and Damage: presence of chemical, physical, biological elements or agents which adversely affect human health and welfare; unfavourably alter ecological balances of importance to human life; affect other species of importance to humankind; or degrade environment aesthetically, culturally and/or historically.
- .2 Environmental Protection: prevention/control of pollution and habitat or environment disruption during construction. Control of environmental pollution and damage requires consideration of land, water, and air; biological and cultural resources; and includes management of visual aesthetics; noise; solid, chemical, gaseous, and liquid waste; radiant energy and radioactive material as well as other pollutants.

# 1.2 SUBMITTALS

- .1 Prior to commencing construction activities or delivery of materials to site, submit Environmental Protection Plan for review and approval by Consultant. Environmental Protection Plan is to present comprehensive overview of known or potential environmental issues which must be addressed during construction.
- .2 Address topics at level of detail commensurate with environmental issue and required construction task(s).
- .3 Environmental protection plan to include:
  - .1 Erosion and sediment control plan which identifies type and location of erosion and sediment controls to be provided including monitoring and reporting requirements to assure that control measures are in compliance with erosion and sediment control plan, Federal, Provincial, and Municipal laws and regulations.
  - .2 Drawings showing locations of proposed temporary excavations or embankments for haul roads, stream crossings, material storage areas, structures, sanitary facilities, and stockpiles of excess or spoil materials including methods to control runoff and to contain materials on site.
  - .3 Traffic control plans including measures to reduce erosion of temporary roadbeds by construction traffic, especially during wet weather. Plans include measures to minimize amount of mud transported onto paved public roads by vehicles or runoff.
  - .4 Work area plan showing proposed activity in each portion of area and identifying areas of limited use or non-use. Plan to include measures for marking limits of use areas including methods for protection of features to be preserved within authorized work areas.
  - .5 Spill Control Plan: including procedures, instructions, and reports to be used in event of unforeseen spill of regulated substance.
  - .6 Non-Hazardous solid waste disposal plan identifying methods and locations for solid waste disposal including clearing debris.

- .7 Air pollution control plan detailing provisions to assure that dust, debris, materials, and trash, do not become air borne and travel off project site.
- .8 Contaminant prevention plan that: identifies potentially hazardous substances to be used on job site; identifies intended actions to prevent introduction of such materials into air, water, or ground; and details provisions for compliance with Federal, Provincial, and Municipal laws and regulations for storage and handling of these materials.
- .9 Waste water management plan that identifies methods and procedures for management and/or discharge of waste waters which are directly derived from construction activities, such as concrete curing water, cleanup water, dewatering of ground water, disinfection water, hydrostatic test water, and water used in flushing of lines.

# 1.3 FIRES

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

# 1.4 DISPOSAL OF WASTES

- .1 Do not bury rubbish and waste materials on site.
- .2 Do not dispose of waste or volatile materials, such as mineral spirits, oil or paint thinner into waterways, storm or sanitary sewers.

# 1.5 DRAINAGE

- .1 Provide an erosion and sediment control plan complying with regulatory requirements that identifies type and location of erosion and sediment controls to be provided. Plan: include monitoring and reporting requirements to assure that control measures are in compliance with erosion and sediment control plan, Federal, Provincial, and Municipal laws and regulations.
- .2 Prevent sediment from washing down swales and ditches out of contract limit.
- .3 Provide temporary drainage and pumping as necessary to keep excavations and site free from water.
- .4 Do not pump water containing suspended materials into waterways, sewer or drainage systems.
- .5 Control disposal or runoff of water containing suspended materials or other harmful substances in accordance with local authority requirements.

# 1.6 SITE CLEARING, PLANT and SITE FEATURE PROTECTION

- .1 Protect trees and plants on site and adjacent properties designated to remain.
- .2 Protect roots of designated trees to drip-line during excavation and site grading to prevent disturbance or damage. Avoid unnecessary traffic, dumping and storage of materials over root zones.
- .3 Do not strip topsoil and vegetation within drip-line of vegetation to remain.
- .4 Restrict tree removal to areas indicated or designated by Consultant.
- .5 Conduct operations at all time in such a manner to preserve the natural features and vegetation adjacent to the designated work area. Cut and fill slopes shall be blended with adjoining topography. Material from cut and fill slopes or

excavations will not be permitted to slough or roll into surrounding tree cover or bury any plant material designated to remain.

- .6 When, in the opinion of the Consultant, negligence on the part of the Contractor results in damage or destruction of vegetation or other environmental or aesthetic features beyond the designated work area, the Contractor shall be responsible, at his expense, for restoration or rehabilitation to the satisfaction of the Consultant.
- .7 Dispose of brush and vegetative waste off site in an approved waste disposal facility.

#### 1.7 **POLLUTION CONTROL**

- .1 Maintain temporary erosion and pollution control features installed under this contract.
- .2 Control emissions from equipment and plant to local authorities' emission requirements.
- .3 Cover or wet down dry materials and rubbish to prevent blowing dust and debris. Provide dust control for temporary roads.
- Locate any fuel storage facility minimum 100m from any water body, to the .4 approval of the Consultant.
- .5 Fuel storage must have approved double walled safety features or be constructed with an impermeable dyke to contain spillage.
- .6 Fuelling or maintenance of vehicles will not be permitted within 100m of any water body. Maintenance will be permitted only within approved, designated areas.
- .7 Report immediately any spills to the Consultant.
- .8 Respond immediately to any spill to minimize environmental damage and pay for clean-up or rehabilitation resulting from spills to the satisfaction of the authority having jurisdiction.
- .9 Prevent contamination of surrounding environment by hazardous substances. Store and handle in ways to prevent entry into waterways, or contamination of soil or air.
- .10 Maintain emergency response equipment on site to deal with potential accidental event.

#### 1.8 **EROSION**

- .1 Cuts and fills carried out by the Contractor are to be properly stabilized using mulching techniques to prevent erosion. Short term erosion control techniques will be used until permanent surface stabilization is established.
- .2 Utilize good construction techniques in excavation and grading to minimize the potential for short term erosion.
- .3 Install, inspect and maintain in proper working order temporary erosion, siltation and pollution control features as approved by the Consultant. Remove these devises in the proper manner upon completion of the related work, and with the approval of the Consultant.

.4 Halt work on slopes or excavations during heavy rainfall to minimize run-off and erosion.

# 1.9 NOTIFICATION

- .1 The Consultant will notify Contractor in writing of observed noncompliance with Federal, Provincial or Municipal environmental laws or regulations, permits, and other elements of Contractor's Environmental Protection plan. Contractor: after receipt of such notice, inform Consultant of proposed corrective action and take such action for approval by the Consultant.
- .2 The Consultant will issue stop order of work until satisfactory corrective action has been taken.
- .3 No time extensions granted or equitable adjustments allowed to Contractor for such suspensions.

# Part 1 General

# 1.1 **REFERENCES**

- .1 Canadian Construction Documents Committee (CCDC)
  - .1 CCDC 2 2008, Stipulated Price Contract.

# 1.2 INSPECTION

.1 Refer to CCDC 2, GC 2.3.

# 1.3 INDEPENDENT INSPECTION AGENCIES

- .1 Independent Inspection/Testing Agencies could be engaged by Consultant and/or Owner for purpose of inspecting and/or testing portions of Work. Cost of such services will be borne by Consultant and/or Owner.
- .2 Employment of inspection/testing agencies does not relax responsibility to perform Work in accordance with Contract Documents.
- .3 If defects are revealed during inspection and/or testing, appointed agency will request additional inspection and/or testing to ascertain full degree of defect. Correct defect and irregularities as advised by Consultant at no cost to Owner. Pay costs for retesting and reinspection.

## 1.4 ACCESS TO WORK

- .1 Allow inspection/testing agencies access to Work, off site manufacturing and fabrication plants.
- .2 Co-operate to provide reasonable facilities for such access.

# **1.5 DEFECTIVE WORK**

- .1 Refer to CCDC 2, GC 2.4.
- Part 2 Products
- 2.1 NOT USED
  - .1 Not Used.

## Part 3 Execution

- 3.1 NOT USED
  - .1 Not Used.

# 1 General

# 1.1 RELATED WORK

- .1 Section 31 23 33.01 Excavating, Trenching and Backfilling.
- .2 Section 31 24 13 Roadway Embankments.
- .3 Section 32 11 16.01 Granular Sub-Base.
- .4 Section 32 11 23 Aggregate Base Courses.
- .5 Section 32 12 13 Asphalt Tack Coat.
- .6 Section 32 12 16.01 Asphalt Paving Short Form.
- .7 Section 33 05 13 Manhole and Catch Basin Structures.
- .8 Section 33 11 16 Site Water Utility Distribution Piping.
- .9 Section 33 31 13 Public Sanitary Utility Sewage Piping

## 1.2 **REFERENCES**

.1 NBDTI - "Work Area Traffic Control Manual".

## **1.3 PROTECTION OF PUBLIC TRAFFIC**

- .1 Comply with requirements of Acts, Regulations and By-Laws in force for regulation of traffic or use of roadways upon or over which it is necessary to carry out work or haul materials or equipment.
- .2 When working on travelled way:
  - .1 Place equipment in position to present minimum of interference and hazard to travelling public.
  - .2 Keep equipment units as close together as working conditions permit and preferably on same side of travelled way.
  - .3 Do not leave equipment on travelled way overnight.
- .3 Do not close any lanes of road without approval of Consultant. Before re-routing traffic erect suitable signs and devices in accordance with instructions contained in NBDTI "Work Area Traffic Control Manual". Provide sufficient gravel to ensure a smooth riding surface during work.
- .4 Keep travelled way graded, free of pot holes and of sufficient width for required number of lanes of traffic.
  - .1 Provide minimum 7 m wide temporary roadway for traffic in two-way sections

through work and on detours.

- .2 Provide minimum 5 m wide temporary roadway for traffic in one-way sections through work and on detours.
- .5 As required, provide gravel detours or temporary roads to facilitate passage of traffic around restricted area. Provide and maintain signs, lights and roadway.
- .6 Provide and maintain road access and egress to property fronting along work under Contract and in other areas as indicated, unless other means of road access exist that meet approval of Consultant.

# 1.4 INFORMATIONAL AND WARNING DEVICES

- .1 Provide and maintain signs, flashing warning lights and other devices required to indicate construction activities or other temporary and unusual conditions resulting from project work which requires road user response.
- .2 Supply and erect signs, delineators, barricades and miscellaneous warning devices as specified in NBDTI Work Area Traffic Control Manual".
- .3 Place signs and other devices in locations recommended in NBDTI manual.
- .4 Meet with Consultant prior to commencement of work to prepare list of signs and other devices required for project. If situation on site changes, revise list to approval of Consultant.
- .5 Continually maintain traffic control devices in use by:
  - .1 Checking signs daily for legibility, damage, suitability and location. Clean, repair or replace to ensure clarity and reflectance.
  - .2 Removing or covering signs which do not apply to conditions existing from day to day.

# 1.5 CONTROL OF PUBLIC TRAFFIC

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

available.

.6 In situations where complete protection for workmen, working equipment and public traffic is not provided by other traffic control devices.

#### 1.1 SECTION INCLUDES

- .1 Product quality, availability, storage, handling, protection, and transportation.
- .2 Manufacturer's instructions.
- .3 Quality of Work, coordination and fastenings.
- .4 Existing facilities.

#### 1.2 REFERENCE STANDARDS

- .1 Within text of each specifications section, references may be made in the specifications sections regarding reference standards.
- .2 Conform to these reference standards, in whole or in part as specifically requested in specifications.
- .3 If there is question as to whether any product or system is in conformance with applicable standards, Professionals reserve rights to have such products or systems tested to prove or disprove conformance.
- .4 Expenses for testing will be the responsibility of Professionals in event of conformance with Contract Documents or by Contractor in event of non-conformance.
- .5 Conform to latest date of issue of referenced standards in effect on date of submission of Tenders, except where specific date or issue is noted.

### 1.3 QUALITY

- .1 Products, materials, equipment, devices, parts and articles (referred to as products throughout specifications) incorporated in Work shall be new, not damaged or defective, and of best quality (compatible with specifications) for purpose intended. If requested, furnish evidence as to type, source and quality of products provided.
- .2 Procurement policy is to acquire, in a cost effective manner, items containing the highest percentage of recycled and recovered materials practical consistent with maintaining satisfactory levels of competition. Make reasonable efforts to use recycled and recovered materials/equipment and in otherwise utilizing recycled and recovered materials in the execution of Work.
- .3 Defective products, whenever identified prior to completion of Work, will be rejected, regardless of previous inspections. Inspection does not relieve the Contractor of responsibility, but is precaution against oversight or error. The Contractor is to remove and replace defective products at own expense and be responsible for delays and expenses caused by rejection.
- .4 Should disputes arise as to quality or fitness of products, the decision rests strictly with Professionals based upon requirements of Contract Documents.
- .5 Unless otherwise indicated in specifications, maintain uniformity of manufacture for any particular or like item throughout building.
- .6 Permanent labels, trademarks and nameplates on products are not acceptable in prominent locations, except where required for operating instructions, or when located in mechanical or electrical rooms.

#### 1.4 PRODUCT AVAILABILITY

.1 Immediately upon signing the contract, review product delivery requirements and anticipate any foreseeable supply

delays for items. If delays in supply of products are foreseeable, notify the Professionals of such, in order that substitutions or other remedial action may be authorized in ample time to prevent delay in performance work.

### 1.5 STORAGE, HANDLING AND PROTECTION

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

#### 1.6 TRANSPORTATION

.1 Pay costs of transportation of products required for execution of Work. The Contractor is to assume cost of proper air or sea packaging.

#### 1.7 MANUFACTURER'S INSTRUCTIONS

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

### 1.8 QUALITY OF WORK

- .1 Ensure Quality of Work is of the highest standard, executed by workers experienced and skilled in respective duties for which they are employed. Immediately notify Professionals if required Work is such as to make it impractical to produce required results.
- .2 Do not employ anyone unqualified in their required duties. Professionals reserve right to dismiss from the site, workers deemed incompetent or careless.
- .3 Decisions as to standard or fitness of Quality of Work in cases of dispute rest solely with Professionals, whose decision is final.

#### 1.9 COORDINATION

- .1 Ensure cooperation of workers in laying out Work. Maintain efficient and continuous supervision.
- .2 The Contractor is responsible for coordination and placement of openings, sleeves and accessories.

#### 1.10 CONCEALMENT

- .1 In finished areas, conceal pipes, ducts and wiring in floors, walls and ceilings, except where indicated otherwise.
- .2 Before installation, inform Professionals if there is interference. Install as directed by Professionals.

#### 1.11 REMEDIAL WORK

- .1 Perform remedial work required to repair or replace parts or portions of Work identified as defective or unacceptable. Coordinate supplementary Work as required.
- .2 Perform remedial work by specialists familiar with materials affected. Perform in a manner that doesn't damage or poses potential risk to other portions of Work.

#### 1.12 LOCATION OF FIXTURES

- .1 Consider location of fixtures, outlets, and mechanical and electrical items indicated as approximate.
- .2 Inform Professionals of conflicting installation. Install as directed.

#### 1.13 FASTENINGS - GENERAL

- .1 Provide metal fastenings and accessories in same texture, colour and finishes as adjacent materials, unless indicated otherwise.
- .2 Prevent electrolytic action between dissimilar metals and materials.
- .3 Use non-corrosive hot dip galvanized steel fasteners and anchors for securing exterior work, unless stainless steel or other material is specifically requested in affected specification Section.
- .4 Space anchors within individual load limit or shear capacity and ensure they provide positive permanent anchoring. Wooden plugs or any other organic material are not acceptable.
- .5 Keep exposed fastenings to a minimum, space evenly and install neatly.
- .6 Fastenings which cause spalling or cracking of material to which anchorage is made are not acceptable.

#### 1.14 FASTENINGS - EQUIPMENT

- .1 Use fastenings of standard commercial sizes and patterns with material and finish suitable for service.
- .2 Use heavy hexagon heads, semi-finished unless otherwise specified. Use No. 304 stainless steel for exterior areas, unless otherwise specified.
- .3 Bolts may not protrude more than one diameter beyond nuts.
- .4 Use plain type washers on equipment, sheet metal and soft gasket lock type washers where vibrations occur. Use resilient washers with stainless steel.

# 1.15 PROTECTION OF WORK IN PROGRESS

.1 Prevent overloading of any part of building. Do not cut, drill or sleeve any load bearing structural member, unless specifically indicated without written approval of Professionals.

#### 1.16 EXISTING UTILITIES

- .1 When breaking into or connecting to existing services or utilities, execute Work at times directed by local governing authorities, with minimum of disturbance to Work and pedestrian and vehicular traffic.
- .2 Protect, relocate or maintain existing active services. When services are encountered, cap off in manner approved by authority having jurisdiction. Stake and record location of capped service.

#### PART 2 – PRODUCTS

Not applicable.

### PART 3 – EXECUTION

Not applicable.

# 1.1 CLEANING

- .1 <u>General</u>:
  - .1 Keep the site clean and free of the accumulation of construction waste other than those collected by Owner or other contractors.
  - .2 Use skilled labour for cleaning purposes, as per manufacturers' recommendations.
  - .3 Obtain permits from authorities having jurisdiction for disposal of waste and debris.
  - .4 Conduct cleaning and disposal operations to comply with local ordinances and anti-pollution laws.
  - .5 The equipment or rubbish too heavy or too big to be placed in the container, must be dusted and disinfected or packaged before evacuated from the site.
  - .6 Store volatile waste in covered metal containers. Remove from premises at end of each working day.
  - .7 Provide adequate ventilation during use of volatile or noxious substances. Use of permanent building ventilation systems is not permitted for this purpose.
- .2 Materials:
  - .1 Use only cleaning materials recommended by manufacturer of surface to be cleaned, and as recommended by cleaning product manufacturer.
- .3 <u>Cleaning during construction</u>:
  - .1 Remove waste materials from site at daily regularly scheduled times or dispose of as directed by Owner.
  - .2 Schedule cleaning operations so that resulting dust, debris and other contaminants will not fall on wet, newly painted surfaces nor contaminate building systems.
  - .3 It is necessary to use waste containers, the location of which shall be determined in place by the Owner.
  - .4 Keep passages and access routes completely clear of materials and equipment at all times.
  - .5 Clean daily all access routes (roads and passages) used and soiled by the Contractor's vehicles and equipments.
  - .6 Coordinate with the local municipal authorities removal of snow from access roads to place of work.
  - .7 If need be, coordinate removal of snow before installation of temporary ventilation equipment.
  - .8 Remove from crawl spaces and other concealed spaces debris or other surplus material.
  - .9 Keep corridors and access routes clear of any materials or equipments at all times.
  - .10 Clean interior areas prior to start of finishing work, and maintain areas free of dust and other contaminants during finishing operations.
- .4 <u>Final cleaning</u>:
  - .1 When construction work is almost over, remove scaffolding, temporary protection and surplus materials, tools and equipment not required for the rest of the work, and make good defects noted at this stage. However, before removing scaffolding, notify the Professionals so that they coordinate their inspections.
  - .2 Do the final cleaning to prepare the site for Provisional Acceptance (Substantial Performance) to allow occupation of premises.
  - .3 Prior to final review remove surplus products, tools, construction machinery and equipment.
  - .4 Maintain cleaning until Owner has taken possession of building or portions thereof.

- .5 Remove waste materials from site at predetermined intervals or eliminate them according to the instructions of the Professionals.
- .6 Remove soil, grease, dust, dirt, stains, paint spots, labels, fingerprints, and other foreign materials, from interior and exterior finished surfaces including glass and other polished surfaces.
- .7 Do not remove approval labels.
- .8 Replace broken, cracked, scratched or otherwise damaged glass elements.
- .9 Clean light fixtures, reflectors, lenses, and other fixture surfaces.
- .10 Wash or clean and polish glass, stainless steel and other smooth surfaces. Use "CIP 100" and acetone to clean stainless steel surfaces.
- .11 Clean manufactured articles in accordance with manufacturer's directions.
- .12 Clean hardware, mechanical fixtures, cover plates, and equipment, including polishing of their finish metal, porcelain, vitreous and glass components.
- .13 Vacuum clean, wash, seal, wax, degrease or prepare floor surfaces as recommended by manufacturer.
- .14 Examine finishes, accessories and equipment to ensure that they satisfy the prescribed requirements as to function and quality of execution.
- .15 Clean equipment and fixtures to meet sanitary conditions; clean or replace filters of mechanical equipment.

# PART 2 - PRODUCTS

Not applicable.

# PART 3 - EXECUTION

Not applicable.

### 1.1 SECTION INCLUDES

- .1 As-built, samples, and specifications.
- .2 Equipment and systems.
- .3 Product data, materials and finishes, and related information.
- .4 Operation and maintenance data.
- .5 Spare parts, special tools and maintenance materials.
- .6 Warranties and bonds.

### 1.2 SUBMITTALS

- .1 Prepare instructions and data using personnel experienced in maintenance and operation of described products.
- .2 Three (3) weeks prior to Substantial Performance of the Work, submit to the Professionals, one (1) complete digital copy of operating and maintenance manuals in English.
- .3 Copy will be returned after inspection, with the Professionals comments.
- .4 Revise content of documents as required prior to final submittal.
- .5 At Substantial Performance of the Work, submit to the Professionals, four (4) revised final printed copies and four (4) digital copies on CD or DVD of operating and maintenance manuals in English.
- .6 Ensure spare parts, maintenance materials and special tools provided are new, undamaged or defective, and of same quality and manufacture as products provided in Work.
- .7 If requested, furnish evidence as to type, source and quality of products provided.
- .8 Defective products will be rejected, regardless of previous inspections. Replace products at own expense.
- .9 Pay costs of transportation.

### 1.3 FORMAT

- .1 Organize data in the form of an instructional manual.
- .2 Binders: vinyl, hard covered, 3 'D' ring, loose leaf 219 x 279 mm with spine and face pockets.
- .3 When multiple binders are used, correlate data into related consistent groupings. Identify contents of each binder on spine.
- .4 Cover: Identify each binder with type or printed title 'Project Record Documents'; list title of project and identify subject matter of contents.
- .5 Arrange content by systems, process flow, under Section numbers and sequence of Table of Contents.
- .6 Provide tabbed fly leaf for each separate product and system, with typed description of product and major component parts of equipment.
- .7 Text: Manufacturer's printed data, or typewritten data.
- .8 Drawings: provide with reinforced punched binder tab. Bind in with text; fold larger drawings to size of text pages.
- .9 Provide as build drawings for all divisions with annotations.

.10 Provide video-recorded formation on DVD.

### 1.4 CONTENTS - EACH VOLUME

- .1 Table of Contents: provide title of project;
  - .1 date of submission; names,
  - .2 addresses, and telephone numbers of Owner and Contractor with name of responsible parties;
  - .3 schedule of products and systems, indexed to content of volume.
- .2 For each product or system:
  - .1 list names, addresses and telephone numbers of subcontractors and suppliers, including local source of supplies and replacement parts.
- .3 Product Data: mark each sheet to clearly identify specific products and component parts, and data applicable to installation; delete inapplicable information.
- .4 Drawings: supplement product data to illustrate relations of component parts of equipment and systems, to show control and flow diagrams.
- .5 Typewritten Text: as required to supplement product data. Provide logical sequence of instructions for each procedure, incorporating manufacturer's instructions.
- .6 Training: Refer to Section 01 79 00 Demonstration and Training.

### 1.5 AS-BUILTS AND SAMPLES

- .1 In addition to requirements in General Conditions, maintain at the site for Professionals one record copy of:
  - .1 Contract Drawings.
  - .2 Specifications.
  - .3 Addenda.
  - .4 Change Orders and other modifications to the Contract.
  - .5 Reviewed shop drawings, product data, and samples.
  - .6 Field test records.
  - .7 Inspection certificates.
  - .8 Manufacturer's certificates.
- .2 Store record documents and samples in field office apart from documents used for construction. Provide files, racks, and secure storage.
- .3 Label record documents and file in accordance with Section number listings in List of Contents of this Project Manual. Label each document "PROJECT RECORD" in neat, large, printed letters.
- .4 Maintain record documents in clean, dry and legible condition. Do not use record documents for construction purposes.
- .5 Keep record documents and samples available for inspection by Departmental Representative.

### 1.6 RECORDING ACTUAL SITE CONDITIONS

- .1 Record information on set of drawings, and in copy of Project Manual.
- .2 Provide felt tip marking pens, maintaining separate colours for each major system, for recording information.

- .3 Record information concurrently with construction progress. Do not conceal Work until required information is recorded.
- .4 Contract Drawings and shop drawings: legibly mark each item to record actual construction, including:
  - .1 Measured depths of elements of foundation in relation to finish first floor datum.
  - .2 Measured horizontal and vertical locations of underground utilities and appurtenances, referenced to permanent surface improvements.
  - .3 Measured locations of internal utilities and appurtenances, referenced to visible and accessible features of construction.
  - .4 Field changes of dimension and detail.
  - .5 Changes made by change orders.
  - .6 Details not on original Contract Drawings.
  - .7 References to related shop drawings and modifications.
- .5 Specifications: legibly mark each item to record actual construction, including:
  - .1 Manufacturer, trade name, and catalogue number of each product actually installed, particularly optional items and substitute items.
  - .2 Changes made by Addenda and change orders.
- .6 Other Documents: maintain manufacturer's certifications, inspection certifications, field test records, required by individual specifications sections.

## 1.7 EQUIPMENT AND SYSTEMS

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

- .14 Include test and balancing reports.
- .15 Additional requirements: As specified in individual specification sections.
- .16 On the date of Substantial Performance of the Work, the project's heating oil tanks must be full.

#### 1.8 MATERIALS AND FINISHES

- .1 Building Products, Applied Materials, and Finishes: include product data, with catalogue number, size, composition, and colour and texture designations. Provide information for re-ordering custom manufactured products.
- .2 Instructions for cleaning agents and methods, precautions against detrimental agents and methods, and recommended schedule for cleaning and maintenance.
- .3 Moisture-protection and Weather-exposed Products: include manufacturer's recommendations for cleaning agents and methods, precautions against detrimental agents and methods, and recommended schedule for cleaning and maintenance.
- .4 Additional Requirements: as specified in individual specifications sections.

#### 1.9 SPARE PARTS

- .1 Provide spare parts, in quantities specified in individual specification sections.
- .2 Provide items of same manufacture and quality as items in Work.
- .3 Deliver to location as directed; place and store.
- .4 Receive and catalogue all items. Submit inventory listing to Professionals. Include approved listings in Maintenance Manual.
- .5 Obtain receipt for delivered products and submit prior to final payment.

#### 1.10 MAINTENANCE MATERIALS

- .1 Provide maintenance and extra materials, in quantities specified in individual specification sections.
- .2 Provide items of same manufacture and quality as items in Work.
- .3 Deliver to location as directed; place and store.
- .4 Receive and catalogue all items. Submit inventory listing to Professionals. Include approved listings in Maintenance Manual.
- .5 Obtain receipt for delivered products and submit prior to final payment.

#### 1.11 SPECIAL TOOLS

- .1 Provide special tools, in quantities specified in individual specification section.
- .2 Provide items with tags identifying their associated function and equipment.
- .3 Deliver to location as directed; place and store.
- .4 Receive and catalogue all items. Submit inventory listing to Professionals. Include approved listings in Maintenance Manual.

### 1.12 STORAGE, HANDLING AND PROTECTION

- .1 Store spare parts, maintenance materials, and special tools in manner to prevent damage or deterioration.
- .2 Store in original and undamaged condition with manufacturer's seal and labels intact.
- .3 Store components subject to damage from weather in weatherproof enclosures.
- .4 Store paints and freezable materials in a heated and ventilated room.
- .5 Remove and replace damaged products at own expense and to satisfaction of Professionals.

### 1.13 WARRANTIES AND BONDS

- .1 Separate each warranty or bond with index tab sheets keyed to Table of Contents listing.
- .2 List subcontractor, supplier, and manufacturer, with name, address, and telephone number of responsible principal.
- .3 Obtain warranties and bonds, executed in duplicate by subcontractors, suppliers, and manufacturers, within ten days after completion of the applicable item of work.
- .4 Except for items put into use with Owner's permission, leave date of beginning of time of warranty until the Date of Substantial Performance is determined.
- .5 Verify that documents are in proper form, contain full information, and are notarized.
- .6 Co-execute submittals when required.
- .7 Retain warranties and bonds until time specified for submittal.

### PART 2 – PRODUCTS

Not applicable.

### PART 3 – EXECUTION

Not applicable.

#### 1.1 SECTION INCLUDES

.1 Procedures for demonstration and instruction of equipment and systems to Owner.

#### 1.2 DESCRIPTION

- .1 Demonstrate schedule operation and maintenance of equipment and systems to Owner personnel at the latest two (2) days before substantial completion and once all tests have been completed.
- .2 Owner will provide list of personnel to receive instructions, and will coordinate their attendance at agreed-upon times.

#### 1.3 QUALITY CONTROL

.1 When specified in individual Sections, require manufacturer to provide authorized representative to demonstrate operation of equipment and systems, instruct Department's personnel and provide written report that demonstration and instructions have been completed.

#### 1.4 SUBMITTALS

- .1 Submit schedule of time and date for demonstration of each item of equipment and each system two week prior to designated dates, for Owner approval.
- .2 Along with the schedule, submit short syllabus explaining the content of each demonstration, for Owner approval.
- .3 Submit reports within one week after completion of demonstration, that demonstration and instructions have been satisfactorily completed.
- .4 Give time and date of each demonstration, with attendance list signed by trainer and all attendees.

#### 1.5 CONDITIONS FOR DEMONSTRATIONS

- .1 Equipment has been inspected and put into operation.
- .2 Testing, adjusting, and balancing has been performed and equipment and systems are fully operational.
- .3 Provide copies of completed operation and maintenance manuals for use in demonstrations and instructions.

#### 1.6 **PREPARATION**

- .1 Verify that conditions for demonstration and instructions comply with requirements.
- .2 Verify that designated personnel are present.

#### 1.7 DEMONSTRATION AND INSTRUCTIONS

- .1 Demonstrate start-up, operation, control, adjustment, trouble-shooting, servicing, and maintenance of each item of equipment at the equipment location.
- .2 Instruct personnel in all phases of operation and maintenance using operation and maintenance manuals as the basis

of instruction.

- .3 Review contents of manual in detail to explain all aspects of operation and maintenance.
- .4 Prepare and insert additional data in operations and maintenance manuals when the need for additional data becomes apparent during instructions.
- .5 All formation to be video-recorded, transferred in DVD format and integrated in exploitation manuals. Videos shall comply to minimum quality standards (visually stable, clear sound, etc.).

#### 1.8 TIME ALLOCATED FOR INSTRUCTIONS

.1 Ensure sufficient amount of time required for instruction of each mechanical and electrical system or other equipement needing demonstration to operate.

#### PART 2 - PRODUCTS

Not applicable.

### PART 3 - EXECUTION

Not applicable.

### 1.1 DESCRIPTION

.1 The Indigenous Benefits Plan enhance economic opportunities for Indigenous Peoples and businesses through increases possibilities of competing successfully for contracts or of participating in employment, training or subcontracting opportunities.

### 1.2 REQUIREMENTS

- .2 The Bidder must certify that any Indigenous sub-contractor is owned and operated by an individual or individuals whose name or names appear on the band list of a First Nation.
- .3 The Contractor must ensure the labour force working on-site is represented by a minimum 33% local Indigenous workers. The contractor must provide as a pre-award documentation requirement, a record of engagement (who and when they met with local Indigenous labour forces) to attain Indigenous workers. The Contractor will also be required to maintain a record of the umber and role of local Indigenous workers on the project that the Owner's Representative will receive with requests for progress payments.

PART 2 – PRODUCTS

Not applicable.

Part 3 - EXECUTION

Not applicable.