INVITATION TO TENDER

RETURN BIDS TO:

Bid Receiving / Agriculture and Agri-Food Canada

Agriculture and Agri-Food Canada Eastern Service Centre Tender Receiving Unit 2001 Robert-Bourassa Blvd., Suite 671-TEN Montréal, Quebec H3A 3N2

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Agriculture and Agri-Food Canada

We hereby offer to sell to Her Majesty the Queen in right of Canada, in accordance with the terms and conditions set out herein, referred to herein or attached hereto, the construction listed herein and on any attached sheets at the price(s) set out therefor.

Comments			

ISSUING OFFICE

Agriculture and Agri-Food Canada Eastern Service Centre Tender Receiving Unit 2001 Robert-Bourassa Blvd., Suite 671-TEN Montréal, Quebec H3A 3N2

Title					
FRDC Building 1	Growth Room	n Hun	nidific	ation S	Systems
Solicitation No.				Date	
01в46-2020-049				2020-09	9-07
Client Reference No.			,		
File No.					
01B46-2020-049					
Solicitation Closes:					
Day of Week	Month		Day	Year	Time
Tuesday	Tuesday September		29	2020	02:00
Time of Day			Time Zoi	ne	
◯ AM ⊙ PM			Local Standard Time		
F.O.B Plant Desti	nation O	ther			
Address Enquiries to:					
Jean-François L	emay				
Title:					
Procurement Off	icer				
Email:					
jean-francois.lemay@canada.ca					
Telephone Number Ext. Fax Number					
514 315-6196 514 283-1918					
Destination Fredericton Research and Development Centre 850 Lincoln Road PO Box 20280 Fredericton, NB. E3B 4Z7					

Instructions: See Herein

Delivery Required	Delivery Offered
November 30, 2020	
Vendor / Firm Name and Address	
	Γ
Telephone Number Ext.	Fax Number



Name and title of person authorized to sign on behalf of Vendor / Firm (type or print)						
Signature	Date					

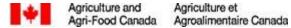
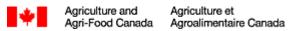


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Appendix "A"

GENERAL INSTRUCTIONS TO BIDDERS

GENERAL INSTRUCTIONS TO BIDDERS

GI01	Completion of Bid
GI02	Identity or Legal Capacity of the Bidder
GI03	Applicable Taxes
GI04	Capital Development and Redevelopment Charges
GI05	Registry and Pre-qualification of Floating Plant
GI06	Listing of Subcontractors and Suppliers
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GI10	Rejection of Bid
GI11	Bid Costs
GI12	Compliance with Applicable Laws
GI13	Approval of Alternative Materials
GI14	Conflict of Interest – Unfair Advantage
GI15	Integrity Provisions – Bid
GI16	Code of Conduct for Procurement Rid

GI01 COMPLETION OF BID

- 1) The bid shall be:
 - (a) submitted on the BID AND ACCEPTANCE FORM provided by AAFC with the bid package or on a clear and legible reproduced copy of such BID AND ACCEPTANCE FORM that must be identical in content and format to the BID AND ACCEPTANCE FORM provided by AAFC;
 - (b) based on the Bid Documents listed in the Special Instructions to Bidders;
 - (c) correctly completed in all respects;
 - (d) signed, with an original signature, by a duly authorized representative of the Bidder; and
 - (e) accompanied by
 - (i) bid security as specified in Gl07; and
 - (ii) any other document or documents specified elsewhere in the solicitation where it is stipulated that said documents are to accompany the bid.
- Subject to paragraph 6) of GI10, any alteration to the pre-printed or pre-typed sections of the Bid and Acceptance Form, or any condition or qualification placed upon the bid shall be cause for disqualification. Alterations, corrections, changes or erasures made to statements or figures entered on the Bid and Acceptance Form by the Bidder shall be initialed by the person or persons signing the bid. Alterations, corrections, changes or erasures that are not initialed shall be deemed void and without effect.
- Unless otherwise noted elsewhere in the Bid Documents, facsimile copies of bids are not acceptable.



AAFC / AAC5313-E (2016/05) V1.1

GI02 IDENTITY OR LEGAL CAPACITY OF THE BIDDER

- 1) In order to confirm the authority of the person or persons signing the bid or to establish the legal capacity under which the Bidder proposes to enter into Contract, any Bidder who carries on business in other than its own personal name shall, if requested by Canada, provide satisfactory proof of
 - (a) such signing authority; and
 - (b) the legal capacity under which it carries on business;

prior to contract award. Proof of signing authority may be in the form of a certified copy of a resolution naming the signatory(ies) that is (are) authorized to sign this bid on behalf of the corporation or partnership. Proof of legal capacity may be in the form of a copy of the articles of incorporation or the registration of the business name of a sole proprietor or partnership.

GI03 APPLICABLE TAXES

1) "Applicable Taxes" means the Goods and Services Tax (GST), the Harmonized Sales Tax (HST), and any provincial tax, by law, payable by Canada such as, the Quebec Sales Tax (QST) as of April 1, 2013.

GI04 CAPITAL DEVELOPMENT AND REDEVELOPMENT CHARGES

For the purposes of GC1.8 LAWS, PERMITS AND TAXES in the General Conditions of the Contract, only fees or charges directly related to the processing and issuing of building permits shall be included. The Bidder shall not include any monies in the bid amount for special municipal development, redevelopment or other fees or charges which a municipal authority may seek as a prerequisite to the issuance of building permits.

GI05 REGISTRY AND PRE-QUALIFICATION OF FLOATING PLANT

1) Dredges or other floating plant to be used in the performance of the Work must be of Canadian registry. For dredges or other floating plant that are not of Canadian make or manufacture, the Bidder must obtain a certificate of qualification from Industry Canada and this certificate must accompany the bid. Plant so qualified by Industry Canada may be accepted on this project.

GI06 LISTING OF SUBCONTRACTORS AND SUPPLIERS

Notwithstanding any list of Subcontractors that the Bidder may be required to submit as part of the bid, the Bidder shall, within 48 hours of receipt of a notice to do so, submit all information requested in the said notice including the names of Subcontractors and Suppliers for the part or parts of the Work listed. Failure to do so shall result in the disqualification of its bid.

GI07 BID SECURITY REQUIREMENTS

1) The Bidder shall submit bid security with the bid in the form of a bid bond or a security deposit in an amount that is equal to not less than 10 percent of the bid amount. Applicable Taxes shall not be included when calculating the amount of any bid security that may be required. The maximum amount of bid security required with any bid is \$2,000,000.00.

- 2) A bid bond shall be in an approved form http://www.tbs-sct.gc.ca/pol/doc-eng.aspx?
 id=14494§ion=text#appS, properly completed, with original signature(s) and issued by an approved company whose bonds are acceptable to Canada either at the time of solicitation closing or as identified in Treasury Board Appendix L: Acceptable Bonding Companies.
- 3) A security deposit shall be an original, properly completed, signed where required and be either:
 - a bill of exchange, bank draft or money order made payable to the Receiver General for Canada and certified by an approved financial institution or drawn by an approved financial institution on itself; or
 - (b) bonds of, or unconditionally guaranteed as to principal and interest by, the Government of Canada;
- 4) For the purposes of subparagraph 3) (a) of GI07
 - (a) a bill of exchange is an unconditional order in writing signed by the Bidder and addressed to an approved financial institution, requiring the said institution to pay, on demand, at a fixed or determinable future time a sum certain of money to, or to the order of, the Receiver General for Canada;
 - (b) if a bill of exchange, bank draft or money order is certified by or drawn on an institution or corporation other than a chartered bank, it must be accompanied by proof that the said institution or corporation meets at least one of the criteria described in subparagraph 4.c. of Gl07, either by letter or by a stamped certification on the bill of exchange, bank draft or money; and
 - (c) An approved financial institution is:
 - a corporation or institution that is a member of the Canadian Payments Association as defined in the <u>Canadian Payments Act</u>;
 - (ii) a corporation that accepts deposits that are insured, to the maximum permitted by law, by the Canada Deposit Insurance Corporation or the "Autorité des marchés financiers";
 - (iii) a corporation that accepts deposits from the public if repayment of the deposit is guaranteed by Her Majesty the Queen in right of a province;
 - (iv) a corporation, association or federation incorporated or organized as a credit union or co-operative credit society that conforms to the requirements of a credit union which are more particularly described in paragraph 137(6) of the Income Tax Act; or
 - (v) Canada Post Corporation.
- 5) Bonds referred to in subparagraph 3)(b) of GI07 shall be provided on the basis of their market value current at the date of solicitation closing, and shall be:
 - (a) payable to bearer;
 - accompanied by a duly executed instrument of transfer of the bonds to the Receiver General for Canada in the form prescribed by the Domestic Bonds of Canada Regulations; or
 - (c) registered as to principal or as to principal and interest in the name of the Receiver General for Canada pursuant to the Domestic Bonds of Canada Regulations.

- As an alternative to a security deposit an irrevocable standby letter of credit is acceptable to Canada and the amount shall be determined in the same manner as a security deposit referred to above.
- 7) An irrevocable standby letter of credit referred to in paragraph 6) of GI07 shall
 - (a) be an arrangement, however named or described, whereby a financial institution (the "Issuer") acting at the request and on the instructions of a customer (the "Applicant) or on its own behalf.
 - (i) is to make a payment to, or to the order of, the Receiver General for Canada as the beneficiary;
 - (ii) is to accept and pay bills of exchange drawn by the Receiver General for Canada;
 - (iii) authorizes another financial institution to effect such payment or accept and pay such bills of exchange; or
 - (iv) authorizes another financial institution to negotiate against written demand(s) for payment provided that the terms and conditions of the letter of credit are complied with;
 - (b) state the face amount which may be drawn against it;
 - (c) state its expiry date;
 - (d) provide for sight payment to the Receiver General for Canada by way of the financial institution's draft against presentation of a written demand for payment signed by the Departmental Representative identified in the letter of credit by his/her office;
 - (e) provide that more than one written demand for payment may be presented subject to the sum of those demands not exceeding the face value of the letter of credit;
 - (f) provide that it is subject to the International Chamber of Commerce (ICC) Uniform Customs and Practice (UCP) for Documentary Credits, 2007 Revision, ICC Publication No. 600; pursuant to the ICC UCP; a credit is irrevocable even if there is no indication to that effect; and
 - (g) be issued or confirmed, in either official language, by a financial institution which is a member of the Canadian Payments Association and is on the letterhead of the Issuer or Confirmer. The format is left to the discretion of the Issuer or Confirmer.
- 8) Bid security shall lapse or be returned as soon as practical following:
 - (a) the solicitation closing date, for those Bidders submitting non-compliant bids; and
 - (b) the administrative bid review, for those Bidders submitting compliant bids ranked fourth to last on the schedule of bids; and
 - (c) the award of contract, for those Bidders submitting the second and third ranked bids; and
 - (d) the receipt of contract security, for the successful Bidder; or
 - (e) the cancellation of the solicitation, for all Bidders.
- 9) Notwithstanding the provisions of paragraph 8) of GI07 and provided more than three compliant bids have been received, if one or more of the bids ranked third to first is withdrawn or rejected

for whatever reason then Canada reserves the right to hold the security of the next highest ranked compliant bid in order to retain the bid security of at least three valid and compliant bids.

GI08 SUBMISSION OF BID

- The Bid and Acceptance Form, duly completed, and the bid security shall be enclosed and sealed in an envelope provided by the Bidder, and shall be addressed and submitted to the office designated on the INVITATION TO TENDER Form for the receipt of bids. The bid must be received on or before the date and time set for solicitation closing.
- 2) Unless otherwise specified in the Special Instructions to Bidders
 - (a) the bid shall be in Canadian currency;
 - (b) exchange rate fluctuation protection is not offered; and
 - (c) any request for exchange rate fluctuation protection shall not be considered.
- 3) Prior to submitting the bid, the Bidder shall ensure that the following information is clearly printed or typed on the face of the bid envelope:
 - (a) Solicitation Number;
 - (b) Name of Bidder;
 - (c) Return address; and
 - (d) Closing Date and Time.
- 4) Timely and correct delivery of bids is the sole responsibility of the Bidder.

GI09 REVISION OF BID

- A bid submitted in accordance with these instructions may be revised by letter or facsimile provided the revision is received at the office designated for the receipt of bids, on or before the date and time set for the closing of the solicitation. The letter or facsimile shall be on the Bidder's letterhead or bear a signature that identifies the Bidder;
- A revision to a bid that includes unit prices must clearly identify the changes(s) in the unit price(s) and the specific item(s) to which each change applies.
- A letter or facsimile submitted to confirm an earlier revision shall be clearly identified as a confirmation.
- 4) Failure to comply with any of the above provisions shall result in the rejection of the non-compliant revision(s) only. The bid shall be evaluated based on the original bid submitted and all other compliant revision(s).

GI10 REJECTION OF BID

- 1) Canada may accept any bid, whether it is the lowest or not, or may reject any or all bids.
- 2) Without limiting the generality of paragraph 1) of GI10, Canada may reject a bid if any of the following circumstances is present:

- the Bidder, or any employee or subcontractor included as part of the bid, has been convicted under Section 121 ("Frauds on the government" & "Contractor subscribing to election fund"), 124 "Selling or purchasing office"), 380 ("Fraud committed against Her Majesty") or 418 ("Selling defective stores to Her Majesty") of the Criminal Code of Canada, or under paragraph 80(1)(d) ("False entry, certificate or return"), subsection 80(2) ("Fraud against Her Majesty") or Section 154.01 ("Fraud against Her Majesty") of the Financial Administration Act;
- (b) the Bidder's bidding privileges are suspended or are in the process of being suspended;
- (c) the bidding privileges of any employee or subcontractor included as part of the bid are suspended or are in the process of being suspended, which suspension or pending suspension would render that employee or subcontractor ineligible to bid on the Work, or the portion of the Work the employee or subcontractor is to perform;
- the Bidder is bankrupt, or where for whatever reason, its activities are rendered inoperable for an extended period;
- (e) evidence, satisfactory to Canada, of fraud, bribery, fraudulent misrepresentation or failure to comply with any law protecting individuals against any manner of discrimination, has been received with respect to the Bidder, any of its employees or any subcontractor included as part of its bid;
- (f) evidence satisfactory to Canada that based on past conduct or behavior, the Bidder, a sub-contractor or a person who is to perform the Work is unsuitable or has conducted himself/herself improperly;
- (g) with respect to current or prior transactions with Canada
 - (i) Canada has exercised, or intends to exercise, the contractual remedy of taking the work out of the contractor's hands with respect to a contract with the Bidder, any of its employees or any subcontractor included as part of its bid; or
 - (ii) Canada determines that the Bidder's performance on other contracts is sufficiently poor to jeopardize the successful completion of the requirement being bid on.
- 3) In assessing the Bidder's performance on other contracts pursuant to subparagraph 2)(g)(ii)of GI10, Canada may consider, but not be limited to, such matters as:
 - (a) the quality of workmanship in performing the Work;
 - (b) the timeliness of completion of the Work;
 - (c) the overall management of the Work and its effect on the level of effort demanded of the department and its representative; and
 - (d) the completeness and effectiveness of the Contractor's safety program during the performance of the Work.
- 4) Without limiting the generality of paragraphs 1), 2) and 3) of GI10, Canada may reject any bid based on an unfavourable assessment of the:
 - (a) adequacy of the bid price to permit the work to be carried out and, in the case of a bid

- providing prices per unit or a combination of lump sum and prices per unit, whether each such price reasonably reflects the cost of performing the part of the work to which that price applies;
- (b) Bidder's ability to provide the necessary management structure, skilled personnel, experience and equipment to perform competently the work under the Contract; and
- (c) Bidder's performance on other contracts.
- 5) Where Canada intends to reject a bid pursuant to a provision of paragraphs 1), 2), 3) or 4) of GI10, other than subparagraph 2)(g)of IT10, the contracting authority will inform the Bidder and provide the Bidder ten (10) days within which to make representations, before making a final decision on the bid rejection.
- 6) Canada may waive informalities and minor irregularities in bids received if Canada determines that the variation of the bid from the exact requirements set out in the Bid Documents can be corrected or waived without being prejudicial to other Bidders.

GI11 BID COSTS

No payment will be made for costs incurred in the preparation and submission of a bid in response to the bid solicitation. Costs associated with preparing and submitting a bid, as well as any costs incurred by the Bidder associated with the evaluation of the bid, are the sole responsibility of the Bidder.

GI12 COMPLIANCE WITH APPLICABLE LAWS

- By submission of a bid, the Bidder certifies that the Bidder has the legal capacity to enter into a contract and is in possession of all valid licences, permits, registrations, certificates, declarations, filings, or other authorizations necessary to comply with all federal, provincial and municipal laws and regulations applicable to the submission of the bid and entry into any ensuing contract for the performance of the work.
- 2) For the purpose of validating the certification in paragraph 1) of Gl12, a Bidder shall, if requested, provide a copy of every valid licence, permit, registration, certificate, declaration, filing or other authorization listed in the request, and shall provide such documentation within the time limit(s) set out in the said request.
- 3) Failure to comply with the requirements of paragraph 2) of GI12 shall result in disqualification of the bid.

GI13 APPROVAL OF ALTERNATIVE MATERIALS

When materials are specified by trade names or trademarks, or by manufacturers' or suppliers' names, the bid shall be based on use of the named materials. During the solicitation period, alternative materials may be considered provided full technical data is received in writing by the Contracting Officer at least 10 calendar days prior to the solicitation closing date.

GI14 CONFLICT OF INTEREST - UNFAIR ADVANTAGE

1) In order to protect the integrity of the procurement process, bidders are advised that Canada may reject a bid in the following circumstances:

- if the Bidder, any of its subcontractors, any of their respective employees or former employees was involved in any manner in the preparation of the bid solicitation or in any situation of conflict of interest or appearance of conflict of interest;
- (b) if the Bidder, any of its subcontractors, any of their respective employees or former employees had access to information related to the bid solicitation that was not available to other bidders and that would, in Canada's opinion, give or appear to give the Bidder an unfair advantage.
- 2) The experience acquired by a bidder who is providing or has provided the goods and services described in the bid solicitation (or similar goods or services) will not, in itself, be considered by Canada as conferring an unfair advantage or creating a conflict of interest. This bidder remains however subject to the criteria established above.
- Where Canada intends to reject a bid under this section, the Contracting Authority will inform the Bidder and provide the Bidder an opportunity to make representations before making a final decision. Bidders who are in doubt about a particular situation should contact the Contracting Authority before bid closing. By submitting a bid, the Bidder represents that it does not consider itself to be in conflict of interest nor to have an unfair advantage. The Bidder acknowledges that it is within Canada's sole discretion to determine whether a conflict of interest, unfair advantage or an appearance of conflict of interest or unfair advantage exists.

GI15 INTEGRITY PROVISIONS - BID

- 1) Ineligibility and Suspension Policy (the "Policy"), and all related Directives, are incorporated by reference into, and form a binding part of the procurement process. The Supplier must comply with the Policy and Directives, which can be found at *Ineligibility and Suspension Policy*.
- Under the Policy, charges and convictions of certain offences against a Supplier, its affiliates or first tier subcontractors, and other circumstances, will or may result in a determination by Public Works and Government Services Canada (PWGSC) that the Supplier is ineligible to enter, or is suspended from entering into a contract with Canada. The list of ineligible and suspended Suppliers is contained in PWGSC's Integrity Database. The Policy describes how enquiries can be made regarding the ineligibility or suspension of Suppliers.
- In addition to all other information required in the procurement process, the Supplier must provide the following:
 - a. by the time stated in the Policy, all information required by the Policy described under the heading "Information to be Provided when Bidding, Contracting or Entering into a Real Property Agreement"; and
 - b. with its bid / quote / proposal, a complete list of all foreign criminal charges and convictions pertaining to itself, its affiliates and its proposed first tier subcontractors that, to the best of its knowledge and belief, may be similar to one of the listed offences in the Policy. The list of foreign criminal charges and convictions must be submitted using an Integrity Declaration Form, which can be found at <u>Declaration form for procurement</u>.
- 4) Subject to subsection 5, by submitting a bid / quote / proposal in response a request by AAFC, the Supplier certifies that:
 - a. it has read and understands the *Ineligibility and Suspension Policy*,

- b. it understands that certain domestic and foreign criminal charges and convictions, and other circumstances, as described in the Policy, will or may result in a determination of ineligibility or suspension under the Policy:
- it is aware that Canada may request additional information, certifications, and validations from the Supplier or a third party for purposes of making a determination of ineligibility or suspension;
- d. it has provided with its bid / quote / proposal a complete list of all foreign criminal charges and convictions pertaining to itself, its affiliates and its proposed first tier subcontractors that, to the best of its knowledge and belief, may be similar to one of the listed offences in the Policy;
- e. none of the domestic criminal offences, and other circumstances, described in the Policy that will or may result in a determination of ineligibility or suspension, apply to it, its affiliates and its proposed first tier subcontractors; and
- f. it is not aware of a determination of ineligibility or suspension issued by PWGSC that applies to it.
- 5) Where a Supplier is unable to provide any of the certifications required by subsection 4, it must submit with its bid/ quote / proposal a completed Integrity Declaration Form, which can be found at Declaration form for procurement.
- Canada will declare non-responsive any bid / quote / proposal in respect of which the information requested is incomplete or inaccurate, or in respect of which the information contained in a certification or declaration is found by Canada to be false or misleading in any respect. If Canada establishes after award of the Contract that the Supplier provided a false or misleading certification or declaration, Canada may terminate the Contract for default. Pursuant to the Policy, Canada may also determine the Supplier to be ineligible for award of a contract for providing a false or misleading certification or declaration.

Ineligibility and Suspension Policy - http://www.tpsgc-pwgsc.gc.ca/ci-if/politique-policy-eng.html

Declaration form for procurement - http://www.tpsgc-pwgsc.gc.ca/ci-if/declaration-eng.html

GI16 CODE OF CONDUCT FOR PROCUREMENT - BID

The Code of Conduct for Procurement provides that Bidders must respond to bid solicitations in an honest, fair and comprehensive manner, accurately reflect their capacity to satisfy the requirements set out in the bid solicitation and resulting contract, submit bids and enter into contracts only if they will fulfill all obligations of the Contract. By submitting a bid, the Bidder is certifying that it is complying with the Code of Conduct for Procurement. Failure to comply with the Code of Conduct for Procurement may render the bid non-responsive.

Appendix "B"

SPECIAL INSTRUCTIONS TO BIDDERS

SPECIAL INSTRUCTIONS TO BIDDERS (SI)

SI01 SI02	Bid Documents Enquiries during the Solicitation Period
SI03	Non-Mandatory Site Visit
S104	Revision of Bid
S105	Bid Results
SI06	Insufficient Funds
SI07	Bid Validity Period
SI08	Construction Documents
SI09	Web Sites

Personnel Security Requirements

SI01 BID DOCUMENTS

SI10

- 1) The following are the bid documents:
 - (a) INVITATION TO TENDER Page 1 form AAFC / AAC5323-E;
 - (b) SPECIAL INSTRUCTIONS TO BIDDERS form AAFC / AAC5301-E;
 - (c) GENERAL INSTRUCTIONS TO BIDDERS form AAFC / AAC5313-E;
 - (d) Clauses and Conditions identified in "CONTRACT DOCUMENTS";
 - (e) Drawings and Specifications;
 - (f) BID AND ACCEPTANCE form AAFC / AAC5320-E and any Appendices attached thereto; and,
 - (g) Any amendment issued prior to solicitation closing.

Submission of a bid constitutes acknowledgement that the Bidder has read and agrees to be bound by these documents.

SI02 ENQUIRIES DURING THE SOLICITATION PERIOD

- Enquiries regarding this bid must be submitted in writing to the Contracting Officer named on the INVITATION TO TENDER Page 1 as early as possible within the solicitation period. Except for the approval of alternative materials as described in GI13 of the GENERAL INSTRUCTIONS TO BIDDERS, enquiries should be received no later than five (5) calendar days prior to the date set for solicitation closing to allow sufficient time to provide a response. Enquiries received after that time may not result in an answer being provided.
- To ensure consistency and quality of the information provided to Bidders, the Contracting Officer shall examine the content of the enquiry and shall decide whether or not to issue an amendment.
- 3) All enquiries and other communications related to this bid sent throughout the solicitation period are to be directed ONLY to the Contracting Officer named on the INVITATION TO TENDER -Page 1. Non-compliance with this requirement during the solicitation period can, for that reason alone, result in disqualification of a bid.

SI03 NON-MANDATORY SITE VISIT

1) There will be a site visit on Thursday, September, 17 , 2020 at

• AM • PM Local Standard Time.



Interested bidders are to meet at:

Fredericton Research and Development Centre 850 Lincoln Road Fredericton, NB. E3B 4Z7 Commissionaire Desk - Building 1

IMPORTANT:

Due to COVID-19, site visits will be by appointment only and must be scheduled at least 2 days in advance.

Interested bidders must contact Sean Brown (FRDC Facilities Manager): (506) 460-4352 or (506) 451-5079

SI04 REVISION OF BID

 A bid may be revised by letter or facsimile in accordance with GI09 of the GENERAL INSTRUCTIONS TO BIDDERS. The facsimile number for receipt of revisions is 514 283-1918

SI05 BID RESULTS

1) Following bid closing, bid results may be obtained from the bid receiving office by email at jean-francois.lemay@canada.ca

SI06 INSUFFICIENT FUNDING

- 1) In the event that the lowest compliant bid exceeds the amount of funding allocated for the Work, Canada in its sole discretion may:
 - (a) cancel the solicitation; or
 - (b) obtain additional funding and award the Contract to the Bidder submitting the lowest compliant bid; and/or
 - (c) negotiate a reduction in the bid price and/or scope of work of not more than 15% with the Bidder submitting the lowest compliant bid. Should an agreement satisfactory to Canada not be reached, Canada shall exercise option (a) or (b).

SI07 BID VALIDITY PERIOD

- 1) Canada reserves the right to seek an extension to the bid validity period prescribed in Clause 4 of the BID AND ACCEPTANCE Form. Upon notification in writing from Canada, Bidders shall have the option to either accept or reject the proposed extension.
- 2) If the extension referred to in paragraph 1) of SI07 is accepted, in writing, by all those who submitted bids, then Canada shall continue immediately with the evaluation of the bids and its approvals processes.
- 3) If the extension referred to in paragraph 1) of SI07 is not accepted in writing by all those who submitted bids then Canada shall, at its sole discretion, either:
 - (a) continue to evaluate the bids of those who have accepted the proposed extension and seek the necessary approvals; or
 - (b) cancel the invitation to bid.

4) The provisions expressed herein do not in any manner limit Canada's rights in law or under GI10 of the GENERAL INSTRUCTIONS TO BIDDERS.

SI08 CONSTRUCTION DOCUMENTS

The successful contractor will be provided with one paper copy of the sealed and signed plans, the specifications and the amendments upon acceptance of the offer. Additional copies, up to a maximum of two (2), will be provided free of charge upon request by the Contractor. Obtaining more copies shall be the responsibility of the Contractor including costs.

SI09 WEB SITES

The connection to some of the Web sites in the solicitation documents is established by the use of hyperlinks. The following is a list of the addresses of the Web sites:

Treasury Board Appendix L, Acceptable Bonding Companies http://www.tbs-sct.gc.ca/pol/doc-eng.aspx?id=14494§ion=text#appL

Canadian economic sanctions

http://www.international.gc.ca/sanctions/index.aspx?lang=eng

SI10 PERSONNEL SECURITY REQUIREMENTS

- The successful Bidder's personnel, as well as any subcontractor and its personnel, who are required to perform any part of the work pursuant to the subsequent contract, must meet the following contract security requirements:
 - Personnel who are required to perform any part of the work must EACH hold a valid personnel security screening at the level of RELIABILITY STATUS, granted or approved by Agriculture and Agri-Food Canada. Until the security screening of the personnel has been completed satisfactorily by Agriculture and Agri-Food Canada, the Contractor/Subcontractor personnel MAY NOT perform contract work. Each of the proposed staff must complete "Security Clearance Form" (TBS 330-23E) upon request from Canada.

Appendix "C"

BID AND ACCEPTANCE FORM

BID AND ACCEPTANCE FORM

CONSTRUCTION CONTRACT - MAJOR WORKS

BA01 IDENTII	BA01 IDENTIFICATION						
Description of t	Description of the Work						
			eplace the humidifica omplex of the Frederi				ent rooms
The Agricu Brunswick.	lture and A	gri-Food C	anada Facility is loc	cated at 850) Lincoln Road in	Fredericton	New
			mplete removal and re nstalled as part of t				
Solicitation Nur	nber			File / Project Nu	ımber		
01в46-20-0	49						
BA02 BUSINE	SS NAME AND	ADDRESS OF	BIDDER				
Name							
Address	1					1	
Unit/Suite/Apt.	Street number	Number suffix	Street name			Street type	Street direction
PO Box or Rou	te Number		Municipality (City, Town, etc.)			Province	Postal code
Phone number			Fax number		Email address		1
BA03 THE OF	FER						
	The Bidder offers to Canada as represented by the Minister of Agriculture and Agri-food Canada to perform and complete the Work for the above named project in accordance with the Bid Documents for the Total Bid Amount of:					e above named	
\$		exclu	ıding Applicable Taxes (GST/HS	ST/QST).			
(to be ex	pressed in numb	ers only)					
BA04 BID VALIDITY PERIOD							
1) The bid sha	all not be withdra	wn for a period	of 60 days following the date	of solicitation clos	sing.		
BA05 APPEN	DICES						
1) The following Append	•	e included in thi	s Bid and Acceptance Form:				
BA06 ACCEP	TANCE AND CO	NTRACT					
			anada, a binding Contract shall locuments referred to in SC01 C			g Contractor. The	documents
BA07 CONSTRUCTION TIME							
1) The Contractor shall perform and complete the Work on or before 2020-11-30							
BA08 BID SECURITY							
1) The Bidder	shall enclose bio	I security with its	s bid in accordance with GI07 BI	ID SECURITY RE	EQUIREMENTS.		
2) If a security deposit is furnished as bid security, it shall be forfeited in the event that the bid is accepted by Canada and the Contractor fails to provide Contract Security in accordance with GC9 CONTRACT SECURITY, provided that Canada may, if it is in the public interest, waive the right of Canada to forfeiture any or all of the security deposit.							



BA09 SIGNATURE						
	Name					
Name and title of person authorized						
to sign on behalf of Bidder	Title					
(type or print)						
	Signature	Date				
	Name					
	Title					
	Signature	Date				
BA10 INTEGRITY PROVISIONS - LIS	T OF NAMES					
If the required list of names has not bee provide the information. Failure to provid mandatory requirement for contract awareners.	n received by the time the evaluation of bids is completed, Canada will inform the the names within the time frame specified will render the bid non-responsived.	n the Bidder of a time frame within which to ve. Providing the required names is a				
Bidders who are incorporated, including the Bidder.	those bidding as a joint venture, must provide a complete list of names of all	individuals who are currently directors of				
Bidders bidding as sole proprietorship, a	as well as those bidding as a joint venture, must provide the name of the owner	er(s).				
Bidders bidding as societies. firms or pa	rtnerships do not need to provide lists of names.					
, ,	· ·					
						

BID AND ACCEPTANCE FORM

CONSTRUCTION CONTRACT - MAJOR WORKS APPENDIX 2

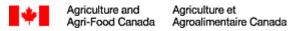
LIST OF SUBCONTRACTORS

LIST OF EQUIPMENT

N/A

The Bidder will subcontract the parts of the work listed below to the subcontractor named for each part. The Bidder agrees not to make changes in the list of subcontractors without the written consent of the Departmental Representative. The Bidder understands that for each part of the work, if more than one subcontractor is named, or no subcontractor is named, or, the Bidder fails to state that the work will be done by its own forces where applicable, the bid will be subject to disqualification.

LIST OF MATERIALS			
N/A			



Appendix "D"

MAJOR WORKS - GENERAL CONDITIONS

MAJOR WORKS - GENERAL CONDITIONS

Page 1 of 62

MAJO	R WORKS GENERAL CONDITIONS FORM AAFC 5321:	Revision Date
GC1	GENERAL PROVISIONS	2016-05-01
GC2	ADMINISTRATION OF THE CONTRACT	2016-05-01
GC3	EXECUTION AND CONTROL OF THE WORK	2016-01-01
GC4	PROTECTIVE MEASURES	Original
GC5	TERMS OF PAYMENT	2016-05-01
GC6	DELAYS AND CHANGES IN THE WORK	Original
GC7	DEFAULT, SUSPENSION OR TERMINATION OF CONTRACT	Original
GC8	DISPUTE RESOLUTION	2016-05-01
GC9	CONTRACT SECURITY	2016-05-01
GC10	INSURANCE	Original

GC1 GENERAL PROVISIONS

GC1.1	INTERPRE	ETATION
	GC1.1.1	Headings and References
	GC1.1.2	Terminology
	GC1.1.3	Application of Certain Provisions
	GC1.1.4	Substantial Performance
	GC1.1.5	Completion
GC1.2	CONTRAC	CT DOCUMENTS
	GC1.2.1	General
	GC1.2.2	Order of Precedence
	GC1.2.3	Security and Protection of Documents and Work
GC1.3	STATUS C	OF THE CONTRACTOR
GC1.4	RIGHTS A	ND REMEDIES
GC1.5	TIME OF T	THE ESSENCE
GC1.6	INDEMNIF	ICATION BY THE CONTRACTOR
GC1.7	INDEMNIF	ICATION BY CANADA
GC1.8	LAWS, PE	RMITS AND TAXES
GC1.9	WORKERS	S' COMPENSATION
GC1.10	NATIONAL	_ SECURITY
GC1.11	UNSUITAE	BLE WORKERS
GC1.12		EREMONIES AND SIGNS
GC1.13	CONFLICT	OF INTEREST
GC1.14	AGREEME	ENTS AND AMENDMENTS
GC1.15	SUCCESS	SION
GC1.16	ASSIGNM	ENT
GC1.17	NO BRIBE	
GC1.18	_	ATION - CONTINGENCY FEES
GC1.19		TIONAL SANCTIONS
GC1.20	INTEGRIT	Y PROVISIONS – CONTRACT
CC1 21	CODE OF	CONDLICT FOR PROCLIDEMENT - CONTRACT

GC1.1 (2016-05-01) INTERPRETATION

GC1.1.1 Headings and References

- The headings in the contract documents, other than those in the drawings and specifications, form no part of the Contract but are inserted for convenience of reference only.
- 2) A reference made to a part of the Contract by means of numbers preceded by letters is a reference to the particular part of the Contract that is identified by that combination of letters and numbers and to any other part of the Contract referred to therein.
- 3) A reference to a paragraph or subparagraph followed by an identifying number, letter or combination thereof is, unless specifically stated otherwise, a reference to the paragraph or subparagraph that forms part of the clause within which the reference is made.

GC1.1.2 Terminology

In the Contract, unless the context otherwise requires:

"Administrative Agreement"

is a negotiated agreement with the Minister of AAFC as provided for in the Ineligibility and Suspension Policy.

"Affiliate"

is a person, including, but not limited to, organizations, bodies corporate, societies, companies, firms, partnerships, associations of persons, parent companies or subsidiaries, whether partly or wholly-owned, as well as individuals, directors, officers and key employees if:

- (i) one controls or has the power to control the other, or
- (ii) a third party has the power to control both.

"Applicable Taxes"

means the Goods and Services Tax (GST), the Harmonized Sales Tax (HST), and any provincial tax, by law, payable by Canada such as, the Quebec Sales Tax (QST) as of April 1, 2013;

"Canada", "Crown", "Her Majesty"

means Her Majesty the Queen in right of Canada;

"Contract"

means the contract documents referred to as such therein and every other document specified or referred to in any of them as forming part of the Contract, all as amended by agreement of the parties;

"Contract Amount"

means the amount set out in the Contract to be payable to the Contractor for the Work, subject to the terms and conditions of the Contract, exclusive of Applicable Taxes;

"Contract Security"

means any security given by the Contractor to Canada in accordance with the Contract;

"Contractor"

means the person contracting with Canada to provide or furnish all labour, Material and Plant for the execution of the Work under the Contract, and includes the Contractor's superintendent as designated in writing to Canada.

"Certificate of Completion"

means a certificate issued by Canada when the Work reaches Completion;

"Certificate of Measurement"

means a certificate issued by Canada certifying the correctness of the final quantities, prices per unit and values of labour, Plant and Material performed, used and supplied by the Contractor for the construction of the part of the Work to which a Unit Price Arrangement applies;

"Certificate of Substantial Performance"

means a certificate issued by Canada when the Work reaches Substantial Performance;

"Control"

means:

- a) direct control, such as where:
 - a person controls a body corporate if securities of the body corporate to which are attached more than 50 percent of the votes that may be cast to elect directors of the body corporate are beneficially owned by the person and the votes attached to those securities are sufficient, if exercised, to elect a majority of the directors of the body corporate;

- (ii) a person controls a corporation that is organized on a cooperative basis if the person and all of the entities controlled by the person have the right to exercise more than 50 percent of the votes that may be cast at an annual meeting or to elect the majority of the directors of the corporation;
- (iii) a person controls an unincorporated entity, other than a limited partnership, if more than 50 percent of the ownership interests, however designated, into which the entity is divided are beneficially owned by that person and the person is able to direct the business and affairs of the entity;
- (iv) the general partner of a limited partnership controls the limited partnership; and
- a person controls an entity if the person has any direct or indirect influence that, if exercised, would result in control in fact of the entity.
- b) deemed control, such as where:
 a person who controls an entity is deemed to control any entity that is controlled,
 or deemed to be controlled, by the entity
- c) indirect control, such as where:
 a person is deemed to control, within the meaning of paragraph (a) or (b), an entity where the aggregate of:
 - (i) any securities of the entity that are beneficially owned by that person, and
 - (ii) any securities of the entity that are beneficially owned by any entity controlled by that person

is such that, if that person and all of the entities referred to in paragraph (c)(ii) that beneficially own securities of the entity were one person, that person would control the entity.

"Departmental Representative"

means the person designated in the Contract, or by written notice to the Contractor, to act as the Departmental Representative for the purposes of the Contract, and includes a person, designated and authorized in writing by the Departmental Representative to the Contractor;

"herein", "hereby", "hereof", "hereunder" and similar expressions refer to the Contract as a whole and not to any particular section or part thereof;

"Ineligibility"

means a person not eligible to contract with Canada;

"Lump Sum Arrangement"

means that part of the Contract that prescribes a lump sum as payment for performance of the Work to which it relates;

"Material"

includes all commodities, articles, machinery, equipment, fixtures and things required to be furnished in accordance with the Contract for incorporation into the Work;

"person"

also includes, unless there is an express stipulation in the Contract to the contrary, any partnership, proprietorship, firm, joint venture, consortium or corporation;

"Plant"

includes all tools, implements, machinery, vehicles, structures, equipment, articles and things that are necessary for the performance of the Contract, other than Material and those tools customarily provided by a tradesperson in practicing a trade;

"Subcontractor"

means a person having a direct contract with the Contractor, subject to GC3.6

"Subcontracting", to perform a part or parts of the Work, or to supply Material customized for the Work;

"Superintendent"

means the employee or representative of the Contractor designated by the Contractor to act pursuant to GC2.6, "Superintendent";

"Supplementary Conditions"

means the part of the Contract that amends or supplements the General Conditions;

"Supplier"

means a person having a direct contract with the Contractor to supply Plant or Material not customized for the Work;

"Suspension"

means a determination of temporary ineligibility by the Minister of AAFC;

"Total Estimated Cost", "Revised Estimated Cost", "Increase (Decrease)" on Page 1 of the Contract or Contract Amendment means an amount used for internal administrative purposes only that comprises the Contract Amount, or the revised Contract Amount, or the amount that would increase or decrease the Contract Amount and the Applicable Taxes as evaluated by the Contracting Authority, and does not constitute tax advice on the part of Canada:

"Unit Price Arrangement"

means that part of the Contract that prescribes the product of a price per unit of measurement multiplied by a number of units of measurement for performance of the Work to which it relates;

"Unit Price Table"

means the table of prices per unit set out in the Contract;

"Work"

means, subject only to any express stipulation in the Contract to the contrary, everything that is necessary to be done, furnished or delivered by the Contractor to perform the Contract in accordance with the contract documents; and

"Working Day"

means a day other than a Saturday, Sunday, or a statutory holiday that is observed by the construction industry in the area of the place of the Work.

GC1.1.3 Application of Certain Provisions

- 1) Any provisions of the Contract that are expressly stipulated to be applicable only to a Unit Price Arrangement are not applicable to any part of the Work to which a Lump Sum Arrangement applies.
- Any provisions of the Contract that are expressly stipulated to be applicable only to a Lump Sum Arrangement are not applicable to any part of the Work to which a Unit Price Arrangement applies.

GC1.1.4 Substantial Performance

- 1) The Work shall be considered to have reached Substantial Performance when
 - a) the Work or a substantial part thereof has passed inspection and testing and is, in the opinion of Canada, ready for use by Canada or is being used for the intended purposes; and
 - b) the Work is, in the opinion of Canada, capable of completion or correction at a cost of not more than
 - (i) 3 percent of the first \$500,000;
 - (ii) 2 percent of the next \$500,000; and
 - (iii) 1 percent of the balance

of the Contract Amount at the time this cost is calculated.

- 2) Where the Work or a substantial part thereof is ready for use or is being used for the purposes intended and
 - a. the remainder of the Work or a part thereof cannot be completed by the time specified in the Contract, or as amended in accordance with GC6.5, "Delays and Extension of Time", for reasons beyond the control of the Contractor; or
 - b. Canada and the Contractor agree not to complete a part of the Work within the specified time;

the cost of that part of the Work that was either beyond the control of the Contractor to complete or Canada and the Contractor have agreed not to complete by the time specified, shall be deducted from the value of the Contract referred to in subparagraph 1)(b) of GC1.1.4 and the said cost shall not form part of the cost of the Work remaining to be done in determining Substantial Performance.

GC1.1.5 Completion

The Work shall be deemed to have reached Completion when all labour, Plant and Material required have been performed, used or supplied, and the Contractor has complied with the Contract and all orders and directions made pursuant thereto, all to the satisfaction of Canada.

GC1.2 (2016-05-01) CONTRACT DOCUMENTS

The following discusses contract documents

GC1.2.1 General

 The contract documents are complementary, and what is required by any one shall be as binding as if required by all.

- 2) References in the contract documents to the singular shall be considered to include the plural as the context requires.
- Nothing contained in the contract documents shall create a contractual relationship between Canada and any Subcontractor or Supplier, their subcontractors or suppliers, or their agents or employees.

GC1.2.2 Order of Precedence

- 1) In the event of any discrepancy or conflict in the contents of the following documents, such documents shall take precedence and govern in the following order:
 - a) any amendment or variation of the contract documents that is made in accordance with the General Conditions;
 - b) any amendment issued prior to tender closing;
 - c) Supplementary Conditions;
 - d) General Conditions;
 - e) the duly completed Bid and Acceptance Form when accepted;
 - f) drawings and specifications.

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

- 2) In the event of any discrepancy or conflict in the information contained in the drawings and specifications, the following rules shall apply:
 - a) specifications shall govern over drawings;
 - b) dimensions shown in figures on a drawings shall govern where they differ from dimensions scaled from the same drawings; and
 - c) drawings of larger scale govern over those of smaller scale.

GC1.2.3 Security and Protection of Documents and Work

- The Contractor shall guard and protect contract documents, drawings, information, models and copies thereof, whether supplied by Canada or the Contractor, against loss or damage from any cause.
- 2) The Contractor shall keep confidential all information provided to the Contractor by or on behalf of Canada in connection with the Work, and all information developed by the Contractor as part of the Work, and shall not disclose any such information to any person without the written permission of Canada, except that the Contractor may disclose to a subcontractor, authorized in accordance with the Contract, information necessary to the performance of a subcontract. This section does not apply to any information that
 - a) is publicly available from a source other than the Contractor; or

- b) is or becomes known to the Contractor from a source other than Canada, except any source that is known to the Contractor to be under an obligation to Canada not to disclose the **information**.
- 3) When the Contract, the Work, or any information referred to in paragraph 2) is identified as top secret, secret, confidential, or protected by Canada, the Contractor shall, at all times, take all measures reasonably necessary for the safeguarding of the material so identified, including such measures as may be further specified elsewhere in the Contract or provided, in writing, from time to time by Canada.
- 4) Without limiting the generality of paragraphs 2) and 3) of GC1.2.3, when the Contract, the Work, or any information referred to in paragraph 2) is identified as top secret, secret, confidential, or protected by Canada, Canada shall be entitled to inspect the Contractor's premises and the premises of its subcontractors or suppliers and any other person at any tier, for security purposes at any time during the term of the Contract, and the Contractor shall comply with, and ensure that any such subcontractors or suppliers comply with all written instructions issued by Canada dealing with the material so identified, including any requirement that employees of the Contractor and its subcontractors and suppliers and any other person at any tier execute and deliver declarations relating to reliability screenings, security clearances and other procedures.
- 5) The Contractor shall safeguard the Work and the Contract, the specifications, drawings and any other information provided by Canada to the Contractor, and shall be liable to Canada for any loss or damage from any causes.

GC1.3 STATUS OF THE CONTRACTOR

- 1) The Contractor is engaged under the Contract as an independent contractor.
- 2) The Contractor, its subcontractors and suppliers and any other person at any tier and their employees are not engaged by the Contract as employees, servants or agents of Canada.
- 3) For the purposes of the contract the Contractor shall be solely responsible for any and all payments and deductions required to be made by law including those required for Canada or Quebec Pension Plans, Employment Insurance, Worker's Compensation, provincial health or insurance plans, and Income Tax.

GC1.4 (2016-05-01) RIGHTS AND REMEDIES

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

GC1.5 (2016-05-01) TIME OF THE ESSENCE

1) Time is of the essence of the Contract.

GC1.6 INDEMNIFICATION BY THE CONTRACTOR

1) The Contractor shall pay all royalties and patent fees required for the performance of the Contract and, at the Contractor's expense, shall defend all claims, actions or proceedings

- against Canada charging or claiming that the Work or any part thereof provided or furnished by the Contractor to Canada infringes any patent, industrial design, copyright trademark, trade secret or other proprietary right enforceable in Canada.
- 2) The Contractor shall indemnify and save Canada harmless from and against all claims, demands, losses, costs, damages, actions, suits, or proceedings by any third party, brought or prosecuted and in any manner based upon, arising out of, related to, occasioned by, or attributable to the activities of the Contractor, its subcontractors and suppliers and any other person at any tier, in performing the Work.
- 3) For the purposes of paragraph 2) of GC1.6, "activities" means any act improperly carried out, any omission to carry out an act and any delay in carrying out an act.

GC1.7 (2016-05-01) INDEMNIFICATION BY CANADA

- Subject to the <u>Crown Liability and Proceedings Act</u>, the <u>Patent Act</u>, and any other law that affects Canada's rights, powers, privileges or obligations, Canada shall indemnify and save the Contractor harmless from and against all claims, demands, losses, costs, damage, actions, suits or proceedings arising out of the Contractor's activities under the Contract that are directly attributable to
 - a) a lack of or a defect in Canada's title to the Work site if owned by Canada, whether real or alleged; or
 - b) an infringement or an alleged infringement by the Contractor of any patent of invention or any other kind of intellectual property occurring while the Contractor was performing any act for the purposes of the Contract employing a model, plan or design or any other thing related to the Work that was supplied by Canada to the Contractor.

GC1.8 (2016-05-01) LAWS, PERMITS AND TAXES

- The Contractor shall comply with all federal, provincial and municipal laws and regulations applicable to the performance of the Work or any part thereof including, without limitation, all laws concerning health and the protection of the environment, and shall require compliance therewith by all of its subcontractors and suppliers at any tier as if the Work were being performed for an owner other than Canada. The Contractor shall furnish evidence of compliance with such laws and regulations to Canada at such times as Canada may reasonably request.
- 2) Unless stipulated otherwise in the Contract, the Contractor shall obtain and maintain all permits, certificates, licences, registrations and authorizations required for the lawful performance of the Work.
- 3) Prior to the commencement of the Work at the site, the Contractor shall tender to a municipal authority an amount equal to all fees and charges that would be lawfully payable to that municipal authority in respect of building permits as if the Work were being performed for an owner other than Canada.
- 4) Within 10 days of making a tender pursuant to paragraph 3) of GC1.8, the Contractor shall notify Canada of the amount properly tendered and whether or not the municipal authority has accepted that amount.

- 5) If the municipal authority has not accepted the amount tendered, the Contractor shall pay that amount to Canada within 6 days after the time stipulated in paragraph 4) of GC1.8.
- 6) For the purposes of this clause, "municipal authority" means any authority that would have jurisdiction respecting permission to perform the Work if the owner were not Canada.
- Notwithstanding the residency of the Contractor, the Contractor shall pay any applicable tax arising from or related to the performance of the Work under the Contract.
- 8) In accordance with the Statutory Declaration referred to in paragraph 4) of GC5.5, "Substantial Performance of the Work", a Contractor who has neither residence nor place of business in the province or territory in which work under the Contract is being performed shall provide Canada with proof of registration with the provincial sales tax authorities in the said province.
- 9) For the purpose of the payment of any Applicable Taxes or the furnishing of security for the payment of any Applicable Taxes arising from or related to the performance of the Work, and notwithstanding the provision that all Material, Plant and interest of the Contractor in all real property, licences, powers and privileges, become the property of Canada after the time of purchase in accordance with GC3.10, "Material Plant and Real Property Become Property of Canada", the Contractor shall be liable, as a user or consumer, for the payment or for the furnishing of security for the payment of any Applicable Taxes payable, at the time of the use or consumption of that Material, Plant or interest of the Contractor in accordance with the relevant legislation.
- 10) Federal government departments and agencies are required to pay Applicable Taxes.
- 11) Applicable Taxes will be paid by Canada as provided in the request for payment. It is the sole responsibility of the Contractor to charge Applicable Taxes at the correct rate in accordance with applicable legislation. The Contractor agrees to remit to appropriate tax authorities any amounts of Applicable Taxes paid or due.
- 12) The Contractor is not entitled to use Canada's exemptions from any tax, such as provincial sales taxes, unless otherwise specified by law. The Contractor must pay applicable provincial sales tax, ancillary taxes, and any commodity tax, on taxable goods or services used or consumed in the performance of the Contract (in accordance with applicable legislation), including for material incorporated into real property.
- 13) In those cases where Applicable Taxes, customs duties, and excise taxes are included in the Contract Amount, the Contract Amount will be adjusted to reflect any increase, or decrease, of Applicable Taxes, customs duties, and excise taxes that will have occurred between bid submission and contract award. However, there will be no adjustment for any change to increase the Contract Amount if public notice of the change was given before bid submission date in sufficient detail to have permitted the Contractor to calculate the effect of the change.
- 14) Tax Withholding of 15 Percent Canada Revenue Agency
 Pursuant to the *Income Tax Act*, 1985, c. 1 (5th Supp.) and the *Income Tax Regulations*,
 Canada must withhold 15 percent of the amount to be paid to the Contractor in respect of services provided in Canada if the Contractor is not a resident of Canada, unless the Contractor obtains a valid waiver from the Canada Revenue Agency. The amount withheld will be held on account for the Contractor in respect to any tax liability which may be owed to Canada.

GC1.9 WORKERS' COMPENSATION

- Prior to commencement of Work, at the time of Substantial Performance of the Work, and prior to issuance of the Certificate of Completion, the Contractor shall provide evidence of compliance with workers' compensation legislation applicable to the place of the Work, including payments due thereunder.
- 2) At any time during the term of the Contract, when requested by Canada, the Contractor shall provide such evidence of compliance by the Contractor, its subcontractors and any other person at any tier and any other person performing part of the Work who is required to comply with such legislation.

GC1.10 NATIONAL SECURITY

- If Canada determines that the Work is of a class or kind that involves national security, Canada may order the Contractor to
 - (a) provide Canada with any information concerning persons employed or to be employed by the Contractor for purposes of the Contract; and
 - (b) remove any person from the site of the Work if, in the opinion of Canada, that person may be a risk to the national security;
 - and the Contractor shall comply with the order.
- 2) In all contracts with persons who are to be employed in the performance of the Contract, the Contractor shall make provision for the performance of any obligation that may be imposed upon the Contractor under paragraph 1) of GC1.10.

GC1.11 (2016-05-01) UNSUITABLE WORKERS

 Canada shall instruct the Contractor to remove from the site of the Work any person employed by the Contractor for purposes of the Contract who, in the opinion of Canada, is incompetent or is guilty of improper conduct, and the Contractor shall not permit a person who has been removed to return to the site of the Work.

GC1.12 PUBLIC CEREMONIES AND SIGNS

- 1) The Contractor shall not permit any public ceremony in connection with the Work without the prior consent of Canada.
- 2) The Contractor shall not erect nor permit the erection of any sign or advertising on the Work or its site without the prior consent of Canada.

GC1.13 (2016-05-01) CONFLICT OF INTEREST

1) It is a term of the Contract that no individual, for whom the post-employment provisions of the Conflict of Interest and Post-Employment Code for Public Office Holders or the Values and Ethics Code for the Public Service apply, shall derive a direct benefit from the Contract unless that individual is in compliance with the applicable post-employment provisions.

GC1.14 AGREEMENTS AND AMENDMENTS

- 1) The Contract constitutes the entire and sole agreement between the parties with respect to the subject matter of the Contract and supersedes all previous negotiations, communications and other agreements, whether written or oral, relating to it, unless they are incorporated by reference in the Contract. There are no terms, covenants, representations, statements or conditions binding on the parties other than those contained in the Contract.
- 2) The failure of either party at any time to require performance by the other party of any provision hereof shall not affect the right thereafter to enforce such provision. Nor shall the waiver by either party of any breach of any covenant, term or condition hereof be taken to be held to be a waiver of any further breach of the same covenant, term or condition.
- 3) The Contract may be amended only as provided for in the Contract.

GC1.15 (2016-05-01) SUCCESSION

 The Contract shall inure to the benefit of and be binding upon the parties hereto and their lawful heirs, executors, administrators, successors and, subject to GC1.16, "Assignment", permitted assigns.

GC1.16 (2016-05-01) ASSIGNMENT

1) The Contractor shall not make any assignment of the Contract, either in whole or in part, without the written consent of Canada.

GC1.17 (2016-05-01) NO BRIBE

1) The Contractor represents and covenants that no bribe, gift, benefit, nor other inducement has been nor shall be paid, given, promised or offered directly or indirectly to any official or employee of Canada or to a member of the family of such a person, with a view to influencing the entry into the Contract or the administration of the Contract.

GC1.18 CERTIFICATION - CONTINGENCY FEES

- 1) In this clause
 - (a) "contingency fee" means any payment or other compensation that is contingent upon or is calculated upon the basis of a degree of success in soliciting or obtaining a Government contract or negotiating the whole or any part of its terms;
 - (b) "employee" means a person with whom the Contractor has an employer/employee relationship; and
 - (c) "person" includes an individual or a group of individuals, a corporation, a partnership, an organization and an association and, without restricting the generality of the foregoing, includes any individual who is required to file a return with the registrar pursuant to section 5 of the Lobbying Act R.S.C. 1985 c.44 (4th Supplement) as the same may be amended from time to time.
- 2) The Contractor certifies that it has not directly or indirectly paid nor agreed to pay and covenants that it shall not directly or indirectly pay nor agree to pay a contingency fee for the solicitation, negotiation or obtaining of the Contract to any person other than an employee acting in the normal course of the employee's duties.

- 3) All accounts and records pertaining to payments of fees or other compensation for the solicitation, obtaining or negotiation of the Contract shall be subject to the accounts and audit provisions of the Contract.
- 4) If the Contractor certifies falsely under this section or is in default of the obligations contained therein, Canada may either take the Work out of the Contractor's hands in accordance with the provisions of the Contract or recover from the Contractor by way of reduction to the Contract Amount or otherwise, the full amount of the contingency fee.

GC1.19 INTERNATIONAL SANCTIONS

- Persons and companies in Canada, and Canadians outside of Canada are bound by economic sanctions imposed by Canada. As a result, the Government of Canada cannot accept delivery of goods or services that originate, either directly or indirectly, from the countries or persons subject to <u>economic sanctions</u> (http://www.international.gc.ca/sanctions/index.aspx?lang=eng)
- 2) It is a condition of the Contract that the Contractor not supply to the Government of Canada any goods or services which are subject to economic sanctions.
- 3) By law, the Contractor must comply with changes to the regulations imposed during the life of the Contract. During the performance of the Contract should the imposition of sanctions against a country or person or the addition of a good or service to the list of sanctioned goods or services cause an impossibility of performance for the Contractor, the Contractor may request that the Contract be terminated in accordance with GC7.3 TERMINATION OF CONTRACT.

GC1.20 (2016-05-01) INTEGRITY PROVISIONS - CONTRACT

The Ineligibility and Suspension Policy (the "Policy") and all related Directives are incorporated into, and form a binding part of the Contract. The Contractor must comply with the provisions of the Policy and Directives, which can be found on Public Works and Government Services Canada's website at Ineligibility and Suspension Policy. (http://www.tpsgc-pwgsc.gc.ca/ci-if/politique-policy-eng.html).

GC1.21 (2016-05-01) CODE OF CONDUCT FOR PROCUREMENT - CONTRACT

The Contractor agrees to comply with the Code of Conduct (http://www.tpsgc-pwgsc.gc.ca/app-acq/cndt-cndct/contexte-context-eng.html) for Procurement and to be bound by its terms for the period of the Contract.

GC2 ADMINISTRATION OF THE CONTRACT

GC2.1	DEPARTMENTAL REPRESENTATIVE'S AUTHORITY
GC2.2	INTERPRETATION OF CONTRACT
GC2.3	NOTICES
GC2.4	SITE MEETINGS
GC2.5	REVIEW AND INSPECTION OF WORK
GC2.6	SUPERINTENDENT
GC2.7	NON-DISCRIMINATION IN HIRING AND EMPLOYMENT OF LABOUR
GC2.8	ACCOUNTS AND AUDITS

DEDARTMENTAL DEDDESCRITATIVES AUTHORITY

GC2.1 (2016-05-01) DEPARTMENTAL REPRESENTATIVE'S AUTHORITY

"Technical Authority" shall be recognized as the Departmental representative and designated at time of award of contract and shall perform the following:

- a) is responsible for all matters concerning the technical content of the work under the contract;
- b) authorized to issue notices, instructions, and changes within the scope of the Work, relevant to the contract.
- c) accept on behalf of Canada any notice, order or other communication from the contractor relating to the Work
- d) within a reasonable time, review and respond to submissions made by the Contractor in accordance with the requirements of the Contract

The technical authority has no authority to authorize changes to the Contract terms and conditions of the Contract.

"Contracting Authority" shall be recognized as the authority delegated by the Minister of AAFC to enter into contracts, amend the contracts and is responsible for all matters concerning and interpretation of the terms and conditions of the Contract.

The contracting authority is responsible for the management of the Contract and any changes to the Contract terms and conditions must be authorized in writing by the Contracting Authority.

GC2.2 INTERPRETATION OF CONTRACT

- If, at any time before Canada has issued a Certificate of Completion, any question arises between the parties about whether anything has been done as required by the Contract or about what the Contractor is required by the Contract to do, and in particular but without limiting the generality of the foregoing, about
 - (a) the meaning of anything in the drawings and specifications;
 - (b) the meaning to be given to the drawings and specifications in case of any error therein, omission therefrom, or obscurity or discrepancy in their wording or intention;

- (c) whether or not the quality or quantity of any Material or workmanship supplied or proposed to be supplied by the Contractor meets the requirements of the Contract:
- (d) whether or not the labour, Plant or Material performed, used and supplied by the Contractor for performing the Work and carrying out the Contract are adequate to ensure that the Work shall be performed in accordance with the Contract and that the Contract shall be carried out in accordance with its terms;
- (e) what quantity of any of the Work has been completed by the Contractor; or
- (f) the timing and scheduling of the various phases of the performance of the Work as specified in the Contract;

the question shall be decided, subject to the provisions of GC8 DISPUTE RESOLUTION, by Canada.

- 2) The Contractor shall perform the Work in accordance with any decisions of Canada that are made under paragraph 1) of GC2.2 and in accordance with any consequential directions given by Canada.
- 3) If the Contractor fails to comply with any instruction or direction issued by Canada pursuant to the Contract, Canada may employ such methods as Canada deems advisable to do what the Contractor failed to do, and the Contractor shall, on demand, pay Canada an amount that is equal to the aggregate of all costs, expenses and damages incurred or sustained by Canada by reason of the Contractor's failure to comply with such instruction or direction, including the cost of any methods employed by Canada in doing what the Contractor failed to do.

GC2.3 NOTICES

- Subject to paragraph 3) of GC2.3, any notice, order or other communication may be given in any manner, and if required to be in writing, shall be addressed to the party to whom it is intended at the address in the Contract or at the last address of which the sender has received written notice in accordance with this section.
- Any notice, order or other communication given in writing in accordance with paragraph 1) of GC2.3 shall be deemed to have been received by either party
 - (a) if delivered personally, on the day that it was delivered;
 - (b) if forwarded by mail, on the earlier of the day it was received or the sixth day after it was mailed; and
 - (c) if forwarded by facsimile or electronic mail, 24 hours after it was transmitted.
- 3) A notice given under GC7.1 TAKING THE WORK OUT OF THE CONTRACTOR'S HANDS, GC7.2 SUSPENSION OF WORK, and GC7.3 TERMINATION OF CONTRACT shall be given in writing and, if delivered personally, shall be delivered, if the Contractor is a sole proprietor, to the Contractor or, if the Contractor is a partnership or corporation, to an officer thereof.

GC2.4 (2016-05-01) SITE MEETINGS

1) In consultation with Canada, the Contractor shall arrange site meetings at regular intervals, with all involved parties who are to attend, in order to ensure, among other things, the proper co-ordination of the Work.

GC2.5 REVIEW AND INSPECTION OF WORK

- Canada shall review the Work to determine if it is proceeding in conformity with the Contract and to record the necessary data to make an assessment of the value of Work completed. Canada shall measure and record the quantities of labour, Plant and Material performed, used or supplied by the Contractor in performing the Work or any part thereof that is subject to a Unit Price Arrangement and, on request, shall inform the Contractor of those measurements, and permit the Contractor to inspect any records pertaining thereto.
- 2) Canada shall reject Work or Material which in Canada's opinion does not conform to the requirements of the Contract, and shall require inspection or testing of Work, whether or not such Work is fabricated, installed, or completed. If such Work is not in accordance with the requirements of the Contract, the Contractor shall correct the Work and shall pay Canada, on demand, all reasonable costs and expenses that were incurred by Canada in having the examination performed.
- 3) The Contractor shall provide Canada with access to the Work and its site at all times, and at all times shall provide sufficient, safe, and proper facilities for the review and inspection of the Work by persons authorized by Canada and any representatives of those authorities having jurisdiction. If parts of the Work are in preparation at locations other than the site of the Work, Canada shall be given access to such Work whenever it is in progress.
- 4) The Contractor shall furnish Canada with such information respecting the performance of the Contract as Canada may require, and render every possible assistance to enable Canada to verify that the Work is performed in accordance with the Contract, carry out any other duties and exercise any powers in accordance with the Contract.
- 5) If Work is designated for tests, inspections, or approvals in the Contract or by Canada's instructions, or by laws or ordinances of the place of the Work, the Contractor shall give Canada reasonable notice of when such Work shall be ready for review and inspection. The Contractor shall arrange for and shall give Canada reasonable notice of the date and time of inspections, tests or approvals.
- 6) If the Contractor covers, or permits to be covered, Work that has been designated for tests, inspections or approvals before such tests, inspections or approvals are made, completed or given, the Contractor shall, if so directed by Canada, uncover such Work, have the inspections, tests or approvals satisfactorily made, completed or given and make good the covering of the Work at the Contractor's expense.

GC2.6 SUPERINTENDENT

- 1) Prior to commencing the Work, the Contractor shall designate a Superintendent and shall notify Canada of the name, address and telephone number of the Superintendent. The Contractor shall keep the Superintendent at the Work site during working hours until the Work has reached completion.
- 2) The Superintendent shall be in full charge of the operations of the Contractor during the performance of the Work and shall be authorized to accept on behalf of the Contractor any notice, order or other communication given to the Superintendent or the Contractor relating to the Work.

- 3) Upon request of Canada, the Contractor shall remove any Superintendent who, in the opinion of Canada, is incompetent or has been guilty of improper conduct, and shall forthwith designate another Superintendent who is acceptable to Canada.
- 4) The Contractor shall not substitute a Superintendent without the written consent of Canada. If a Superintendent is substituted without such consent, Canada shall be entitled to refuse to issue any documentation or certification relating to progress payments, Substantial Performance or Completion of the Work until the Superintendent has returned to the Work site or another Superintendent who is acceptable to Canada has been substituted.

GC2.7 (2016-05-01) NON-DISCRIMINATION IN HIRING AND EMPLOYMENT OF LABOUR

- For the purposes of this clause, "persons" include the Contractor, its subcontractors and suppliers at any tier and their respective employees, agents, licensees or invitees and any other individual involved in the performance of the Work or granted access to the Work site. A "person" includes any partnership, proprietorship, firm, joint venture, consortium and corporation.
- 2) Without restricting the provisions of paragraph 3) of GC2.6, "Superintendent", the Contractor shall not refuse to employ and shall not discriminate in any manner against any person because
 - a) of that person's race, national or ethnic origin, colour, religion, age, sex, sexual orientation, marital status, disability, conviction for which a pardon has been granted, or family status;
 - b) of the race, national or ethnic origin, colour, religion, age, sex, sexual orientation, marital status, disability, conviction for which a pardon has been granted, or family status of any person having a relationship or association with that person, or
 - c) a complaint has been made or information has been given in respect of that person relating to an alleged failure by the Contractor to comply with subparagraph (a) or (b).
- 3) Within two working days immediately following receipt of a written complaint pursuant to paragraph 2) of GC2.7, the Contractor shall
 - a) cause to have issued a written direction to the person or persons named by the complainant to cease all actions that form the basis of the complaint;
 - b) forward a copy of the complaint to Canada by registered mail or courier service.
- 4) Within 24 hours immediately following receipt of a direction from Canada to do so, the Contractor shall cause to have removed from the site of the Work and from the performance of Work under the Contract, any person or persons whom Canada believes to be in breach of the provisions of paragraph 2) of GC2.7.
- 5) No later than 30 days after receipt of the direction referred to in paragraph 4) of GC2.7, the Contractor shall cause the necessary action to be commenced to remedy the breach described in the direction.
- 6) If a direction is issued pursuant to paragraph 4) of GC2.7, Canada may withhold from monies that are due and payable to the Contractor or setoff pursuant to GC5.9, "Right of Setoff", whichever is applicable, an amount representing the sum of the costs and payment referred to in paragraph 8) of GC2.7.

- 7) If the Contractor fails to proceed in accordance with paragraph 5) of GC2.7, Canada shall take the necessary action to have the breach remedied, and shall determine all supplementary costs incurred by Canada as a result.
- 8) Canada may make a payment directly to the complainant from monies that are due and payable to the Contractor upon receipt from the complainant of
 - a) a written award issued pursuant to the federal **Commercial Arbitration Act**, R.S. 1985, c. 17 (2nd Supp.);
 - b) a written award issued pursuant to the **Canadian Human Rights Act**, R.S. 1985, c. H-6;
 - c) a written award issued pursuant to provincial or territorial human rights legislation; or
 - d) a judgement issued by a court of competent jurisdiction.
- 9) If Canada is of the opinion that the Contractor has breached any of the provisions of this clause, Canada may take the Work out of the Contractor's hands pursuant to GC7.1, "Taking the Work out of the Contractor's Hands".
- 10) Subject to paragraph 7) of GC3.6, "Subcontracting", the Contractor shall ensure that the provisions of this clause are included in all agreements and contracts entered into as a consequence of the Work.

GC2.8 (2016-05-01) ACCOUNTS AND AUDITS

- The Contractor shall, in addition to the requirements expressed in paragraph 6) of GC3.4, "Execution of the Work", maintain full records of the Contractor's estimated and actual cost of the Work together with all tender calls, quotations, contracts, correspondence, invoices, receipts and vouchers relating thereto, and shall make them available on request to audit and inspection by Canada and the Deputy Receiver General for Canada or by persons designated to act on behalf of either or both of them.
- 2) The Contractor shall allow any of the persons referred to in paragraph 1) of GC2.8 to make copies of and take extracts from any of the records and material, and shall furnish such persons or entities with any information those persons or entities may require from time to time in connection with such records and material.
- 3) The Contractor shall maintain and keep the records intact until the expiration of six (6) years after the date that a Certificate of Completion has been issued or until the expiration of such other period of time as Canada may direct.
- 4) The Contractor shall cause all subcontractors at any tier and all other persons directly or indirectly controlled by or affiliated with the Contractor and all persons directly or indirectly having control of the Contractor to comply with the requirements of this clause as if they were the Contractor.

GC3 EXECUTION AND CONTROL OF THE WORK

GC3.1	PROGRESS SCHEDULE
GC3.2	ERRORS AND OMISSIONS
GC3.3	CONSTRUCTION SAFETY
GC3.4	EXECUTION OF THE WORK
GC3.5	MATERIAL
GC3.6	SUBCONTRACTING
GC3.7	CONSTRUCTION BY OTHER CONTRACTORS OR WORKERS
GC3.8	LABOUR
GC3.9	TRUCK HAULAGE RATES (CANCELLED)
GC3.10	MATERIAL, PLANT AND REAL PROPERTY BECOME PROPERTY OF CANADA
GC3.11	DEFECTIVE WORK
GC3 12	CLEANUP OF SITE

GC3.13 WARRANTY AND RECTIFICATION OF DEFECTS IN WORK

GC3.1 (2016-05-01) PROGRESS SCHEDULE

The Contractor shall

- a) prepare and submit to Canada, prior to the submission of the Contractor's first progress claim, a progress schedule in accordance with the requirements set out in the Contract;
- b) monitor the progress of the Work relative to the schedule and update the schedule as stipulated by the contract documents;
- c) advise Canada of any revisions to the schedule required as the result of any extension of time for completion of the Contract that was approved by Canada; and
- d) prepare and submit to Canada, at the time of issuance of a Certificate of Substantial Performance, an update of any schedule clearly showing a detailed timetable that is acceptable to Canada for the completion of any unfinished Work and the correction of all listed defects.

GC3.2 (2016-05-01) ERRORS AND OMISSIONS

The Contractor shall report promptly to Canada any errors, discrepancies, or omissions the Contractor may discover when reviewing the contract documents. In making a review, the Contractor does not assume any responsibility to Canada for the accuracy of the review. The Contractor shall not be liable for damage or costs resulting from such errors, discrepancies, or omissions in the contract documents prepared by or on behalf of Canada that the Contractor did not discover.

GC3.3 CONSTRUCTION SAFETY

 Subject to GC3.7 CONSTRUCTION BY OTHER CONTRACTORS OR WORKERS, the Contractor shall be solely responsible for construction safety at the place of the Work and for initiating, maintaining and supervising all safety precautions and programs in connection with the performance of the Work. In any emergency, the Contractor shall either stop the Work,

- make changes or order extra work to ensure the safety of life and the protection of the Work and neighbouring property.
- 2) Prior to commencing the Work, the Contractor shall notify the authorities having jurisdiction for construction safety at the site of the Work with respect to the intended commencement of the Work, and shall provide such authority with whatever additional information may be required by that authority.

GC3.4 EXECUTION OF THE WORK

- The Contractor shall perform, use or supply and pay for, all labour, Plant, Material, tools, construction machinery and equipment, water, heat, light, power, transportation and other facilities and services necessary for the performance of the Work in accordance with the Contract.
- 2) The Contractor shall, at all times, perform the Work in a proper, diligent and expeditious manner as is consistent with construction industry standards and in accordance with the progress schedule prepared pursuant to GC3.1 PROGRESS SCHEDULE and shall provide sufficient personnel to fulfil the Contractor's obligations in accordance with that schedule.
- 3) Subject to paragraph 4) of GC3.4, the Contractor shall have complete care, custody and control of the Work and shall direct and supervise the Work so as to ensure compliance with the Contract. The Contractor shall be responsible for construction means, methods, techniques, sequences and procedures and for co-ordinating the various parts of the Work.
- 4) When requested in writing by Canada, the Contractor shall make appropriate alterations in the method, Plant or workforce at any time Canada considers the Contractor's actions to be unsafe or damaging to either the Work, existing facilities, persons at the site of the Work or the environment.
- 5) The Contractor shall have sole responsibility for the design, erection, operation, maintenance and removal of temporary structures and other temporary facilities and for the construction methods used in their erection, operation, maintenance and removal. The Contractor shall engage and pay for registered professional engineering personnel, skilled in the appropriate discipline to perform these functions if required by law or by the Contract, and in all cases when such temporary facilities and their methods of construction are of such a nature that professional engineering skill is required to produce safe and satisfactory results.
- 6) The Contractor shall keep at least one copy of current contract documents, submittals, reports, and records of meetings at the site of the Work, in good order and available to Canada.
- 7) Except for any part of the Work that is necessarily performed away from or off the site of the Work, the Contractor shall confine Plant, storage of Material, and operations of employees to limits indicated by laws, ordinances, permits or the contract documents.

GC3.5 MATERIAL

- Unless otherwise specified in the Contract, all Material incorporated in the Work shall be new.
- Subject to paragraph 3) of GC3.5, if a specified reused, refurbished, or recycled item of Material is not available, the Contractor shall apply to Canada to substitute a similar item for the one specified.

- 3) If Canada agrees that the Contractor's application for substitution of a reused, refurbished or recycled item is warranted, and that the substitute item is of acceptable quality and value to that specified and is suitable for the intended purpose, Canada may approve the substitution, subject to the following:
 - (a) the request for substitution shall be made in writing to Canada and shall be substantiated by information in the form of the manufacturer's literature, samples and other data that may be required by Canada;
 - (b) the Contractor shall make the request for substitution in a manner that shall not negatively affect the progress schedule of the Contract and well in advance of the time the item of Material must be ordered:
 - (c) substitution of Material shall be permitted only with the prior written approval of Canada, and any substituted items that are supplied or installed without such approval shall be removed from the site of the Work at the expense of the Contractor, and specified items installed at no additional cost to Canada; and
 - (d) the Contractor shall be responsible for all additional expenses incurred by Canada, the Contractor, its subcontractors and suppliers at any tier due to the Contractor's use of the substitute.

GC3.6 SUBCONTRACTING

- Subject to the provisions of this clause, the Contractor may subcontract any part of the Work but not the whole of the Work.
- 2) The Contractor shall notify Canada in writing of the Contractor's intention to subcontract.
- 3) A notification referred to in paragraph 2) of GC3.6 shall identify the part of the Work and the Subcontractor with whom the Contractor intends to subcontract.
- 4) Canada may for reasonable cause, object to the intended subcontracting by notifying the Contractor in writing within six (6) days of receipt by Canada of a notification referred to in paragraph 2) of GC3.6.
- If Canada objects to a subcontracting, the Contractor shall not enter into the intended subcontract.
- 6) The Contractor shall not change, nor permit to be changed, a Subcontractor engaged by the Contractor, in accordance with this clause, without the written consent of Canada.
- 7) The Contractor shall ensure that all the terms and conditions of the Contract that are of general application shall be incorporated in every other contract issued as a consequence of the Contract, at whatever tier, except those contracts issued solely to suppliers at any tier for the supply of Plant or Material.
- 8) Neither a subcontracting nor Canada's consent to a subcontracting shall be construed to relieve the Contractor from any obligation under the Contract or to impose any liability upon Canada.

GC3.7 CONSTRUCTION BY OTHER CONTRACTORS OR WORKERS

- Canada reserves the right to send other contractors or workers, with or without Plant and Material, onto the site of the Work.
- 2) When other contractors or workers are sent on to the site of the Work, Canada shall
 - (a) enter into separate contracts, to the extent it is possible, with the other contractors under conditions of contract that are compatible with the conditions of the Contract;
 - (b) ensure that the insurance coverage provided by the other contractors is co-ordinated with the insurance coverage of the Contractor as it affects the Work; and
 - (c) take all reasonable precautions to avoid labour disputes or other disputes arising from the work of the other contractors or workers.
- 3) When other contractors or workers are sent on to the site of the Work, the Contractor shall
 - (a) co-operate with them in the carrying out of their duties and obligations;
 - (b) co-ordinate and schedule the Work with the work of the other contractors and workers;
 - (c) participate with other contractors and workers in reviewing their construction schedules when directed to do so:
 - (d) where part of the Work is affected by or depends upon the work of other contractors or workers for its proper execution, promptly report to Canada in writing and prior to proceeding with that part of the Work, any apparent deficiencies in such work. Failure by the Contractor to so report shall invalidate any claims against Canada by reason of the deficiencies in the work of other contractors or workers except those deficiencies that are not then reasonably discoverable; and
 - (e) when designated as being responsible for construction safety at the place of work in accordance with the applicable provincial or territorial laws, carry out its duties in that role and in accordance with those laws.
- 4) If, when entering into the Contract, the Contractor could not have reasonably foreseen nor anticipated the sending of other contractors or workers on to the site of the Work and provided the Contractor
 - (a) incurs extra expense in complying with the requirements of paragraph 3) of GC3.7; and
 - (b) gives Canada written notice of a claim for that extra expense within thirty (30) days of the date that the other contractors or workers were sent onto the Work or its site;

Canada shall pay the Contractor the cost of the extra labour, Plant and Material that was necessarily incurred, calculated in accordance with GC6.4 DETERMINATION OF PRICE.

GC3.8 LABOUR

To the extent to which they are available, consistent with proper economy and the
expeditious carrying out of the Work, the Contractor shall, in the performance of the Work,
employ a reasonable number of persons who have been on active service with the Armed
Forces of Canada and have been honourably discharged therefrom.

2) The Contractor shall maintain good order and discipline among the Contractor's employees and workers engaged in the Work and shall not employ on the site of the Work anyone not skilled in the tasks assigned.

GC3.9 TRUCK HAULAGE RATES

CANCELLED

GC3.10 MATERIAL, PLANT AND REAL PROPERTY BECOME PROPERTY OF CANADA

- Subject to paragraph 9) of GC1.8 LAWS PERMITS AND TAXES, all Material and Plant and the interest of the Contractor in all real property, licences, powers and privileges purchased, used or consumed by the Contractor for the Work shall, immediately after the time of their purchase, use or consumption be the property of Canada for the purposes of the Work and they shall continue to be the property of Canada
 - (a) in the case of Material, until Canada indicates that the Materials shall not be required for the Work; and
 - (b) in the case of Plant, real property, licences, powers and privileges, until Canada indicates that the interest vested in Canada therein is no longer required for the purposes of the Work.
- 2) Material or Plant, that is the property of Canada by virtue of paragraph 1) of GC3.10, shall not be taken away from the site of the Work nor used nor disposed of except for the purposes of the Work without the written consent of Canada.
- 3) Canada is not liable for loss of nor damage from any cause to the Material or Plant referred to in paragraph 1) of GC3.10, and the Contractor is liable for such loss or damage notwithstanding that the Material or Plant is the property of Canada.

GC3.11 DEFECTIVE WORK

- 1) The Contractor shall promptly remove from the site of the Work and replace or re-execute defective Work whether or not the defective Work has been incorporated in the Work and whether or not the defect is the result of poor workmanship, use of defective Material, or damage through carelessness or other act or omission of the Contractor.
- 2) The Contractor, at the Contractor's expense, shall promptly make good other work destroyed or damaged by such removals or replacements.
- 3) If, in the opinion of Canada, it is not expedient to correct defective Work or Work not performed as provided for in the Contract documents, Canada may deduct from the amount otherwise due to the Contractor the difference in value between the Work as performed and that called for by the contract documents.
- 4) The failure of Canada to reject any defective Work or Material shall not constitute acceptance of the defective Work or Material.

GC3.12 CLEANUP OF SITE

- The Contractor shall maintain the Work and its site in a tidy condition and free from an accumulation of waste material and debris.
- 2) Before the issue of a Certificate of Substantial Performance, the Contractor shall remove waste material and debris, and all Plant and Material not required for the performance of the remaining Work and, unless otherwise stipulated in the Contract Documents, shall cause the Work and its site to be clean and suitable for occupancy by Canada.
- 3) Before the issue of a Certificate of Completion, the Contractor shall remove all surplus Plant and Materials and any waste products and debris from the site of the Work.
- 4) The Contractor's obligations described in paragraphs 1) to 3) of GC3.12 do not extend to waste products and other debris caused by Canada's servants, or by other contractors and workers referred to in GC3.7 CONSTRUCTION BY OTHER CONTRACTORS OR WORKERS.

GC3.13 WARRANTY AND RECTIFICATION OF DEFECTS IN WORK

- Without restricting any warranty or guarantee implied or imposed by law or contained in the Contract, the Contractor shall, at the Contractor's expense
 - (a) rectify and make good any defect or fault that appears in the Work or comes to the attention of Canada with respect to those parts of the Work accepted in connection with the Certificate of Substantial Performance within 12 months from the date of Substantial Performance; and
 - (b) rectify and make good any defect or fault that appears in or comes to the attention of Canada in connection with those parts of the Work described in the Certificate of Substantial Performance within 12 months from the date of the Certificate of Completion.
 - (c) transfer and assign, to Canada, any subcontractor, manufacturer or supplier extended warranties or guarantees implied or imposed by law or contained in the Contract covering periods beyond the 12 months stipulated above. Extended warranties or guarantees referred to herein shall not extend the 12-month period whereby the Contractor, except as may be provided elsewhere in the Contract, must rectify and make good any defect or fault that appears in the Work or comes to the attention of Canada.
 - (d) provide, to Canada prior to the issuance of the Certificate of Completion, a list of all extended warranties and guarantees referred to in paragraph (c) above.
- 2) Canada may direct the Contractor to rectify and make good any defect or fault referred to in paragraph 1) of GC3.13 or covered by any other expressed or implied warranty or guarantee and the Contractor shall rectify and make good such defect within the time stipulated in the direction.
- 3) A direction referred to in paragraph 2) GC3.13 shall be in writing and shall be given to the Contractor in accordance with GC2.3 NOTICES.

GC4 PROTECTIVE MEASURES

- GC4.1 PROTECTION OF WORK AND PROPERTY
- GC4.2 PRECAUTIONS AGAINST DAMAGE, INFRINGEMENT OF RIGHTS, FIRE AND OTHER HAZARDS
- GC4.3 MATERIAL, PLANT AND REAL PROPERTY SUPPLIED BY CANADA
- GC4.4 CONTAMINATED SITE CONDITIONS

GC4.1 PROTECTION OF WORK AND PROPERTY

- The Contractor shall protect the Work and its site against loss or damage from any cause and shall similarly protect all Material, Plant and real property under the Contractor's care, custody and control whether or not such Material, Plant and real property are supplied by Canada to the Contractor.
- 2) The Contractor shall provide all facilities necessary for the purpose of maintaining security, and shall assist any person authorized by Canada to inspect or to take security measures in respect of the Work and its site.
- 3) Canada may direct the Contractor to do such things and to perform such work as Canada considers reasonable and necessary to ensure compliance with or to remedy a breach of paragraphs 1) or 2) of GC4.1, and the Contractor, shall comply with such direction.

GC4.2 PRECAUTIONS AGAINST DAMAGE, INFRINGEMENT OF RIGHTS, FIRE AND OTHER HAZARDS

- 1) The Contractor shall do whatever is necessary to ensure that
 - (a) no person, property, right, easement nor privilege is injured, damaged or infringed upon by reasons of the Contractor's activities in performing the Work;
 - (b) pedestrian and other traffic on any public or private road or waterway is not unduly impeded, interrupted nor endangered by the performance or existence of the Work, Material or Plant:
 - (c) fire hazards in or about the site of the Work are eliminated and any fire is promptly extinguished;
 - (d) the health and safety of all persons employed in the performance of the Work is not endangered by the methods nor means of their performance;
 - (e) adequate medical services are available to all persons employed on the Work or its site at all times during the performance of the Work;
 - (f) adequate sanitation measures are taken in respect of the Work and its site; and
 - (g) all stakes, buoys and marks placed on the Work or its site by Canada are protected and are not removed, defaced, altered nor destroyed.
- 2) Canada may direct the Contractor to do such things and to perform such work as Canada considers reasonable and necessary to ensure compliance with or to remedy a breach of paragraph 1) of GC4.2, and the Contractor shall comply with the direction of Canada.

GC4.3 MATERIAL, PLANT AND REAL PROPERTY SUPPLIED BY CANADA

- Subject to paragraph 2) of GC4.3, the Contractor is liable to Canada for any loss of or damage to Material, Plant or real property that is supplied or placed in the care, custody and control of the Contractor by Canada for use in connection with the Contract, whether or not that loss or damage is attributable to causes beyond the Contractor's control.
- 2) The Contractor is not liable to Canada for any loss or damage to Material, Plant or real property referred to in paragraph 1) of GC4.3 if that loss or damage results from and is directly attributable to reasonable wear and tear.
- 3) The Contractor shall not use any Material, Plant or real property supplied by Canada except for the purpose of performing the Contract.
- When the Contractor fails to make good any loss or damage for which the Contractor is liable under paragraph 1) within a reasonable time, Canada may cause the loss or damage to be made good at the Contractor's expense, and the Contractor shall thereupon be liable to Canada for the cost thereof and shall, on demand, pay to Canada an amount equal to that cost.
- 5) The Contractor shall keep records of all Material, Plant and real property supplied by Canada as Canada requires and shall satisfy Canada, when requested, that such Material, Plant and real property are at the place and in the condition in which they ought to be.

GC4.4 CONTAMINATED SITE CONDITIONS

- For the purposes of GC4.4, a contaminated site condition exists when a solid, liquid, gaseous, thermal or radioactive irritant or contaminant, or other hazardous or toxic substance or material, including moulds and other forms of fungi, is present at the site of the Work to an extent that constitutes a hazard, or potential hazard, to the environment, property, or the health or safety of any person.
- 2) If the Contractor encounters a contaminated site condition of which the Contractor is not aware or about which the Contractor has not been advised, or if the Contractor has reasonable grounds to believe that such a site condition exists at the site of the Work, the Contractor shall
 - (a) take all reasonable steps, including stopping the Work, to ensure that no person suffers injury, sickness or death, and that neither property nor the environment is injured or destroyed as a result of the contaminated site condition;
 - (b) immediately notify Canada of the circumstances in writing; and
 - (c) take all reasonable steps to minimize additional costs that may accrue as a result of any work stoppage.
- 3) Upon receipt of a notification from the Contractor, Canada shall promptly determine whether a contaminated site condition exists, and shall notify the Contractor in writing of any action to be taken, or work to be performed, by the Contractor as a result of Canada's determination.
- 4) If the Contractor's services are required by Canada, the Contractor shall follow the direction of Canada with regard to any excavation, treatment, removal and disposal of any polluting substance or material.

- 5) Canada, at Canada's sole discretion, may enlist the services of experts and specialty contractors to assist in determining the existence of, and the extent and treatment of contaminated site conditions, and the Contractor shall allow them access and co-operate with them in the carrying out of their duties and obligations.
- 6) Except as may be otherwise provided for in the Contract, the provisions of GC6.4 DETERMINATION OF PRICE shall apply to any additional work made necessary because of a contaminated site condition.

GC5.13 RETURN OF SECURITY DEPOSIT

GC5 TERMS OF PAYMENT

INTERPRETATION

GC5.1	INTERPRETATION
GC5.2	AMOUNT PAYABLE
GC5.3	INCREASED OR DECREASED COSTS
GC5.4	PROGRESS PAYMENT
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GC5.11	DELAY IN MAKING PAYMENT
GC5.12	INTEREST ON SETTLED CLAIMS

GC5.1 INTERPRETATION

In these Terms of Payment

- The "payment period" means a period of 30 consecutive days or such other longer period as may be agreed between the Contractor and Canada.
- 2) An amount is "due and payable" when it is due and payable by Canada to the Contractor according to GC5.4 PROGRESS PAYMENT, GC5.5 SUBSTANTIAL PERFORMANCE OF THE WORK or GC5.6 FINAL COMPLETION.
- 3) An amount is "overdue" when it remains unpaid on the first day following the day upon which it is due and payable.
- 4) The "date of payment" means the date of the negotiable instrument of an amount due and payable by the Receiver General for Canada.
- 5) The "Bank Rate" means the rate of interest established by the Bank of Canada as the minimum rate at which it makes short term advances to members of the Canadian Payments Association.
- 6) The "Average Bank Rate" means the simple arithmetic mean of the Bank Rate in effect at 4:00 p.m. Eastern Time each day during the calendar month which immediately precedes the calendar month in which payment is made.

GC5.2 AMOUNT PAYABLE

- Subject to any other provisions of the Contract, Canada shall pay the Contractor, at the times and in the manner hereinafter set out, the amount by which the amounts payable by Canada to the Contractor in accordance with the Contract exceed the amounts payable by the Contractor to Canada, and the Contractor shall accept that amount as payment in full satisfaction for everything furnished and done by the Contractor in respect of the Work to which the payment relates.
- When making any payment to the Contractor, the failure of Canada to deduct an amount payable to Canada by the Contractor shall not constitute a waiver of the right to do so, or an admission of lack of entitlement to do so in any subsequent payment to the Contractor.

- 3) Should any payment be made by Canada in excess of what is owed to the Contractor for the actual work performed, the Contractor will reimburse Canada the excess immediately, with or without demand, and any amounts outstanding shall bear simple interest at the Average Bank rate plus 3 percent per annum from the date of overpayment until the day prior to the date of repayment by the Contractor.
- 4) No payment other than a payment that is expressly stipulated in the Contract shall be made by Canada to the Contractor for any extra expense or any loss or damage incurred or sustained by the Contractor.

GC5.3 (2016-05-01) INCREASED OR DECREASED COSTS

- 1. The Contract Amount shall not be increased nor decreased by reason of any increase or decrease in the cost of the Work that is brought about by an increase or decrease in the cost of labour, Plant, Material or any wage adjustment.
- Notwithstanding paragraph 1) of GC5.3, if any change, including a new imposition or repeal, of any tax, customs or other duty, charge, or any similar imposition that is imposed under sales, customs or excise tax legislation of the Government of Canada or any Provincial or Territorial legislation, affects the cost of the Work to the Contractor, and occurs
 - a) after the date of submission by the Contractor of its bid; or
 - b) after the date of submission of the last revision, if the Contractor's bid was revised;
 - the Contract Amount shall be adjusted in the manner provided in paragraph 3) of GC5.3.
- 3. If a change referred to in paragraph 2) of GC5.3 occurs, the Contract Amount shall be increased or decreased by an amount established by an examination by Canada of the relevant records of the Contractor referred to in GC2.8, "Accounts and Audits", to be the increase or decrease in the cost incurred by the Contractor that is directly attributable to that change.
- 4. For the purpose of paragraph 2) of GC5.3, if a tax is changed after the tender closing, but public notice of the change has been given by the Minister of Finance or the corresponding Provincial or Territorial authority before that closing, the change shall be deemed to have occurred before the solicitation closing.
- 5. Notwithstanding paragraphs 2) to 4) of GC5.3, no adjustment to the Contract Amount in respect of the Work or a part thereof shall be made for a change in any imposition referred to in this section that occurs after the date required by the Contract for completion of the Work or that part of the Work.

GC5.4 (2016-05-01) PROGRESS PAYMENT

- 1) On the expiration of a payment period, the Contractor shall deliver to Canada
 - a written progress claim in a form acceptable to Canada that fully describes any part of the Work that has been completed, and any Material that was delivered to the Work site but not incorporated into the Work, during that payment period, and

- b) a completed and signed statutory declaration containing a declaration that, up to the date of the progress claim, the Contractor has complied with all lawful obligations and that, in respect of the Work, all lawful obligations of the Contractor to its Subcontractors and Suppliers, referred to collectively in the declaration as " subcontractors and suppliers", have been fully discharged.
- Within 10 days of receipt of a progress claim and statutory declaration from the Contractor, Canada shall inspect, or cause to have inspected, the part of the Work and the Material described in the progress claim, and shall issue a progress report to the Contractor, that indicates the value of the part of the Work and the Material described in the progress claim that, in the opinion of Canada
 - a) is in accordance with the Contract; and
 - b) was not included in any other progress report relating to the Contract.
- 3) Subject to GC5.2, "Amount Payable", and paragraph 5) of GC5.4, Canada shall pay the Contractor an amount that is equal to
 - a) 95 percent of the value that is indicated in Canada's progress report if a labour and material payment bond has been furnished by the Contractor; or
 - b) 90 percent of the value that is indicated in Canada's progress report if a labour and material payment bond has not been furnished by the Contractor.
- 4) Canada shall pay the amount referred to in paragraph 3) of GC5.4 not later than
 - a) 30 days after receipt by Canada of both a progress claim and a statutory declaration referred to in paragraph 1) of GC5.4; or
 - b) 15 days after receipt by Canada of the Contractor's progress schedule or updated progress schedule, in accordance with GC3.1, "Progress Schedule",

whichever is later.

5) In the case of the Contractor's first progress claim, it is a condition precedent to Canada's obligation under paragraph 3) of GC5.4 that the Contractor has provided all necessary documentation required by the Contract for the first progress claim.

GC5.5 (2016-05-01) SUBSTANTIAL PERFORMANCE OF THE WORK

- 1. If, at any time before the issuance of a Certificate of Completion, Canada determines that the Work has reached Substantial Performance as described in subparagraph 1) (b) of GC1.1.4, "Substantial Performance", Canada shall issue a Certificate of Substantial Performance to the Contractor. The Certificate of Substantial Performance shall state or describe
 - a) the date of Substantial Performance;
 - b) the parts of the Work not completed to the satisfaction of Canada; and
 - c) all things that must be done by the Contractor before a Certificate of Completion is issued and before the 12-month warranty period referred to in GC3.13, "Warranty and Rectification of Defects in Work", commences for the said parts and all the said things.

- 2. The issuance of a Certificate of Substantial Performance does not relieve the Contractor from the Contractor's obligations under GC3.11, "Defective Work".
- Subject to GC5.2, "Amount Payable", and paragraph 4) of GC5.5, Canada shall pay the Contractor the amount referred to in paragraph 1) of GC5.2, "Amount Payable", less the aggregate of
 - a) the sum of all payments that were made pursuant to GC5.4, "Progress Payment";
 - an amount that is equal to Canada's estimate of the cost to Canada of rectifying defects described in the Certificate of Substantial Performance; and
 - an amount that is equal to Canada's estimate of the cost to Canada of completing the parts of the Work described in the Certificate of Substantial Performance other than defects listed therein.
- 4. Canada shall pay the amount referred to in paragraph 3) of GC5.5 not later than
 - a) 30 days after the date of issue of a Certificate of Substantial Performance, or
 - b) 15 days after the Contractor has delivered to Canada
 - a statutory declaration containing a declaration by the Contractor that up to the date of the Certificate of Substantial Performance, the Contractor has complied with all lawful obligations, discharged all its lawful obligations to its Subcontractors and Suppliers in respect of the work under the Contract, and discharged its lawful obligations referred to in GC1.8, "Laws, Permits and Taxes";
 - II. evidence of compliance with workers' compensation legislation in accordance with GC1.9, "Workers' Compensation"; and
 - III. an update of the progress schedule in accordance with the requirements of GC3.1, "Progress Schedule"; whichever is later.

GC5.6 FINAL COMPLETION

- When Canada is of the opinion that the Contractor has complied with the Contract and all orders and directions made pursuant thereto, and that the Work has been completed as described in GC1.1.5 COMPLETION, Canada shall issue a Certificate of Completion to the Contractor and, if the Work or a portion of the Work is subject to a Unit Price Arrangement, Canada shall issue a Certificate of Measurement that shall, subject to GC8, be binding upon and conclusive between Canada and the Contractor as to the quantities referred to therein.
- 2) Subject to GC5.2 AMOUNT PAYABLE and paragraph 3) of GC5.6, Canada shall pay the Contractor the amount referred to in GC5.2 AMOUNT PAYABLE, less the aggregate of the sum of all payments that were made pursuant to GC5.4 PROGRESS PAYMENT and GC5.5 SUBSTANTIAL PERFORMANCE OF WORK.
- 3) Canada shall pay the amount referred to in paragraph 2) of GC5.6 not later than
 - (a) 60 days after the date of issue of a Certificate of Completion; or
 - (b) 15 days after the Contractor has delivered to Canada

- a statutory declaration which contains a declaration by the Contractor that all of the Contractor's lawful obligations and any lawful claims against the Contractor that arose out of the performance of the Contract have been discharged and satisfied; and
- (ii) evidence of compliance with workers' compensation legislation in accordance with GC1.9 WORKERS' COMPENSATION;

whichever is later.

GC5.7 (2016-05-01) PAYMENT NOT BINDING ON CANADA

 Neither acceptance of a progress claim or progress report, nor any payment made by Canada under the Contract, nor partial or entire use or occupancy of the Work by Canada shall constitute an acceptance by Canada of any portion of the Work or Material that is not in accordance with the requirements of the Contract.

GC5.8 CLAIMS AND OBLIGATIONS

- The Contractor shall discharge all the Contractor's lawful obligations and shall satisfy all lawful claims against the Contractor arising out of the performance of the Work at least as often as the Contract requires Canada to pay the Contractor.
- 2) Whenever requested to do so by Canada, the Contractor shall make a statutory declaration declaring to the existence and condition of any obligations and claims against the Contractor arising out of the performance of the Work.
- 3) In order to discharge lawful obligations of and satisfy lawful claims against the Contractor or its Subcontractors arising out of the performance of the Contract, Canada may pay an amount that is due and payable to the Contractor directly to the claimant. Such payment is, to the extent of the payment, a discharge of Canada's liability to the Contractor under the Contract and may be deducted from any amount payable to the Contractor under the Contract.
- 4) For the purposes of paragraph 3) of GC5.8, and subject to paragraph 6) of GC5.8, a claim or obligation shall be considered lawful when it is so determined by
 - (a) a court of legal jurisdiction;
 - (b) an arbitrator duly appointed to arbitrate the claim; or
 - (c) the written consent of the Contractor authorizing payment of the claim or obligation.
- 5) If a claim or obligation would have been subject to the provisions of Provincial or Territorial lien legislation or, in the Province of Quebec, the law relating to legal hypothecs had the Contractor been performing the Work for an entity other than Canada
 - (a) such amount as may be paid by Canada pursuant to paragraphs 3) and 4) of GC5.8 shall not exceed the amount that the Contractor would have been obliged to pay had the provisions of such legislation or law been applicable to the Work;
 - (b) a claimant need not comply with the provisions of such legislation, setting out the steps by way of notice, registration or otherwise as might have been necessary to preserve or perfect any claim for lien or privilege which the claimant might have had; and

- (c) for the purposes of determining the entitlement of a claimant, the notice required by paragraph 8) of GC5.8 shall be deemed to replace the registration or provision of notice after the performance of work as required by any applicable legislation and no claim shall be deemed to have expired, become void or unenforceable by reason of the claimant not commencing any action within the time prescribed by such legislation.
- 6) The Contractor shall, at the request of any claimant, submit to binding arbitration those questions that need to be answered to establish the entitlement of the claimant to payment. The arbitration shall have as parties to it any Subcontractor or Supplier to whom the claimant supplied Material, performed work or rented equipment should such Subcontractor or Supplier wish to be adjoined, and Canada shall not be a party to such arbitration. Subject to any agreement between the Contractor and the claimant, the arbitration shall be conducted in accordance with the governing Provincial or Territorial legislation applicable to the site of the Work.
- 7) Paragraph 3) of GC5.8 shall apply only to claims and obligations
 - (a) the notification of which has set forth the amount claimed to be owing and the person who by contract is primarily liable and has been received by Canada in writing before final payment is made to the Contractor pursuant to GC5.6 FINAL COMPLETION, and within 120 days of the date on which the claimant
 - (i) should have been paid in full under the claimant's contract with the Contractor, its Subcontractor or Supplier if the claim is for money that was lawfully required to be held back from the claimant; or
 - (ii) performed the last of the services, work or labour, or furnished the last of the Material pursuant to the claimant's contract with the Contractor or its Subcontractor or Supplier where the claim is for money not lawfully required to be held back from the claimant; and
 - (b) the proceedings to determine the right to payment of which, pursuant to paragraph 5) of GC5.8, shall have commenced within one year from the date that the notification required by subparagraph 7)(a) of GC5.8 was received by Canada.
- 8) Upon receipt of a notice of claim, Canada may withhold, from any amount that is due and payable to the Contractor pursuant to the Contract, the full amount of the claim or any portion thereof.
- 9) Canada shall notify the Contractor in writing in a timely manner of receipt of any claim and of the intention of Canada to withhold funds. At any time thereafter and until payment is made to the claimant, the Contractor may be entitled to post, with Canada, security in a form acceptable to Canada in an amount equal to the value of the claim, and upon receipt of such security Canada shall release to the Contractor any funds that would be otherwise payable to the Contractor, that were withheld pursuant to the provisions of this clause in respect of the claim of any claimant for whom the security stands.

GC5.9 RIGHT OF SETOFF

Without limiting any right of setoff or deduction given or implied by law or elsewhere in the Contract, Canada may set off any amount payable to Canada by the Contractor under the Contract, or under any current contract, against any amount payable to the Contractor under the Contract.

- 2) For the purposes of paragraph 1) of GC5.9, "current contract" means a contract between Canada and the Contractor
 - (a) under which the Contractor has an undischarged obligation to perform or supply work, labour or material; or
 - (b) in respect of which Canada has, since the date of the Contract, exercised any right to take the work that is the subject of that contract out of the Contractor's hands.

GC5.10 ASSESSMENTS AND DAMAGES FOR LATE COMPLETION

- 1) For the purposes of this clause
 - the Work shall be deemed to be completed on the date of the Certificate of Completion;
 and
 - (b) the "period of delay" means the number of days commencing on the day fixed for completion of the Work and ending on the day immediately preceding the day on which the Work is completed but does not include any day within a period of extension granted pursuant to GC6.5 DELAYS AND EXTENSION OF TIME and any other day on which, in the opinion of Canada, completion of the Work was delayed for reasons beyond the control of the Contractor.
- If the Contractor does not complete the Work by the day fixed for its completion but completes it thereafter, the Contractor shall pay Canada an amount equal to the aggregate of
 - (a) all salaries, wages and travelling expenses incurred by Canada in respect of persons overseeing the performance of the Work during the period of delay;
 - (b) the cost incurred by Canada as a result of the inability to use the completed Work for the period of delay; and
 - (c) all other expenses and damages incurred or sustained by Canada during the period of delay as a result of the Work not being completed by the day fixed for its completion.
- 3) Canada may waive the right of Canada to the whole or any part of the amount payable by the Contractor pursuant to paragraph 2) of GC5.10 if, in the opinion of Canada, it is in the public interest to do so.

GC5.11 DELAY IN MAKING PAYMENT

- 1) Notwithstanding GC1.5 TIME OF THE ESSENCE, any delay by Canada in making any payment when it is due pursuant to GC5 TERMS OF PAYMENT, shall not be a breach of the Contract by Canada.
- 2) Subject to paragraph 3) of GC5.11, Canada shall pay to the Contractor simple interest at the Average Bank Rate plus 3 percent per annum on any amount that is overdue pursuant to paragraph 3) of GC5.1 INTERPRETATION, and the interest shall apply from and include the day such amount became overdue until the day prior to the date of payment.
- 3) Interest shall be paid without demand by the Contractor except that

- (a) in respect of amounts that are less than 15 days overdue, no interest shall be paid in respect of payment made within such 15 days unless the Contractor so demands after such amounts have become due and payable; and
- (b) interest shall not be payable or paid on overdue advance payments, if any.

GC5.12 INTEREST ON SETTLED CLAIMS

- 1) For the purposes of this clause, a claim means a disputed amount subject to negotiation between Canada and the Contractor under the Contract.
- 2) A claim is deemed to have been settled when an agreement in writing is signed by Canada and the Contractor setting out the amount of the claim to be paid by Canada and the items of work for which the said amount is to be paid.
- 3) A settled claim is deemed to be outstanding from the day immediately following the date the said claim would have been due and payable under the Contract had it not been disputed.
- 4) Canada shall pay to the Contractor simple interest on the amount of a settled claim at the Average Bank Rate plus 3 percent per annum from the date the settled claim was deemed to be outstanding until the day prior to the date of payment.

GC5.13 RETURN OF SECURITY DEPOSIT

- After a Certificate of Substantial Performance has been issued, and if the Contractor is not in breach of nor in default under the Contract, Canada shall return to the Contractor all or any part of a Security Deposit that, in the opinion of Canada, is not required for the purposes of the Contract.
- 2) After a Certificate of Completion has been issued, Canada shall return to the Contractor the remainder of any security deposit unless the Contract stipulates otherwise.
- 3) If the security deposit was paid into the Consolidated Revenue Fund of Canada, Canada shall pay interest thereon to the Contractor at a rate established pursuant to section 21(2) of the *Financial Administration Act (FAA)*.

GC6 DELAYS AND CHANGES IN THE WORK

DELAYS AND EXTENSION OF TIME

GC6.1	CHANGE	S IN THE WORK
GC6.2	CHANGE	S IN SUBSURFACE CONDITIONS
GC6.3	HUMAN R	EMAINS, ARCHAEOLOGICAL REMAINS AND ITEMS OF HISTORICAL OR
	SCIENTIF	IC INTEREST
GC6.4	DETERMI	NATION OF PRICE
	GC6.4.1	Price Determination Prior to Undertaking Changes
	GC6.4.2	Price Determination Following Completion of Changes
	GC6.4.3	Price Determination - Variations in Tendered Quantities

GC6.1 CHANGES IN THE WORK

GC6.5

- At any time before issuance of a Certificate of Completion, Canada may issue orders for additions, deletions or other changes to the Work, or changes in the location or position of the whole or any part of the Work, if the addition, deletion, change or other revision is deemed by Canada to be consistent with the general intent of the Contract.
- 2) An order referred to in paragraph 1) of GC6.1 shall be in writing and given to the Contractor in accordance with GC2.3 NOTICES.
- 3) Upon receipt of an order, the Contractor shall promptly perform the work in accordance with the order as if the order had appeared in and been part of the original Contract.
- 4) If anything done or omitted by the Contractor pursuant to an order increases or decreases the cost of the Work to the Contractor, payment for the work shall be made in accordance with GC6.4 DETERMINATION OF PRICE.

GC6.2 CHANGES IN SUBSURFACE CONDITIONS

- If, during the performance of the Work, the Contractor encounters subsurface conditions that
 are substantially different from the subsurface conditions described in the tender documents
 supplied to the Contractor, or a reasonable assumption of fact based thereon, the Contractor
 shall give notice to Canada immediately upon becoming aware of the situation.
- 2) If the Contractor is of the opinion that the Contractor may incur or sustain any extra expense or any loss or damage that is directly attributable to the changed subsurface conditions, the Contractor shall within 10 days of the date the changed subsurface conditions were encountered, give Canada written notice of intention to claim for that extra expense, loss or damage.
- 3) If the Contractor has given a notice referred to in paragraph 2) of GC6.2, the Contractor shall give Canada a written claim for extra expense, loss or damage no later than 30 days after the date that a Certificate of Substantial Performance is issued.
- 4) A written claim referred to in paragraph 3) of GC6.2 shall contain a sufficient description of the facts and circumstances of the occurrence that is the subject of the claim to enable Canada to determine whether or not the claim is justified, and the Contractor shall supply such further and other information for that purpose as Canada requires.
- 5) If Canada determines that a claim referred to in paragraph 3) of GC6.2 is justified, Canada shall make an extra payment to the Contractor in an amount that is calculated in accordance with GC6.4 DETERMINATION OF PRICE.

- 6) If, in the opinion of Canada, the Contractor effects a saving of expenditure that is directly attributable to a substantial difference between the information relating to subsurface conditions at the site of the Work that is contained in the tender documents, or a reasonable assumption of fact based thereon, and the actual subsurface conditions encountered by the Contractor, the Contract Amount shall be reduced by the amount of the saving of expenditure determined in accordance with GC6.4 DETERMINATION OF PRICE.
- 7) If the Contractor fails to give a notice referred to in paragraph 2) of GC6.2 and a claim referred to in paragraph 3) of GC6.2 within the times stipulated, an extra payment shall not be made to the Contractor in respect of the occurrence.
- 8) Canada does not warrant the content expressed in any subsurface report available for the perusal of the Contractor that does not form part of the tender and contract documents.

GC6.3 HUMAN REMAINS, ARCHAEOLOGICAL REMAINS AND ITEMS OF HISTORICAL OR SCIENTIFIC INTEREST

- 1) For the purposes of this clause
 - (a) "human remains" means the whole or any part of a deceased human being, irrespective of the time of death;
 - (b) "archaeological remains" are items, artefacts or things made, modified or used by human beings in antiquity and may include, but not be limited to, stone, wood or iron structures or monuments, dump deposits, bone artefacts, weapons, tools, coins, and pottery; and
 - (c) "items of historical or scientific interest" are naturally occurring or manufactured objects or things of any age that are not archaeological remains but may be of interest to society because of their historical or scientific significance, value, rarity, natural beauty, or other quality.
- 2) If, during the course of the Work, the Contractor encounters any object, item or thing which is described in paragraph 1) of GC6.3 or which resembles any object, item or thing described in paragraph 1) of GC6.3, the Contractor shall
 - (a) take all reasonable steps, including stopping work in the affected area, to protect and preserve the object, item or thing;
 - (b) immediately notify Canada of the circumstances in writing; and
 - (c) take all reasonable steps to minimize additional costs that may accrue as a result of any work stoppage.
- 3) Upon receipt of a notification in accordance with subparagraph 2)(b) of GC6.3, Canada shall promptly determine whether the object, item or thing is one described in, or contemplated by paragraph 1) of GC6.3, and shall notify the Contractor in writing of any action to be performed, or work to be carried out, by the Contractor as a result of Canada's determination.
- 4) Canada may, at any time, enlist the services of experts to assist in the investigation, examination, taking of measurements or other such recordings, placing of permanent protection around or removing of the object, item or thing encountered by the Contractor, and the Contractor shall, to the satisfaction of Canada, allow them access and co-operate with them in the carrying out of their duties and obligations.

- 5) Human remains, archaeological remains and items of historical or scientific interest encountered at the site of the Work shall be deemed to be the property of Canada.
- 6) Except as may be otherwise provided for in the Contract, the provisions of GC6.4 DETERMINATION OF PRICE and GC6.5 DELAYS AND EXTENSION OF TIME shall apply.

GC6.4 DETERMINATION OF PRICE

GC6.4.1 Price Determination Prior to Undertaking Changes

- 1) If a Lump Sum Arrangement applies to the Contract or a part thereof, the price of any change shall be the aggregate estimated cost of labour, Plant and Material that is required for the change as agreed upon in writing by the Contractor and Canada plus a negotiated allowance for supervision, co-ordination, administration, overhead, margin and the risk of undertaking the work within the stipulated amount.
- 2) If a Unit Price Arrangement applies to the Contract or a part thereof, the Contractor and Canada may, by agreement in writing, add items, units of measurement, estimated quantities and prices per unit to the Unit Price Table.
- 3) A price per unit referred to in paragraph 2) of GC6.4.1 shall be determined on the basis of the aggregate estimated cost of labour, Plant and Material that is required for the additional item as agreed upon by the Contractor and Canada, plus a negotiated allowance.
- 4) To facilitate approval of the price of the change or the additional price per unit as applicable, the Contractor shall submit a cost estimate breakdown identifying, as a minimum, the estimated cost of labour, Plant, Material, each subcontract amount, and the amount of the negotiated allowance.
- 5) If no agreement is reached as contemplated in paragraph 1) of GC6.4.1, the price shall be determined in accordance with GC6.4.2.
- 6) If no agreement is reached, as contemplated in paragraphs 2) and 3) of GC6.4.1, Canada shall determine the class and the unit of measurement of the item of labour, Plant or Material and the price per unit shall be determined in accordance with GC6.4.2.

GC6.4.2 Price Determination Following Completion of Changes

- 1) If it is not possible to predetermine, or if there is failure to agree upon the price of a change in the Work, the price of the change shall be equal to the aggregate of
 - (a) all reasonable and proper amounts actually expended or legally payable by the Contractor in respect of the labour, Plant and Material that fall within one of the classes of expenditure described in paragraph 2) of GC6.4.2, that are directly attributable to the performance of the Contract;
 - (b) an allowance for profit and all other expenditures or costs, including overhead, general administration costs, financing and interest charges, in an amount that is equal to 10 percent of the sum of the expenses referred to in subparagraph 1)(a) of GC6.4.2; and
 - (c) interest on the amounts determined under subparagraphs 1)(a) and 1)(b) of GC6.4.2 calculated in accordance with GC5.12 INTEREST ON SETTLED CLAIMS:

- The cost of labour, Plant and Material referred to in subparagraph 1)(a) of GC6.4.2 shall be limited to the following categories of expenditure:
 - (a) payments to Subcontractors and Suppliers;
 - (b) wages, salaries, bonuses and, if applicable, travel and lodging expenses of employees of the Contractor located at the site of the Work and that portion of wages, salaries, bonuses and, if applicable, travel and lodging expenses of personnel of the Contractor generally employed at the head office or at a general office of the Contractor provided they are actually and properly engaged on the Work under the Contract;
 - (c) assessments payable under any statutory authority relating to workers' compensation, employment insurance, pension plan or holidays with pay, provincial health or insurance plans, environmental reviews, and Applicable Taxes collection costs;
 - (d) rent that is paid for Plant, or an amount equivalent to the said rent if the Plant is owned by the Contractor, that is necessary for and used in the performance of the Work, if the rent or the equivalent amount is reasonable and use of that Plant has been approved by Canada;
 - (e) payments for maintaining and operating Plant necessary for and used in the performance of the Work, and payments for effecting repairs thereto that, in the opinion of Canada, are necessary for the proper performance of the Contract, other than payments for any repairs to the Plant arising out of defects existing before its allocation to the Work;
 - (f) payments for Material that is necessary for and incorporated in the Work, or that is necessary for and consumed in the performance of the Contract;
 - (g) payments for preparation, delivery, handling, erection, installation, inspection, protection and removal of the Plant and Material necessary for and used in the performance of the Contract; and
 - (h) any other payments made by the Contractor with the approval Canada that are necessary for the performance of the Contract in accordance with the Contract Documents.

GC6.4.3 Price Determination - Variations in Tendered Quantities

- 1) Except as provided in paragraphs 2), 3), 4) and 5) of GC6.4.3, if it appears that the final quantity of labour, Plant and Material under a price per unit item shall exceed or be less than the estimated tendered quantity, the Contractor shall perform the Work or supply the Plant and Material required to complete the item and payment shall be made for the actual Work performed or Plant and Material supplied at the price per unit set out in the Contract.
- 2) If the final quantity of the price per unit item exceeds the estimated tendered quantity by more than 15 percent, either party to the Contract may make a written request to the other party to negotiate an amended price per unit for that portion of the item which exceeds 115 percent of the estimated tendered quantity, and to facilitate approval of any amended price per unit, the Contractor shall, on request, provide Canada with
 - detailed records of the actual cost to the Contractor of performing or supplying the tendered quantity for the price per unit item up to the time the negotiation was requested; and

- (b) the estimated unit cost of labour, Plant and Material required for the portion of the item that is in excess of 115 percent of the tendered quantity.
- 3) If agreement is not reached as contemplated in paragraph 2) of GC6.4.3, the price per unit shall be determined in accordance with GC6.4.2.
- 4) If it appears that the final quantity of labour, Plant and Material under a price per unit item shall be less than 85 percent of the estimated tendered quantity, either party to the Contract may make a written request to the other party to negotiate a change to the price per unit for the item if
 - (a) there is a demonstrable difference between the unit cost to the Contractor of performing or supplying the estimated tendered quantity and the unit cost to the Contractor for performing or supplying the final quantity; and
 - (b) the difference in unit cost is due solely to the decrease in quantity and not to any other cause.
- 5) For the purposes of the negotiation referred to in paragraph 4) of GC6.4.3
 - (a) the onus of establishing, justifying and quantifying a proposed change lies with the party making the request for negotiation; and
 - (b) in no event shall the total price for an item that has been amended as a result of a reduction in quantity pursuant to paragraph 4) of GC6.4.3 exceed the amount that would have been payable to the Contractor had 85 percent of the tendered quantity actually been performed or supplied.

GC6.5 DELAYS AND EXTENSION OF TIME

- Upon application of the Contractor made before the date first fixed for completion of the Work or before any other date previously fixed under this clause, Canada may extend the time for completion of the Work by fixing a new date if Canada determines that causes beyond the control of the Contractor have delayed its completion.
- 2) The Contractor's application shall be accompanied by the written consent of the bonding company whose bond forms part of the Contract Security.
- 3) Subject to paragraph 4) of GC6.5, no payment, other than a payment that is expressly stipulated in the Contract, shall be made by Canada to the Contractor for any extra expense, loss or damage incurred or sustained by the Contractor due to delay, whether or not the delay is caused by circumstances beyond the control of the Contractor.
- 4) If the Contractor incurs or sustains any extra expense or any loss or damage that is directly attributable to any neglect or delay that occurs after the date of the Contract on the part of Canada in providing any information or in doing any act that the Contract either expressly requires Canada to do or that would ordinarily be done by an owner in accordance with the practice of the trade, the Contractor shall give Canada written notice of intention to claim for that extra expense or loss or damage within ten working days of the date the neglect or delay first occurred.
- When the Contractor has given a notice referred to in paragraph 4) of GC6.5, the Contractor shall give Canada a written claim for the extra expense, loss or damage no later than 30 days after the date that a Certificate of Completion is issued and not afterwards.

- 6) A written claim referred to in paragraph 5) of GC6.5 shall contain a sufficient description of the facts and circumstances of the occurrence that is the subject of the claim to enable Canada to determine whether or not the claim is justified and the Contractor shall supply such further and other information for that purpose as Canada may require.
- 7) If Canada determines that a claim referred to in paragraph 5) of GC6.5 is justified, Canada shall make an extra payment to the Contractor in an amount that is calculated in accordance with GC6.4 DETERMINATION OF PRICE.
- 8) If the Contractor fails to give a notice referred to in paragraph 4) and a claim referred to in paragraph 5) of GC6.5 within the times stipulated, an extra payment shall not be made to the Contractor in respect of the occurrence.

GC7 DEFAULT, SUSPENSION OR TERMINATION OF CONTRACT

- GC7.1 TAKING THE WORK OUT OF THE CONTRACTOR'S HANDS
- GC7.2 SUSPENSION OF WORK
- GC7.3 TERMINATION OF CONTRACT
- GC7.4 SECURITY DEPOSIT FORFEITURE OR RETURN

GC7.1 TAKING THE WORK OUT OF THE CONTRACTOR'S HANDS

- By giving notice in writing to the Contractor in accordance with GC2.3 NOTICES, Canada, without any other authorization, may take all or any part of the Work out of the Contractor's hands, and may employ such means as Canada sees fit to have the Work completed if the Contractor:
 - (a) fails to remedy any delay in the commencement or default in the diligent performance of the Work to the satisfaction of Canada within six days of Canada giving notice to the Contractor in writing in accordance with GC2.3 NOTICES;
 - (b) defaults in the completion of any part of the Work within the time fixed for its completion by the Contract;
 - (c) becomes insolvent, or has committed an act of bankruptcy, and has neither made a proposal to its creditors nor filed a notice of intention to make such a proposal, pursuant to the *Bankruptcy and Insolvency Act*;
 - (d) abandons the work;
 - (e) makes an assignment of the Contract without the consent required by GC1.16 ASSIGNMENT; or
 - (f) otherwise fails to observe or perform any of the provisions of the Contract.
- 2) If the whole or any part of the Work is taken out of the Contractor's hands, the Contractor's right to any further payment that is due or accruing due under the Contract is, subject only to paragraph 3) of GC7.1, extinguished, and the Contractor is liable to pay Canada, upon demand, an amount that is equal to the amount of all loss and damage incurred or sustained by Canada in respect of the Contractor's failure to complete the Work.
- 3) If the whole or any part of the Work that is taken out of the Contractor's hands is completed by Canada, Canada may pay the Contractor the amount, if any, of the holdback or a progress claim as determined by Canada that had accrued and was due prior to the date on which the Work was taken out of the Contractor's hands and that is not required for the purposes of having the Work performed or of compensating Canada for any other loss or damage incurred or sustained by reason of the Contractor's default.
- 4) The taking of the Work or any part thereof out of the Contractor's hands does not relieve the Contractor from any obligation under the Contract or imposed by law except the obligation to complete the performance of that part of the Work that was taken out of the Contractor's hands.
- 5) If the Work or any part thereof is taken out of the Contractor's hands, all Plant and Material and the interest of the Contractor, or its suppliers or subcontractors at any tier, in all real property, licences, powers and privileges acquired, used or provided by the Contractor, or its suppliers or subcontractors at any tier, under the Contract shall continue to be the property of Canada without compensation.

- 6) When Canada certifies that any Plant, Material, or any interest of the Contractor is no longer required for the purposes of the Work, or that it is not in the interests of Canada to retain that Plant, Material, or interest, it shall revert to the Contractor.
- 7) If the Contractor has become insolvent or has committed an act of bankruptcy, and has either made a proposal to its creditors or filed a notice of intention to make such a proposal, pursuant to the <u>Bankruptcy and Insolvency Act</u>, the Contractor shall immediately forward a copy of the proposal or the notice of intention to Canada.

GC7.2 SUSPENSION OF WORK

- When, in Canada's opinion, it is in the public interest to do so, Canada may require the Contractor to suspend performance of the Work either for a specified or an unspecified period, by giving a notice of suspension in writing to the Contractor in accordance with GC2.3 NOTICES.
- 2) When a notice of suspension is received by the Contractor, the Contractor shall suspend all operations in respect of the Work except those that Canada determines are necessary for the care and preservation of the Work, Plant and Material.
- 3) During a period of suspension, the Contractor shall not remove any part of the Work, Plant or Material from its site without the consent of Canada.
- 4) If a period of suspension is 60 days or less, the Contractor shall resume the performance of the Work on the expiration of that period, and the Contractor is entitled to be paid the extra costs necessarily incurred by the Contractor as a result of the suspension, determined in accordance with GC6.4 DETERMINATION OF PRICE.
- 5) If a period of suspension is more than 60 days, Canada and the Contractor may agree that the performance of the Work shall be continued by the Contractor, and the Contractor shall resume performance of the Work subject to any terms and conditions agreed upon by Canada and the Contractor. If Canada and the Contractor do not agree that performance of the Work shall be continued by the Contractor, or upon the terms and conditions under which the Contractor shall continue the Work, the notice of suspension shall be deemed to be a notice of termination pursuant to GC7.3 TERMINATION OF CONTRACT.

GC7.3 TERMINATION OF CONTRACT

- Canada may terminate the Contract at any time by giving a notice of termination in writing to the Contractor in accordance with GC2.3 NOTICES.
- If the Contractor receives a notice of termination, the Contractor shall forthwith cease all
 operations in performance of the Contract, subject to any conditions stipulated in the notice.
- 3) Subject to paragraph 4) of GC7.3, if the Contract is terminated, Canada shall pay the Contractor an amount determined to be due to the Contractor pursuant to GC6.4 DETERMINATION OF PRICE less the aggregate of all amounts that were paid to the Contractor by Canada and all amounts that are due to Canada from the Contractor pursuant to the Contract.
- 4) In no event shall the total amount payable by Canada to the Contractor exceed the amount, calculated in accordance with GC5 TERMS OF PAYMENT, that would have been payable to the Contractor had the Contractor completed the Work.

5) Payment to the Contractor, if any, shall be made as soon as practicable under the circumstances.

GC7.4 SECURITY DEPOSIT - FORFEITURE OR RETURN

- 1) If the Work is taken out of the Contractor's hands, or the Contractor is in breach of, or in default under, the Contract, Canada may convert a security deposit to Canada's own use.
- 2) If Canada converts a security deposit, the amount realized shall be deemed to be an amount due from Canada to the Contractor under the Contract.
- 3) Any balance of the amount realized that remains after payment of all losses, damage and claims of Canada and others shall be paid by Canada to the Contractor if, in the opinion of Canada, it is not required for the purposes of the Contract.

GC8 DISPUTE RESOLUTION

GC8.1	INTERPRETATION
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	GC8.10.12 Subsequent Proceedings

GC8.1 INTERPRETATION

- "dispute" means any disagreement regarding any issue identified by the Contractor in the notice submitted to Canada in accordance with paragraph 2 of GC8.3 NOTICE OF DISPUTE, and includes any claim by the Contractor arising from such disagreement and any counterclaim by Canada, but does not include any claim by either party for punitive or exemplary damages, injury to persons, death, or any claim based on an allegation of libel or slander.
- The alternative dispute resolution procedures set out in GC8, do not apply to any claim by Canada against the Contractor except any counterclaim in a dispute as defined in paragraph 1 of GC8.1, including, but not limited to, any claim of setoff regarding any amount due to Canada under GC5.10 ASSESSMENT AND DAMAGES FOR LATE COMPLETION.

GC8.2 CONSULTATION AND CO-OPERATION

- 1) The parties agree to maintain open and honest communication throughout the performance of the Contract.
- 2) The parties agree to consult and co-operate with each other in the furtherance of the Work and the resolution of problems or differences that may arise.

GC8.3 NOTICE OF DISPUTE

1) Any difference between the parties to the Contract of any nature arising out of or in connection with the Contract which could result in a claim by the Contractor against Canada, and which is not settled by consultation and co-operation as envisaged in GC8.2

CONSULTATION AND CO-OPERATION, shall be resolved in the first instance by Canada, whose written decision or direction shall be final and binding subject only to the provisions of GC8. Such written decision or direction includes, but is not limited to, any written decision or direction by Canada under any provision of the General Conditions.

- The Contractor shall be deemed to have accepted the decision or direction of Canada referred to in paragraph 1) of GC8.3 and to have expressly waived and released Canada from any claim in respect of the particular matter dealt with in that decision or direction unless, within 15 working days after receipt of the decision or direction, the Contractor submits to Canada a written notice of dispute requesting formal negotiation under GC8.4 NEGOTIATION. Such notice shall refer specifically to GC8.4 NEGOTIATION, and shall specify the issues in contention and the relevant provisions of the Contract.
- 3) The giving of a written notice in accordance with paragraph 2) of GC8.3 shall not relieve the Contractor from complying with the decision or direction that is the subject of the dispute. Such compliance, however, shall not be construed as an admission by the Contractor of the correctness of such decision or direction.
- 4) If a dispute is not resolved promptly, Canada shall give such instructions as, in Canada's opinion, are necessary for the proper performance of the Work and to prevent delays pending a resolution of the matter. Unless Canada terminates the Contract, orders the Contractor to suspend the Work, or takes the Work out of the hands of the Contractor, the Contractor shall continue to perform the Work in accordance with the provisions and requirements of the Contract and the instructions of Canada. Such performance shall not prejudice any claim that the Contractor may have.
- 5) Nothing in GC8 relieves the Contractor from its obligation to provide any other notice required by the Contract within the time specified in the Contract, including but not limited to, any notice required under GC6.2 CHANGES IN SUBSURFACE CONDITIONS.

GC8.4 NEGOTIATION

- Within 10 working days after receipt by Canada of a notice referred to in paragraph 2) of GC8.3 NOTICE OF DISPUTE, or within such other period of time as may be mutually agreed to, the parties shall commence formal negotiations in order to resolve the dispute. Negotiations shall occur initially between representatives of the Contractor and Canada who play a direct supervisory role in the performance, administration or management of the Contract.
- 2) If the representatives referred to in paragraph 1) of GC8.4 are unable to resolve some or all of the issues which are the subject of the negotiations within 10 working days, the parties shall refer the remaining issues which are in dispute to a second level of negotiation between a principal or principals of the Contractor and a senior level manager or senior level managers representing Canada.
- 3) If negotiations fail to resolve the dispute within 30 working days from the date of delivery of the notice referred to in paragraph 2) of GC8.3 NOTICE OF DISPUTE, or within such longer period as may have been agreed to by the parties, the Contractor may, by giving written notice to Canada, in accordance with GC2.3 NOTICES, within 10 working days from the end of such period, request that mediation be undertaken to assist the parties to reach agreement on the outstanding issues.
- 3) If the Contractor does not request mediation within the period permitted by paragraph 3) of GC8.4, the Contractor shall be deemed to have accepted the decision or direction of Canada under paragraph 1) of GC8.3 NOTICE OF DIPUTE and to have expressly waived and

released Canada from any claim in respect of the particular matter dealt with in that decision or direction.

GC8.5 MEDIATION

- If the Contractor has requested mediation in accordance with paragraph 3) of GC8.4 NEGOTIATION, mediation shall be conducted in accordance with GC8.8 RULES FOR MEDIATION OF DISPUTES.
- 2) If a Project Mediator has not previously been appointed for the purposes of the Contract, a Project Mediator shall be appointed in accordance with GC8.8 RULES FOR MEDIATION OF DISPUTES forthwith after delivery of a notice in accordance with paragraph 3) of GC8.4 NEGOTIATION, requesting mediation.
- 3) If the dispute has not been resolved within
 - (a) Ten (10) working days following the appointment of a Project Mediator in accordance with paragraph 2) of GC8.5, if a Project Mediator was not previously appointed;
 - (b) Ten (10) working days following receipt by Canada of a written notice in accordance with paragraph 3) of GC8.4 NEGOTIATION, if a Project Mediator was previously appointed; or
 - (c) such other longer period as may have been agreed to by the parties;

the Project Mediator shall terminate the mediation by giving written notice to the parties stating the effective date of termination.

GC8.6 BINDING ARBITRATION

- If mediation of the dispute is terminated pursuant to the provisions of GC8.5, "Mediation", and
 - a) the termination of mediation occurs prior to the applicable date set out in paragraph 4) of GC8.6; and
 - b) the disputed issues involve issues of fact or issues of arbitral questions of law or issues of mixed fact and arbitral questions of law:

either party, by giving notice in writing to the other party in accordance with GC2.3, "Notices", may require that the dispute be resolved by binding arbitration pursuant to GC8.6.

- A notice referred to in paragraph 1) of GC8.6 shall be given within 10 working days of the date of termination of mediation under GC8.5 Mediation and shall be in accordance with GC2.3, "Notices".
- 3) If no notice is given within the period set out in paragraph 2) of GC8.6, or if the conditions set out in subparagraphs 1)(a) and 1)(b) of GC8.6 are not met, the arbitration provisions set out in GC8.6 do not apply to the dispute.
- Unless otherwise agreed, the arbitration of the dispute shall be held in abeyance until the earlier of
 - a) the date of issuance of a Certificate of Substantial Performance under GC5.5, "Substantial Performance of the Work";

- b) the date the Work is taken out of the Contractor's hands; and
- c) the date of termination of the Contract;

and consolidated with all other such disputes into a single arbitration.

- 5) Arbitral proceedings under this GC8.6 shall be governed by and conducted in accordance with the **Commercial Arbitration Act**, R.S. 1985, c. 17 (2nd Supp.) and the provisions of GC8.11, "Rules for Arbitration of Disputes".
- 6) For the purposes of calculating time under the Rules for Arbitration referred to in paragraph 5) of GC8.6, arbitration proceedings shall commence on the applicable date set out in paragraph 4) of GC8.6.
- 7) Notwithstanding anything else contained in GC8.6, the arbitration provisions in GC8.6 do not apply if the aggregate amount of all claims by the Contractor required to be arbitrated on the applicable date set out in paragraph 4) of GC8.6 is less than \$25,000.

GC8.7 DISPUTES NOT SUBJECT TO ARBITRATION

- Where the arbitration provisions in GC8.6, "Binding Arbitration", do not apply to a dispute as a result of paragraphs 3) or 7) of GC8.6, "Binding Arbitration", either party may take such court action or proceedings as it considers appropriate, including, without limiting the foregoing, all suits that would otherwise have been immediately available to it but for the provisions of these Dispute Resolution Conditions. Subject to the provisions of paragraph 2) of GC8.7, the Contractor shall initiate any such action or proceeding no later than three calendar months after the date that a Certificate of Completion is issued under GC5.6, "Final Completion", and not afterwards, except where it is otherwise provided by law.
- 2) Any action or proceeding resulting from a direction under GC3.13, "Warranty and Rectification of Defects in Work", shall be initiated by the Contractor no later than three calendar months after the expiry of the warranty or guarantee period and not afterwards, except where it is otherwise provided by law.

GC8.8 (2016-05-01) CONFIDENTIALITY

All information exchanged during alternative dispute resolution procedures, by whatever means, shall be without prejudice and shall be treated as confidential by the parties and their representatives, unless otherwise required by law. However, evidence that is independently admissible or discoverable shall not be rendered inadmissible or non-discoverable by virtue of its use during an alternative dispute resolution process.

GC8.9 (2016-05-01) SETTLEMENT

Any agreement to settle all or any part of a dispute, by whatever means, shall be in writing and be signed by the parties or their authorized representatives.

GC8.10 (2016-05-01) RULES FOR MEDIATION OF DISPUTES

GC8.10.1 Interpretation

In these Rules

 "Coordinator" means the person designated by Canada to act as the Dispute Resolution Coordinator.

GC8.10.2 Application

1) By mutual agreement, the parties may change or make additions to the Rules.

GC8.10.3 Communication

 Written communications pursuant to these Rules shall be given in accordance with GC2.3 NOTICES.

GC8.10.4 Appointment of Project Mediator

- The parties to the Contract may, by mutual consent, at any time after entry into the Contract, appoint a mediator (the "Project Mediator") to conduct mediation proceedings in accordance with these Rules for Mediation of Disputes, in regard to any dispute that may arise with regard to the interpretation, application or administration of the Contract. In this case, they shall jointly enter into a contract with the appointed Project Mediator, which contract shall be in a form drafted by the Coordinator and agreed to by the parties.
- 2) If the parties do not appoint a Project Mediator pursuant to paragraph 1) of GC8.8.4, the parties shall appoint a Project Mediator within 17 working days following receipt of a written notice from the Contractor, in accordance with GC2.3 NOTICES, requesting that mediated negotiations be undertaken in accordance with these Rules to assist the parties to reach agreement on any outstanding issues that may be in dispute. Any contract entered into with the appointed Project Mediator shall meet the requirements as set out for the contract described in paragraph 1) of GC8.8.4.
- 3) When mediation is requested by the Contractor pursuant to paragraph 3) of GC8.4 NEGOTIATION, if the parties have previously entered into a contract with a Project Mediator, the parties shall within 2 days send to both the Project Mediator and the Coordinator
 - (a) a copy of the notice requesting negotiation under paragraph 2) of GC8.3 NOTICE OF DISPUTE:
 - (b) a copy of Canada's written position in relation to the notice, the issues in contention and the relevant provisions of the contract; and
 - (c) a copy of the Contractor's written request for mediation required under paragraph 3) of GC8.4 NEGOTIATION.
- 4) If the parties have not agreed on a Project Mediator, the parties shall forthwith provide the Coordinator with the written materials referred to in subparagraphs 3)(a), 3)(b) and 3)(c) of GC8.8.4 together with a request that the Coordinator assist in the appointment of a mutually acceptable Project Mediator in accordance with these Rules.
- 5) Within 5 working days following receipt of the request and materials referred to in paragraph 4) of GC8.8.4, the Coordinator shall provide the parties with a list of qualified private sector mediators obtained from an independent and impartial entity, together with instructions to

- each party to individually and confidentially select and rank their preferred and fully acceptable choices of mediator in descending order. Each mediator listed shall be impartial and independent of the parties, and shall be an experienced and skilled commercial mediator, preferably with knowledge of the subject matter of the dispute.
- 6) Within 10 working days of receipt of the list referred to in paragraph 5) of GC8.8.4 each party shall comply with the instructions accompanying the list(s) and shall deliver the completed listing to the Coordinator.
- 7) Within 2 working days following receipt of the completed listings, the Coordinator shall select the highest common ranked mediator to act as Project Mediator for the purposes of the contract.
- 8) In the event of a tie, the Coordinator shall consult both parties to re-evaluate their rankings in order to assist the Coordinator in selecting a Project Mediator acceptable to both parties. If the parties cannot agree upon a Project Mediator, the Coordinator shall forthwith provide the parties with a second list of mediators and the procedure shall be repeated.
- 9) If the parties have not previously entered into a contract with a mutually acceptable Project Mediator, the Coordinator shall use reasonable efforts to negotiate a contract with a mutually acceptable Project Mediator on behalf of the parties, which contract shall incorporate or otherwise comply with the provisions of these Rules. If negotiations are unsuccessful, or if for other reason the individual is unwilling or unable to enter into a contract to act as Project Mediator, the Coordinator shall repeat the process with the second-highest common ranked mediator.
- 10) The parties agree that, upon successful completion of the negotiations referred to in paragraph 9) of GC8.8.4, they shall jointly enter into a contract with the selected Project Mediator, which contract shall be in a form drafted by the Coordinator and agreed to by the parties.
- 11) Upon execution of the contract with the Project Mediator referred to in paragraph 10) of GC8.8.4 the Coordinator shall provide the Project Mediator with copies of the documents referred to in paragraph 3) of GC8.8.4.

GC8.10.5 Confidentiality

- Subject to paragraph 2) of GC8.8.5, and unless otherwise agreed in writing by the parties, the Project Mediator, the parties and their counsel or representatives shall keep confidential all matters and documents disclosed during mediation proceedings except where the disclosure is necessary for any implementation of any agreement reached or is required by law.
- Evidence that is independently admissible or discoverable in any arbitral or judicial proceeding shall not be rendered inadmissible or non-discoverable by virtue of its use in mediation proceedings.
- 3) Neither party shall make transcripts, minutes or other records of a mediation conference.
- 4) The personal notes and written opinions of the Project Mediator made in relation to mediation are in the Project Mediator's sole possession and control, are confidential, and may not be used in any subsequent proceeding between the parties or where they are opposed in interest without the express written permission of the parties.

5) All information exchanged during mediation procedures, by whatever means, shall be without prejudice and shall be treated as confidential by the parties and their representatives, unless otherwise required by law.

GC8.10.6 Time and Place of Mediation

The Project Mediator, in consultation with the parties shall set the date, time and place of any mediation conference as soon as possible, bearing in mind that, subject to agreement to the contrary between the parties, only 10 working days are available within which to attempt to settle the dispute.

GC8.10.7 Representation

- Representatives of the parties may be accompanied at the mediation conference by legal counsel or any other person.
- 2) If the Project Mediator is a lawyer, the Project Mediator shall not provide legal advice to a party during the course of the mediation conference, but may recommend that a party obtain independent legal advice before finalizing a settlement agreement.

GC8.10.8 Procedure

- The parties agree to an exchange of all facts, information and documents upon which they intend to rely in any oral or written presentation during the mediation. This exchange shall be completed no later than 2 working days prior to the date set for a mediation conference.
- 2) The Project Mediator shall be free to meet with the parties individually during a mediation conference if the Project Mediator is of the opinion that this may improve the chances of a mediated settlement, and either party may request such an individual meeting at any time.
- 3) The parties may agree to extend the 10 working days available for settlement of the dispute through mediation, and the Project Mediator shall record that agreement in writing.

GC8.10.9 Settlement Agreement

- The parties shall record in writing any settlement agreement reached, with sufficient detail to ensure a clear understanding of
 - (a) the issues resolved;
 - (b) any obligations assumed by each party including criteria to determine if and when these obligations have been met; and
 - (c) the consequences of failure to comply with the agreement reached.
- 2) The parties agree to carry out the terms of a settlement agreement as soon as possible and, in any event, within any time periods specified in the agreement.

GC8.10.10 Termination of Mediation

- Either party may withdraw from mediation at any time without reason and, in that event, the Project Mediator shall give each party a written notice terminating the mediation and establishing the effective date of termination.
- 2) If, in the opinion of the Project Mediator, either party fails to mediate in good faith or fails to comply with the terms of these Rules, or if the Project Mediator, at any time during mediation, is of the opinion that further negotiations will fail to resolve the issues outstanding, the Project Mediator may terminate the negotiations by providing the parties with a written notice of termination, stating therein the Project Mediator's reasons for the termination, and the effective date of termination.
- 3) If a dispute has not been resolved within 10 working days or such other longer period as may have been agreed to by the parties, the Project Mediator shall terminate the mediation by giving written notice to the parties stating the effective date of termination.

GC8.10.11 Costs

The parties agree that they will each be responsible for the costs of their own representatives and advisors and associated travel and living expenses. Fees and expenses of the Project Mediator and all administrative costs of mediation, such as the cost of the meeting room(s), if any, shall be borne equally by the parties.

GC8.10.12 Subsequent Proceedings

- 1) The parties shall not rely on or introduce as evidence in any arbitral or judicial proceeding, whether or not such proceeding relates to the subject matter of mediation,
 - (a) any documents of other parties that are not otherwise producible in those proceedings;
 - (b) any views expressed or suggestions made by any party in respect of a possible settlement of issues;
 - (c) any admission made by any party in the course of mediation unless otherwise stipulated by the admitting party; and
 - (d) the fact that any party has indicated a willingness to make or accept a proposal or recommendation for settlement.
- The Project Mediator shall neither represent nor testify on behalf of either of the parties in any subsequent investigation, action or proceeding relating to the issues in mediation proceedings.
- 3) The Project Mediator shall not be subpoenaed to give evidence relating to
 - (a) the Project Mediator's role in mediation; or
 - (b) the matters or issues in mediation;

in any subsequent investigation, action or proceeding and the parties agree to vigorously oppose any effort to have the Mediator so subpoenaed.

GC9 CONTRACT SECURITY

GC9.1 OBLIGATION TO PROVIDE CONTRACT SECURITY GC9.2 TYPES AND AMOUNTS OF CONTRACT SECURITY

GC9.1 OBLIGATION TO PROVIDE CONTRACT SECURITY

- The Contractor shall, at the Contractor's expense and within 14 days after the date that the Contractor receives notice that the Contractor's bid was accepted by Canada, obtain and deliver Contract Security to Canada in one of the forms prescribed in GC9.2 TYPES AND AMOUNTS OF CONTRACT SECURITY.
- If the whole or a part of the Contract Security provided is in the form of a security deposit, it shall be held and disposed of in accordance with GC5.13 RETURN OF SECURITY DEPOSIT and GC7.4 SECURITY DEPOSIT - FORFEITURE OR RETURN.
- 3) If a part of the Contract Security provided is in the form of a labour and material payment bond, the Contractor shall post a copy of that bond at the site of the Work.
- 4) It is a condition precedent to the release of the first progress payment that the Contractor has provided the Contract Security as specified herein.

GC9.2 (2016-05-01) TYPES AND AMOUNTS OF CONTRACT SECURITY

- 1) The Contractor shall deliver to Canada either (a) or (b).
 - a) A performance bond and a labour and material payment bond each in an amount that is equal to not less than 50 percent of the Contract Amount (excluding applicable tax(es)).
 - b) A security deposit or an irrevocable standby letter of credit in an amount that is equal to not less than 20 percent of the Contract Amount (excluding applicable tax(es)).
- A performance bond and a labour and material payment bond referred to in paragraph 1) of GC9.2 shall be in a form and be issued by a bonding or surety company that is approved by Canada.
 - (a) The approved form for the performance bond is displayed at the following Website: http://www.tbs-sct.gc.ca/pol/doc-eng.aspx?id=14494§ion=text#appS
 - (b) The approved form for the labour and material payment bond is displayed at the following website: http://www.tbs-sct.gc.ca/pol/doc-eng.aspx?id=14494§ion=text#appS; and
 - (c) The list of approved bonding or surety companies is displayed at the following Website: http://www.tbs-sct.gc.ca/pol/doc-eng.aspx?id=14494§ion=text#appl
- 3) A security deposit referred to in subparagraph 1)(b) of GC9.2 shall be in the form of
 - a bill of exchange, bank draft or money order made payable to the Receiver General for Canada and certified by an approved financial institution or drawn by an approved financial institution on itself: or

- b. bonds of, or unconditionally guaranteed as to principal and interest by, the Government of Canada.
- 4) For the purposes of subparagraph 3)(a) of GC9.2
 - a) a bill of exchange is an unconditional order in writing signed by the Contractor and addressed to an approved financial institution, requiring the said institution to pay, on demand, at a fixed or determinable future time a sum certain of money to, or to the order of, the Receiver General for Canada;
 - b) if a bill of exchange, bank draft or money order is certified by or drawn on an institution or corporation other than a chartered bank, it must be accompanied by proof that the said institution or corporation meets at least one of the criteria described in subparagraph 4)(c) of GC9.2, either by letter or by a stamped certification on the bill of exchange, bank draft or money; and
 - c) An approved financial institution is
 - I.a corporation or institution that is a member of the Canadian Payments Association as defined in the <u>Canadian Payments Act</u>;
 - II.a corporation that accepts deposits that are insured, to the maximum permitted by law, by the Canada Deposit Insurance Corporation or the "Autorité des marchés financiers";
 - III.a corporation that accepts deposits from the public if repayment of the deposit is guaranteed by Her Majesty the Queen in right of a province;
 - IV.a corporation, association or federation incorporated or organized as a credit union or co-operative credit society that conforms to the requirements of a credit union which are more particularly described in paragraph 137(6) of the Income Tax Act; or
 - V.Canada Post Corporation.
- 5) Bonds referred to in subparagraph 3)(b) of GC9.2 shall be provided on the basis of their market value current at the date of the Contract, and shall be
 - a) made payable to bearer; or
 - accompanied by a duly executed instrument of transfer of the bonds to the Receiver General for Canada in the form prescribed by the Domestic Bonds of Canada Regulations; or
 - c) registered as to principal, or as to principal and interest, in the name of the Receiver General for Canada pursuant to the Domestic Bonds of Canada Regulations.
- 6) An irrevocable standby letter of credit referred to in subparagraph 1)(b) of GC9.2 shall
 - a) be an arrangement, however named or described, whereby a financial institution (the "Issuer") acting at the request and on the instructions of a customer (the "Applicant") or on its own behalf,
 - Lis to make a payment to, or to the order of, Canada as the beneficiary;
 - II.is to accept and pay bills of exchange drawn by Canada;

- III.authorizes another financial institution to effect such payment or accept and pay such bills of exchange; or
- IV.authorizes another financial institution to negotiate against written demand(s) for payment provided that the terms and conditions of the letter of credit are complied with:
- b) state the face amount that may be drawn against it;
- c) state its expiry date;
- d) provide for sight payment to the Receiver General for Canada by way of the financial institution's draft against presentation of a written demand for payment signed by Canada:
- e) provide that more than one written demand for payment may be presented subject to the sum of those demands not exceeding the face value of the letter of credit;
- f) provide that it is subject to the International Chamber of Commerce (ICC) Uniform Customs and Practice (UCP) for Documentary Credits, 2007 Revision, ICC Publication No. 600. Pursuant to the ICC UCP, a credit is irrevocable even if there is no indication to that effect; and
- g) be issued or confirmed, in either official language in a format left to the discretion of the issuer or confirmer, by an approved financial institution on its letterhead.

GC10 INSURANCE

GC10.1 INSURANCE CONTRACTS
GC10.2 INSURANCE PROCEEDS

GC10.1 INSURANCE CONTRACTS

- The contractor shall, at the contractor's expense, obtain and maintain insurance contracts in respect of the work and shall provide evidence thereof to Canada in accordance with the requirements of the INSURANCE TERMS.
- 2) The insurance contracts referred to in paragraph 1) of GC10.1 shall
 - (a) be in a form, of the nature, in the amounts, for the periods and containing the terms and conditions specified in INSURANCE TERMS; and
 - (b) provide for the payment of claims under such insurance contracts in accordance with GC10.2 INSURANCE PROCEEDS.

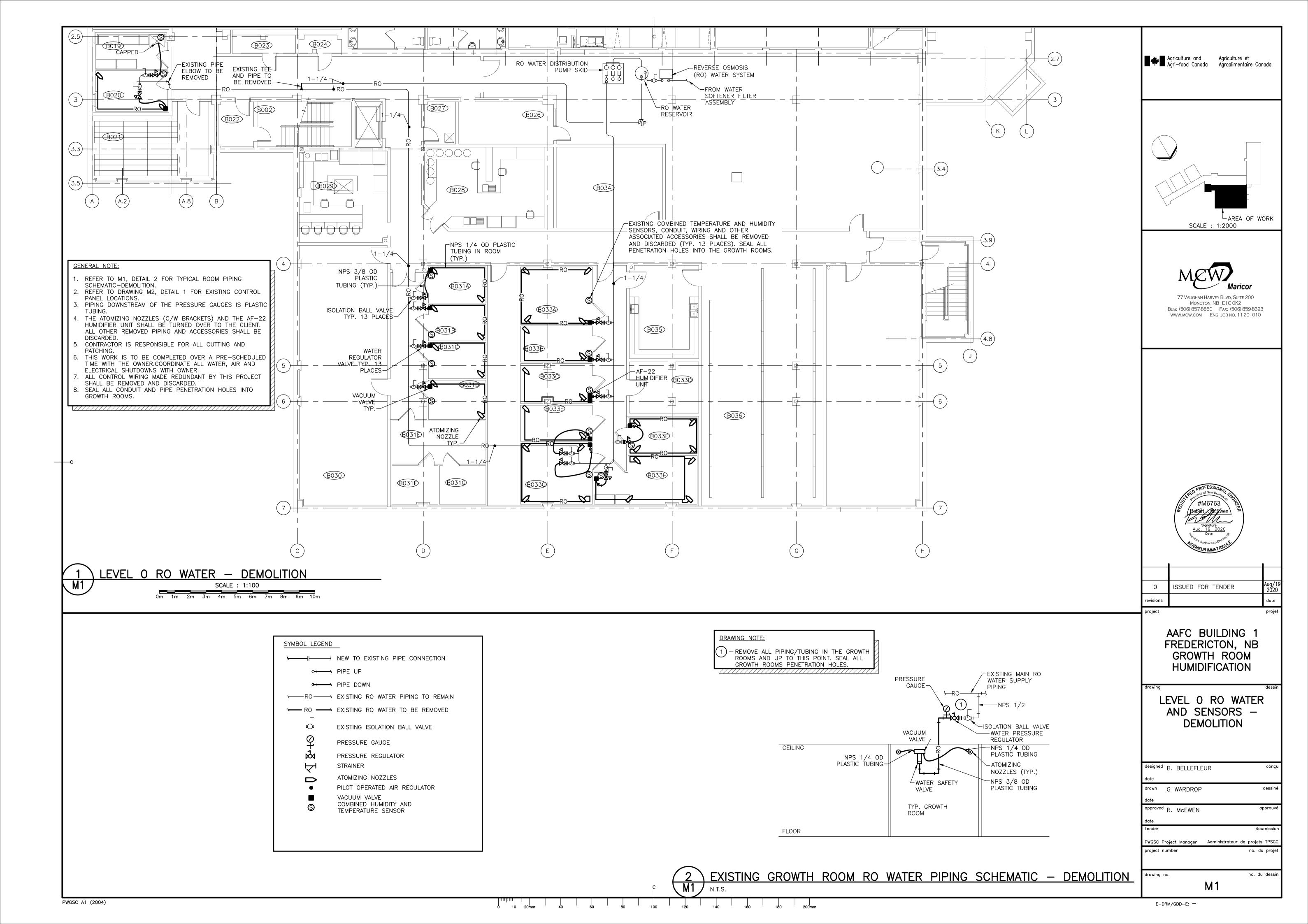
GC10.2 INSURANCE PROCEEDS

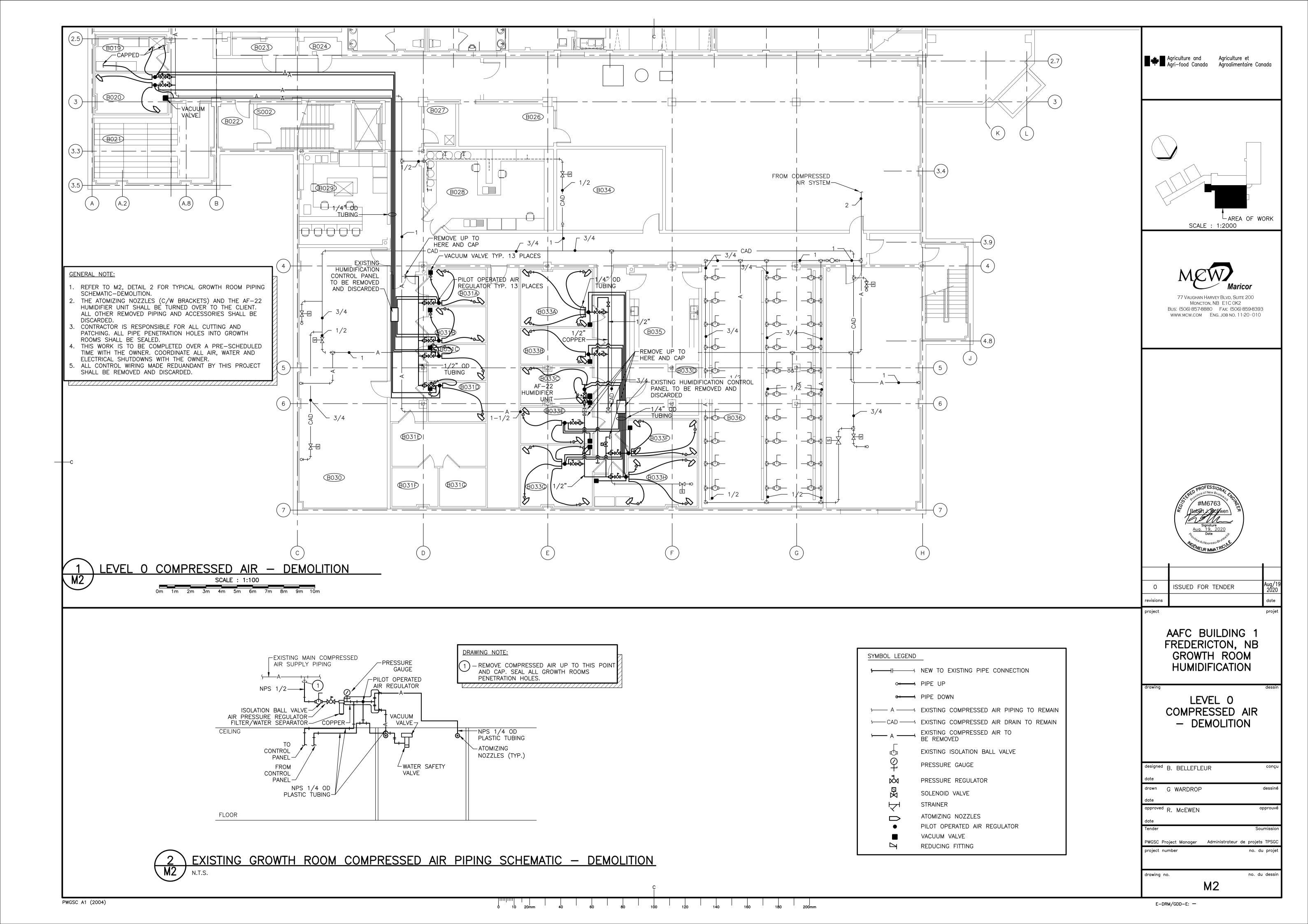
- In the case of a claim payable under a Builders Risk/Installation (All Risks) insurance contract maintained by the contractor pursuant to GC10.1 INSURANCE CONTRACTS, the proceeds of the claim shall be paid directly to Canada, and
 - (a) the monies so paid shall be held by Canada for the purposes of the contract, or
 - (b) if Canada elects, shall be retained by Canada, in which event they vest in Canada absolutely.
- 2) In the case of a claim payable under a General Liability insurance contract maintained by the contractor pursuant to GC10.1 INSURANCE CONTRACTS, the proceeds of the claim shall be paid by the insurer directly to the claimant.
- 3) If an election is made pursuant to paragraph 1) of GC10.2, Canada may cause an audit to be made of the accounts of the contractor and of Canada in respect of the part of the work that was lost, damaged or destroyed for the purpose of establishing the difference, if any, between
 - (a) the aggregate of the amount of the loss or damage suffered or sustained by Canada, including any costs incurred in respect of the clearing and cleaning of the work and its site and any other amount that is payable by the contractor to Canada under the contract, minus any monies retained pursuant to subparagraph 1)(b) of GC10.2; and
 - (b) the aggregate of the amounts payable by Canada to the contractor pursuant to the contract up to the date of the loss or damage.
- 4) A difference that is established pursuant to paragraph 3) of GC10.2 shall be paid forthwith by the party who is determined by the audit to be the debtor to the party who is determined by the audit to be the creditor.

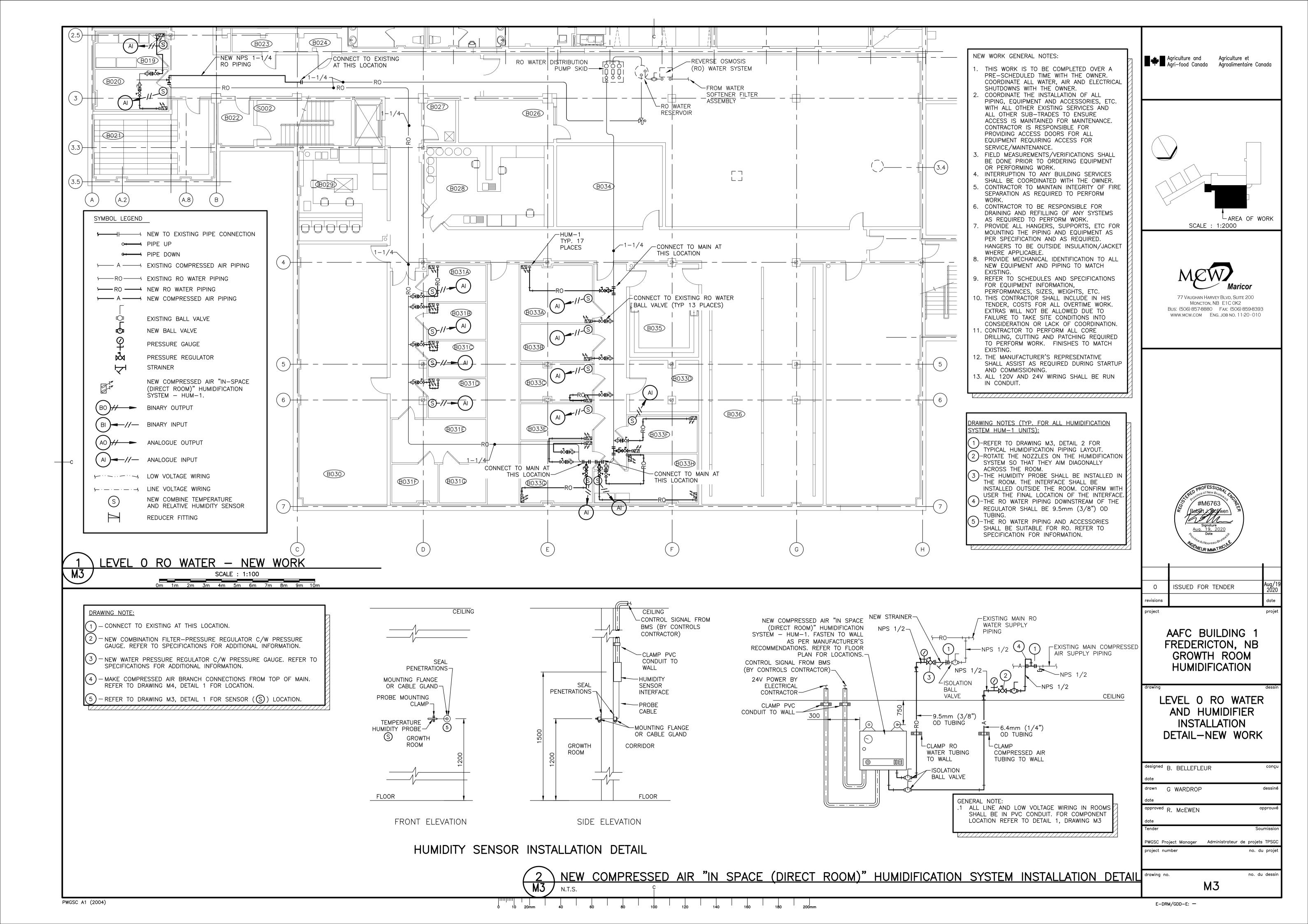
- 5) When payment of a deficiency has been made pursuant to paragraph 4) of GC10.2, all rights and obligations of Canada and the contractor under the contract shall, with respect only to the part of the work that was the subject of the audit referred to in paragraph 3) of GC10.2, be deemed to have been expended and discharged.
- 6) If an election is not made pursuant to subparagraph 1)(b) of GC10.2, the contractor shall, subject to paragraph 7) of GC10.2, clear and clean the work and its site and restore and replace the part of the work that was lost, damaged or destroyed at the contractor's expense as if that part of the work had not yet been performed.
- 7) When the contractor clears and cleans the work and its site and restores and replaces the work referred to in paragraph 6) of GC10.2, Canada shall pay the contractor out of the monies referred to in paragraph 1) of GC10.2 so far as they will thereunto extend.
- 8) Subject to paragraph 7) of GC10.2, payment by Canada pursuant to paragraph 7) of GC10.2 shall be made in accordance with the contract but the amount of each payment shall be 100 percent of the amount claimed notwithstanding subparagraphs 3)(a) and 3)(b) of GC5.4 PROGRESS PAYMENT.

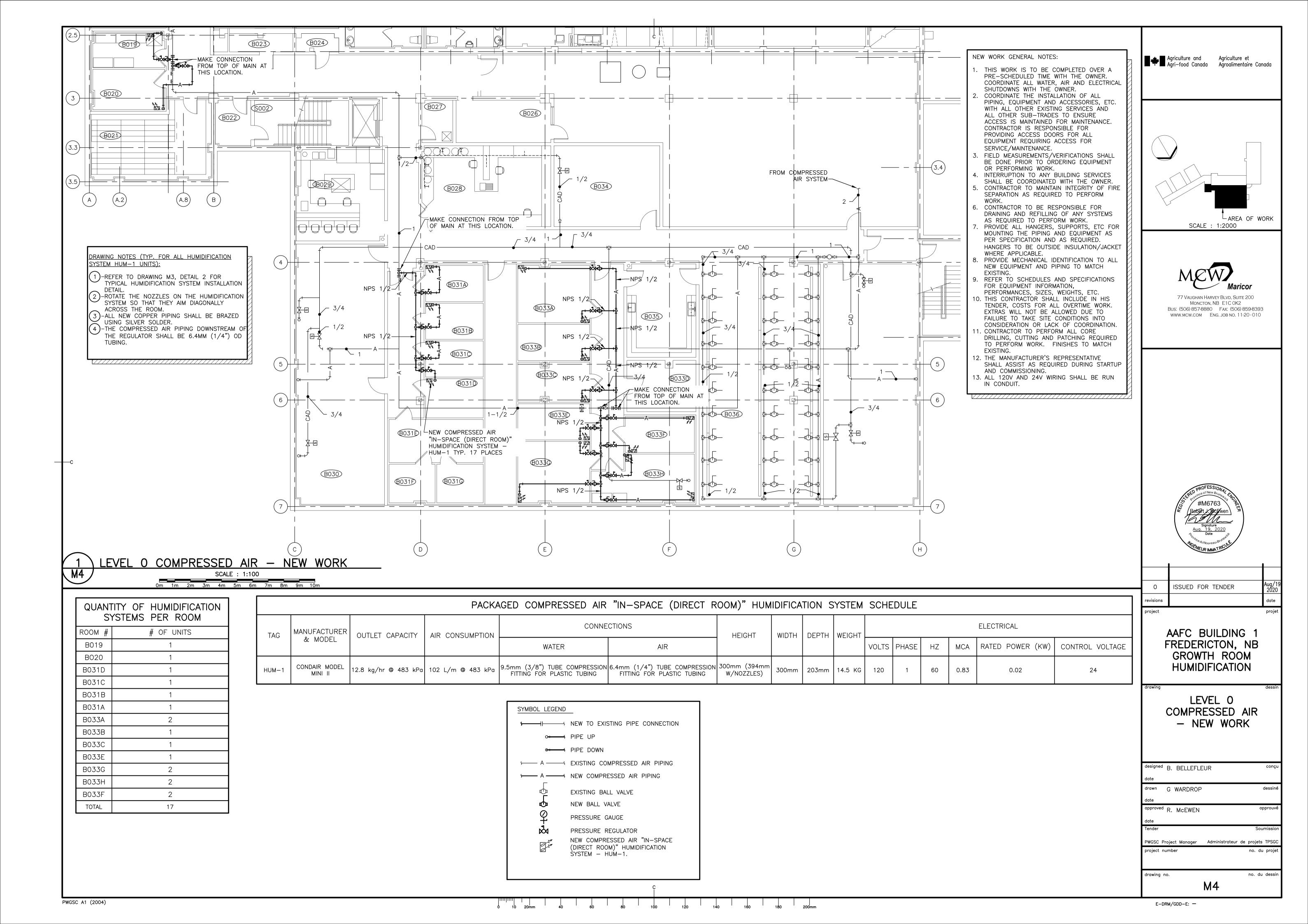
Appendix "E"

STATEMENT OF WORK & PLANS









GENERAL CONDITIONS

.1 GENERAL

THE FOLLOWING GENERAL CONDITIONS SHALL BE READ IN CONJUNCTION WITH THE GENERAL CONDITIONS AND SPECIAL CONDITIONS ISSUED BY THE PROJECT MANAGER.

THIS CONTRACTOR SHALL BE RESPONSIBLE FOR THE INSTALLATION, START-UP AND COMMISSIONING OF ALL NEW MECHANICAL EQUIPMENT. ALL OBLIGATIONS RELATED TO COORDINATION, INSTALLATION, COMMISSIONING AND WARRANTY ARE THE RESPONSIBILITY OF THIS CONTRACTOR. COORDINATE EQUIPMENT START-UP WITH EQUIPMENT SUPPLIER. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE FOLLOWING:

- .1 REMOVAL AND DISPOSAL OF ALL EQUIPMENT AND ASSOCIATED ACCESSORIES MADE REDUNDANT BY THIS PROJECT AND AS INDICATED.
- UNLOADING FROM DELIVERY TRUCK AT JOB SITE. PLACEMENT AT FINAL INSTALLATION LOCATION.
- COORDINATION OF ALL REQUIRED CONNECTIONS.
- STORAGE AS NECESSARY

.2 SCOPE OF WORK

THE CONTRACTOR SHALL INCLUDE ALL LABOR, MATERIALS, EQUIPMENT AND ASSOCIATED SERVICES NECESSARY FOR, AND REQUIRED BY THE INSTALLATION OF COMPLETELY FINISHED, TESTED, BALANCED AND PROPERLY OPERATING MECHANICAL SYSTEMS AS SPECIFIED HEREAFTER AND SHOWN ON THE DRAWINGS. THE INTENTION IS TO PROVIDE FOR FINISHED WORK COMPLETE IN ALL ESSENTIALS AS CALLED FOR BY THE DOCUMENTS AND ACCEPTED GOOD PRACTICE THE WORK SHALL INCLUDE THE FOLLOWING:

PLUMBING SYSTEM:

1. SUPPLY AND INSTALL:

- .1 PROVIDE REMOVALS AS INDICATED.
- .2 PROVIDE ALL PIPING, VALVES, HANGERS, HUMIDIFICATION SYSTEM AND ACCESSORIES AS NECESSARY FOR A COMPLETE WORKING SYSTEM.
- .3 PROVIDE MECHANICAL IDENTIFICATION AS PER SPECIFICATION REQUIREMENTS.
- .4 PROVIDE EMCS CONTROLS AS INDICATED.
- .5 PROVIDE ALL TESTING AND INSPECTION REQUIRED TO THE SATISFACTION OF THE CLIENT ON ALL NEW PIPING SYSTEMS.
- 2. WHEREVER POSSIBLE, ALL EXISTING ABANDONED DEVICES, PIPING
- AND ACCESSORIES SHALL BE REMOVED.
- 3. IT IS INTENDED THAT THE MECHANICAL CONTRACTOR ACTS AS THE GENERAL CONTRACTOR ON THIS PROJECT AND ENGAGE THE SERVICES OF ALL REQUIRED SUB-CONTRACTORS FOR OTHER TRADES INCLUDING CONTROLS AND ELECTRICAL WHERE REQUIRED.

4. THE WORK WILL REQUIRE STRICT SCHEDULING AND COORDINATION

- OF ALL WORKS WITH BUILDING MANAGEMENT TO MINIMIZE DISRUPTIONS. SHUT DOWN TO EXISTING RO WATER AND COMPRESSED AIR SYSTEMS SHALL BE SCHEDULED SO THAT NEW PIPING SYSTEMS CAN BE CONNECTED/ INSTALLED AND THEN ISOLATED SO THAT THE RO WATER AND COMPRESSED AIR SYSTEMS CAN BE REOPENED. ALL WORK SCHEDULING MUST BE COORDINATED AND APPROVED PRIOR TO COMMENCEMENT.
- 5. PROVIDE ALL CUTTING AND PATCHING, REPAIR UPON COMPLETION. 6. PROVIDE ALL NECESSARY FIRE PROOFING AND FIRED RATED CAULKING.

THE CONTRACTOR SHALL ABIDE BY ALL CODES AND BY-LAWS RELATING TO THIS INSTALLATION. PROVIDE NECESSARY NOTICES, OBTAIN PERMITS AND PAY ALL FEES, IN ORDER THAT WORK SPECIFIED MAY BE CARRIED OUT. CHANGES AND ALTERATIONS REQUIRED BY AUTHORIZED INSPECTOR OF ANY AUTHORITY HAVING JURISDICTION, TO BE CARRIED OUT WITHOUT CHARGE OR EXPENSE TO OWNER.

.4 COORDINATION OF WORK

THIS CONTRACTOR SHALL COORDINATE HIS WORK WITH THE PROJECT MANAGER AND WITH ALL OTHER SUB-CONTRACTORS. COOPERATE WITH THE OWNER AND OTHER CONTRACTORS. WORK SHALL BE EXECUTED IN A MANNER SO AS TO CAUSE MINIMUM DISRUPTION. THIS CONTRACTOR SHALL INCLUDE IN HIS TENDER. COSTS FOR ALL OVERTIME WORK INVOLVED WITH THE CONSTRUCTION.

.5 GUARANTEE

THE CONTRACTOR SHALL GUARANTEE ALL WORK AND NEW EQUIPMENT PROVIDED AND INSTALLED UNDER THIS SPECIFICATION AGAINST ANY DEFECTS OF WORKMANSHIP AND MATERIAL FOR A PERIOD OF ONE YEAR AFTER ACCEPTANCE OF SAME BY OWNER. REPAIR AND MAKE GOOD ALL DAMAGE TO BUILDING INCURRED AS A RESULT OF FAILURE OF MECHANICAL WORK.

.6 DRAWINGS

THE DRAWINGS FOR THE WORK ACCOMPANYING THESE SPECIFICATIONS ARE MADE AS ACCURATELY AS POSSIBLE. BUT ABSOLUTE ACCURACY OF DIMENSIONS CANNOT BE GUARANTEED. THEY ARE INTENDED TO SUPPLEMENT AND SIMPLIFY THE GENERAL CONTRACT DRAWINGS. NO CLAIM FOR EXTRA PAYMENT ON ACCOUNT OF DIFFERENCE OF ACTUAL AND ESTIMATED DIMENSIONS SHALL BE ALLOWED. IN THE CASE OF DISCREPANCY OF FIGURE DIMENSIONS ON THE DRAWINGS, THE MATTER SHALL BE IMMEDIATELY SUBMITTED TO THE ENGINEER FOR HIS DECISION. WITHOUT THE DECISION, THE DISCREPANCY SHALL NOT BE ADJUSTED BY THE CONTRACTOR AT HIS OWN RISK, AND IN THE SETTLEMENT OF ANY COMPLICATIONS ARISING FROM SUCH ADJUSTING. THE CONTRACTOR SHALL BEAR ALL EXTRA EXPENSE INVOLVED. INTERPRETATION OF ALL DOCUMENTS SHALL BE BY THE ENGINEER.

.7 EXTRA WORK

NO ADDITIONAL MONEY OVER CONTRACT PRICE SHALL BE PAID UNLESS CONTRACTOR RECEIVES A SIGNED APPROVAL IN ACCORDANCE WITH THE GENERAL CONDITIONS. NO ADDITIONAL MONEY SHALL BE PAID FOR USE OF EQUAL PRODUCTS.

.8 CUTTING AND PATCHING THE CONTRACTOR IS RESPONSIBLE FOR CUTTING AND PATCHING OF OPENINGS AND HOLES REQUIRED IN FLOORS, ROOFS, CEILINGS AND/OR WALLS FOR THE PASSAGE OF PIPES, ETC

GENERAL CONDITIONS (CONT.)

.9 SHOP DRAWINGS

CONTRACTOR SHALL SUBMIT, WITHIN TWO WEEKS AFTER BEING AWARDED THE CONTRACT, A MINIMUM OF ONE ELECTRONIC COPY OF CERTIFIED SHOP DRAWINGS FOR REVIEW BY THE ENGINEER OF ALL EQUIPMENT AND MATERIAL SPECIFIED AND SHALL NOT PROCEED WITH ANY OF THIS WORK UNTIL THE DRAWINGS HAVE BEEN RETURNED STAMPED AND SIGNED. THIS REVIEW DOES NOT RELIEVE THE CONTRACTOR OF THE OBLIGATION OF CHECKING THE DRAWINGS HIMSELF OR FURNISHING THE MATERIALS SPECIFIED.

.10 CLEANING UP

THE CONTRACTORS SHALL, AT ALL TIMES, KEEP THE SITE NEAT CLEAN AND FREE FROM ACCUMULATION OF WASTE, MATERIALS AND RUBBISH WHICH ARISE OUT OF THEIR WORK.

.11 REMOVALS ALL MATERIAL DESIGNATED TO BE REMOVED SHALL BE DISPOSED OF OFF SITE BY THIS CONTRACTOR UNLESS STATED ON PLANS TO RETURN TO OWNER.

.12 EQUIVALENT

EQUIPMENT THAT HAS EQUAL CHARACTERISTICS TO THAT SPECIFICALLY MENTIONED IN THIS SPECIFICATION, IS CONSIDERED AS EQUAL AND WILL BE ACCEPTED. THE ENGINEER HAS THE SOLE RIGHT TO DETERMINE AND INTERPRET THE 'EQUAL' QUALITIES. ANY MODIFICATIONS REQUIRED FOR INSTALLATION OF EQUAL PRODUCTS SHALL BE THE CONTRACTOR'S RESPONSIBILITY. EQUIPMENT OF MANUFACTURERS WHO WISH TO HAVE THEIR EQUIPMENT LISTED AS EQUAL, MAY QUALIFY FOR THE 'REVIEWED EQUALS LIST'. SUBMIT ALL REQUIRED TECHNICAL DATA THROUGH THE OFFICE OF THE PROJECT MANAGER A MINIMUM OF TEN (10) DAYS PRIOR TO TENDER CLOSING.

.13 OPERATING AND MAINTENANCE INSTRUCTIONS

THE MANUFACTURER'S REPRESENTATIVE SHALL INSTRUCT THE OWNER IN OPERATION OF MAINTENANCE OF ALL EQUIPMENT AND SYSTEMS INSTALLED. ALL SAFETY AND CONTROL FEATURES SHALL BE THOROUGHLY EXPLAINED. TWO (2) COPIES OF OPERATING AND MAINTENANCE INSTRUCTIONS, TOGETHER WITH ALL APPROVED SHOP DRAWINGS AND SPARE PARTS LIST FASTENED IN A BINDER, SHALL BE SUBMITTED TO THE OWNER. ONE ELECTRONIC COPY SAVED ON A USB KEY IS ALSO REQUIRED.

.14 AS BUILT DRAWINGS

CONTRACTOR SHALL MAINTAIN, AT THE JOB SITE, ONE SET OF PLANS ON WHICH HE SHALL CLEARLY NOTE ALL CHANGES OR DEVIATIONS FROM THE CONTRACT DOCUMENTS, AS THE JOB PROGRESSES. CONTRACTOR SHALL AT THE TIME OF FINAL INSPECTION SUBMIT TO THE OWNERS REPRESENTATIVE, ONE SET OF FINAL 'AS-BUILT' WHITE PRINT DRAWINGS.

.15 FIRE STOPPING

MECHANICAL CONTRACTORS SHALL PROVIDE AND INSTALL A ULC LISTED FIRE STOPPING MATERIAL AT PENETRATION OF MECHANICAL SYSTEMS WHERE SUCH SYSTEMS PENETRATE FIRE AND SMOKE SEPARATIONS AND RATED ASSEMBLIES IN THE STRUCTURE AS INDICATED ON DRAWINGS OR REQUIRED BY AUTHORITIES HAVING JURISDICTION. FIRE STOPPING SHALL BE INSTALLED AS PER MANUFACTURERS APPROVED INSTALLATION REQUIREMENTS AND SHALL BE INSPECTED PRIOR TO ENCLOSING WALLS OR CEILING WHERE FIRE STOPPING HAS BEEN INSTALLED. ACCEPTABLE MANUFACTURERS: A/D FIRE PROTECTION SYSTEMS, 3M FIRE PROTECTION PRODUCTS, HILTI CANADA LTD. AND TEMCO SEALANTS AND COATINGS.

HEALTH AND SAFETY

1.1 REFERENCES

- 1. CSA S269.1-1975 (1998). FALSEWORK FOR CONSTRUCTI PURPOSES. 2. CSA S269.2-M87 (R1998), ACCESS SCAFFOLDING FOR CONSTRUCTION
- 3. FCC NO. 301-1982 STANDARD FOR CONSTRUCTION OPERATIONS. 4. FCC NO. 302-1982 STANDARD FOR WELDING AND CUTTING.

1.2 GENERAL PROTECTION

- 1. CARRY OUT WORK OF THIS CONTRACT PLACING MAXIMUM EMPHASIS ON SAFETY PROTECTION FOR ALL WORKERS AND OTHER AUTHORIZED PERSONS WORKING OR CIRCULATING ON THE CONSTRUCTION SITE AS WELL AS SAFETY FOR CLIENT EMPLOYEES AND GENERAL PUBLIC CIRCULATING ON FEDERAL PROPERTY ADJACENT TO CONTRACTOR'S OPERATIONS.
- PROVIDE TEMPORARY PROTECTION FOR SAFE HANDLING OF EXISTING BUILDING OCCUPANTS AND GENERAL PUBLIC.
- CONTRACTOR MUST BE VIGILANT IN ENSURING THAT NON-AUTHORIZED PERSONS DO NOT CIRCULATE IN DESIGNATED CONSTRUCTION AREAS. PROVIDE APPROPRIATE MEANS BY USE OF BARRICADES, FENCES, WARNING SIGNS, TEMPORARY LIGHTING AND SECURITY GUARD AS DEEMED NECESSARY TO PROTECT SITE AGAINST ENTRY BY
- NON-AUTHORIZED PERSONS DURING THE DAY AND NIGHT. 4. PROVIDE SAFETY BARRICADES AND LIGHTS AROUND WORK AREA AS REQUIRED TO PROVIDE A SAFE WORKING ENVIRONMENT FOR WORKS AND PROTECTION FOR PEDESTRIAN TRAFFIC. TYPE AND QUANTITY OF SAFETY BARRICADES AND LIGHTS TO MEET WITH PROJECT MANAGER'S

HEALTH AND SAFETY (CONT'D)

1.3 CONSTRUCTION SAFETY MEASURES

- 1. OBSERVE AND ENFORCE CONSTRUCTION SAFETY MEASURES REQUIRED BY SAFETY MEASURES NATIONAL BUILDING CODE PART II, THE PROVINCIAL GOVERNMENT OCCUPATIONAL HEALTH AND SAFETY ACT, PROVINCIAL WORKER'S COMPENSATION BOARD, CANADA LABOUR CODE AND MUNICIPAL STATUTES AND AUTHORITIES. AS WELL, ABIDE BY THE FALL PROTECTION AND SCAFFOLDING REGULATIONS ISSUED BY THE PROVINCE OF N.B.
- 2. IN EVENT OF CONFLICT BETWEEN ANY PROVISIONS OF ABOVE
- AUTHORITIES. THE MOST STRINGENT PROVISION WILL APPLY 3. A COPY OF THE CANADA LABOR CODE PART II MAY BE OBTAINED BY CONTACTING: CANADA COMMUNICATIONS GROUP PUBLISHING OTTAWA, ONTARIO K1A OS9 TEL: (819) 956-4800 (PUBLICATION NO.
- L31-85E OR F). 4. ELECTRICAL LOCK-OUT
- .1 BE AWARE THAT ELECTRICAL LOCK-OUT PROCEDURES MUST BE FOLLOWED AND THAT A GUARANTEE OF ISOLATION BE OBTAINED FROM THE PROJECT MANAGER PRIOR TO STARTING WORK ON ANY ELECTRIC CIRCUIT OR FACILITY.
- .2 THE LOCK-OUT PROCEDURES AND GUARANTEE OF ISOLATION SHALL BE IN ACCORDANCE WITH THE SAFETY ACTS, CODES, REGULATIONS AND STANDARDS SPECIFIED IN CLAUSE 3.1
- .3 CONTRACTOR SHALL PREPARE IN WRITING THE ELECTRICAL LOCK-OUT PROCEDURES WHICH HE, HIS SUBCONTRACTORS AND WORKERS INTEND TO FOLLOW AT THE SITE AND IDENTIFY THE STEP BY STEP PROCESS WHICH WILL BE USED TO OBTAIN A GUARANTEE OF ISOLATION FOR EVERY EVENT. THE PROCEDURES SHALL INCLUDE THE USE OF WRITTEN REQUEST/AUTHORIZATION FORMS FOR ISOLATION GUARANTEES. LOCK-OUT TAGS AND A LOG BOOK LISTING ALL EVENTS. IT SHALL ALSO CLEARLY STATE THE DESIGNATED PERSON OR PERSONS AT THE SITE WHO ARE AUTHORIZED TO GIVE THE ELECTRICAL ISOLATION GUARANTEE TO THE CONTRACTOR. OBTAIN THIS INFORMATION WITH THE AID OF THE PROJECT MANAGER.
- 5. CHECK WITH THE PROJECT MANAGER AND THE CLIENT FOR ANY SITE OR CLIENT SPECIFIC LOCK-OUT RULES AND PROCEDURES WHICH MAY HAVE BEEN ESTABLISHED AND IN FORCE AT THE SITE OF WORK. INCORPORATE SUCH SPECIAL OR ADDITIONAL PROCEDURAL STEPS WITHIN THE LOCK-OUT PROCEDURES SPECIFIED HEREIN.
- 6. PROVIDE THE PROJECT MANAGER WITH A WRITTEN COPY OF THE LOCK-OUT PROCEDURES BEFORE THE ELECTRICAL WORK COMMENCES.
- 7. ALL GUARANTEES OF ISOLATION AND COPIES OF ALL LOCK-OUT TAGS SHALL BE KEPT AT THE SITE AND LISTED IN A LOG BOOK FOR THE FULL DURATION OF WORK. MAKE SUCH DATA AVAILABLE FOR VIEWING BY PROJECT MANAGER OR BY ANY AUTHORIZED SAFETY OFFICER.
- 8. ENSURE THAT ALL INDIVIDUALS WORKING ON ELECTRICAL CIRCUITS AND FACILITIES ARE WARE OF THE ELECTRICAL LOCK-OUT PROCEDURES IN FORCE AT THIS SITE. POST SUCH PROCEDURES. LEGIBLY TYPED, AT A COMMON LOCATION ACCESSIBLE TO AND FREQUENTED BY ALL WORKERS.

1.4 PROJECT SAFETY PLAN

- NOTWITHSTANDING OTHER SAFETY REQUIREMENTS SPECIFIED IN THIS SECTION OR SAFETY PLAN IN ANY OTHER SECTION OF THE SPECIFICATIONS, CONTRACTOR SHALL PREPARE A WRITTEN SITE SPECIFIC PROJECT SAFETY PLAN OUTLINING ALL SAFETY RULES PROCEDURES AND SAFE WORK PRACTICES WHICH MUST BE FOLLOWED BY ALL PERSONS ALLOWED ACCESS ON THE PROJECT SITE FOR PURPOSES OF WORKING ON THE CONSTRUCTION OR CIRCULATING ON THE PROJECT SITE. IDENTIFY IN THE SAFETY PLAN ALL KNOWN AND POTENTIAL HAZARDS AND RESULTING SAFETY RULES, PROCEDURES AND SAFE WORK PRACTICES WHICH WILL BE FOLLOWED ON SITE. THE SAFETY PLAN SHALL ADDRESS AND CONFORM TO THE APPLICABLE PROVINCIAL SAFETY ACT, CODES AND REGULATIONS, EXCEPT WHERE A REQUIREMENT TO CONFORM TO A MORE STRINGENT ACT OR REGULATION HAS BEEN SPECIFIED ELSEWHERE IN THE CONTRACT DOCUMENTS, THE MORE STRINGENT REQUIREMENT SHALL GOVERN. DEVELOP THE SAFETY PLAN IN COLLABORATION WITH ALL SUBCONTRACTORS, WHO WILL BE CARRYING OUT WORK AT THE SITE AT ANY GIVEN TIME DURING THE CONSTRUCTION PERIOD, TO ENSURE THAT ALL PERTINENT TYPES AND NATURE OF WORK ACTIVITIES ARE ADDRESSED IN THE PLAN BY RELATED SAFETY RULES, PROCEDURES AND PRACTICES WHICH MUST BE FOLLOWED WHEN CARRYING OUT SUCH WORK. IT IS THE CONTRACTOR'S RESPONSIBILITY TO BECOME FAMILIAR WITH ALL APPLICABLE SAFETY ACTS, REGULATIONS, CODES AND CONTRACT REQUIREMENTS AND DEVELOP STANDARD OPERATING PROCEDURES (SOP) AND SAFE WORK PRACTICES WHICH SHALL INCORPORATE CLEAR AND SPECIFIC CONTROL MEASURES, APPLICABLE SAFETY RULES. PROCEDURES AND PRACTICES IN FORCE AND MANDATORY AT THE PROJECT SITE.
- POST THE SAFETY PLAN ON THE CONSTRUCTION SITE, PRIOR TO COMMENCEMENT OF WORK, LOCATE IN A COMMON AREA, VISIBLE FOR ALL WORKERS AND OTHER PERSONS ACCESSING THE SITE TO SEE. ENSURE THAT ALL EMPLOYEES INCLUDING SUB-CONTRACTOR'S PERSONNEL ARE ADVISED OF SUCH SAFETY PLAN AND OF THE POSTED LOCATION.
- 3. USE APPROPRIATE MEASURES AND ENSURE THAT ALL WORKERS, AND AUTHORIZED PERSONS, ENTERING THE CONSTRUCTION SITE ARE NOTIFIED OF AND ABIDE BY THE SAFETY RULES, PROCEDURES AND SAFE WORK PRACTICES INDICATED IN THE POSTED SAFETY PLAN. ANY PERSONS NOT COMPLYING WITH THESE RULES AND REGULATIONS SHALL NOT BE PERMITTED ON SITE.
- 4. DEVELOP THE SAFETY PLAN IMMEDIATELY UPON NOTIFICATION OF CONTRACT AND SUBMIT ONE COPY TO THE PROJECT MANAGER PRIOR TO THE COMMENCEMENT OF WORK, REVISE SUCH PLAN WHEN CHANGES TO PLANNED WORK PROCEDURES OCCUR: WHEN NEW SUB-CONTRACTORS NOT COVERED IN THE ORIGINAL PLAN ARRIVE ON SITE OR WHEN ANY POTENTIAL OR NEW HAZARDS ARE IDENTIFIED, INCLUDING THOSE INDICATED BY A PROVINCIAL SAFETY OFFICER OR FROM ANY OTHER AUTHORITY HAVING JURISDICTION. SUBMIT REVISED COPIES OF THE SAFETY PLAN TO PROJECT MANAGER, OR HIS REPRESENTATIVE. FOR INFORMATION AND
- RETENTION PURPOSES ONLY. 5. SUBMISSION OF THE SAFETY PLAN AND ANY REVISED VERSIONS TO THE PROJECT MANAGER IS FOR INFORMATION AND REFERENCE PURPOSES ONLY. IT SHALL NOT BE CONSTRUED TO IMPLY APPROVAL BY PROJECT MANAGER AND SHALL NOT RELIEVE THE CONTRACTOR OF ANY LEGAL OBLIGATIONS FOR THE PROVISION OF CONSTRUCTION SAFETY, AS SPECIFIED BY THE PROVINCIAL SAFETY ACTS, CODES AND REGULATIONS.

HEALTH AND SAFETY (CONT'D)

1.5 HAZARDOUS PRODUCTS

- .1 COMPLY WITH REQUIREMENTS OF WORKPLACE HAZARDOUS MATERIALS PRODUCTS INFORMATION SYSTEM (WHMIS) REGARDING USE, HANDLING, STORAGE, AND DISPOSAL OF HAZARDOUS MATERIALS, AND REGARDING LABELING AND PROVISION OF MATERIAL SAFETY DATA SHEETS ACCEPTABLE TO LABOUR CANADA AND HEALTH AND WELFARE CANADA.
- .2 DELIVER COPIES OF WHMIS DATA SHEETS TO PROJECT MANAGER ON DELIVERY OF MATERIALS.
- .3 ALL DATA SHEETS MUST BE POSTED ON SITE, IN A COMMON AREA, VISIBLE TO ALL WORKERS, AND IN LOCATIONS ACCESSIBLE TO TENANT'S EMPLOYEES WHEN WORK OF THIS CONTRACT INCLUDES CONSTRUCTION ACTIVITIES ADJACENT TO OCCUPIED AREAS.
- .4 MAKE ALL EFFORTS TO SELECT AND USE MATERIALS (I.E., ADHESIVES, SOLVENTS, PRODUCTS CLEANERS, ETC.) FOR THE TYPE AND NATURE OF WORK TO BE CARRIED OUT WHICH ARE THE LEAST HAZARDOUS PRODUCTS AVAILABLE, OF LOW VOC CONTENT OR LOW TOXICITY TYPE PRODUCTS AND EMITTING LOW NOXIOUS ODORS. SELECT PRODUCTS KNOWN TO BE FRIENDLY TO THE ENVIRONMENT AND TO HUMAN HEALTH. COMMUNICATE THIS INTENT TO SUB-CONTRACTORS, SUPPLIERS AND MANUFACTURERS.
- .5 WHERE THE USE OF HAZARDOUS AND TOXIC PRODUCTS CANNOT BE AVOIDED: .1 ADVISE PROJECT MANAGER BEFOREHAND OF THE PRODUCT(S) INTENDED FOR USE, SUBMIT WHMIS DATA SHEETS.
- .2 SCHEDULE, IN CONJUNCTION WITH THE PROJECT MANAGER, TO CARRY OUT THE WORK DURING "OFF HOURS" WHEN TENANTS HAVE LEFT THE BUILDING.
- .3 PROVIDE ADEQUATE MEANS OF VENTILATION.

1.6 FIRE SAFETY REQUIREMENTS

- .1 COMPLY WITH REQUIREMENTS OF STANDARD OF BUILDING CONSTRUCTION REQUIREMENTS OPERATIONS FCC NO. 301 AND STANDARD FOR WELDING AND CUTTING FCC 302 ISSUED BY FIRE COMMISSIONER OF CANADA.
- .2 ALL PERSONS PERFORMING WELDING OR CUTTING OPERATIONS MUST BE QUALIFIED TO AT LEAST PROVINCIAL LEGISLATION. SEE TECHNICAL SPECIFICATION TO DETERMINE IF MORE STRINGENT QUALIFICATIONS SPECIFIED. BEFORE ANY HOT WORK IS STARTED. REQUEST A HOT WORK PERMIT AND SITE AUTHORITY MUST BE NOTIFY.
- .3 WELDING OR CUTTING OPERATIONS SHALL NOT BE UNDERTAKEN WITHOUT PRIOR AUTHORIZATION IN THE FORM OF A WRITTEN PERMIT FROM THE PROJECT MANAGER.
- .4 THE PERMIT SHALL BE COMPLETED IN FULL, ONE COPY BEING RETAINED BY THE PROJECT MANAGER AND ONE COPY BY THE WORKER(S). THE PERMIT SHALL BE SIGNED BY THE PROJECT MANAGER BEFORE WORK CAN BE STARTED AND BY THE WORKER WHEN THE WORK HAS BEEN COMPLETED. THE CONTRACTOR IS TO SUBMIT TO THE PROJECT MANAGER A COPY OF THE PERMIT, SIGNED BY THE WORKERS AFTER COMPLETION OF THE WORK.
- .5 PRIOR TO THE ISSUANCE OF THE PERMIT, THE ENGINEER SHALL INSPECT THE WORK SITE TO ENSURE THE FIRE PROTECTION EQUIPMENT IS IN PLACE BEFORE WELDING OR CUTTING OPERATIONS TAKE PLACE.
- .6 ALL WELDING EQUIPMENT, TORCHES SHALL BE OF AN APPROVED TYPE.
- .7 SEPARATE PERMITS ARE REQUIRED FOR EACH AND EVERY OPERATION

1.7 FIRE PROTECTION ALARM SYSTEMS .1 FIRE PROTECTION AND ALARM SYSTEMS SHALL NOT BE:

- .1 OBSTRUCTED
- .2 SHUT-OFF
- .3 LEFT INACTIVE AT THE END OF A WORKING DAY OR SHIFT. .2 FIRE HYDRANTS, STANDPIPES AND HOSE SYSTEMS SHALL NOT BE USED FOR
- OTHER THAN FIRE FIGHTING PURPOSES. .3 THE CONTRACTOR IS LIABLE FOR ALL COSTS INCURRED, FROM THE FIRE DEPARTMENT AND THE BUILDING OWNER, RESULTING FROM SETTING OFF

FALSE ALARMS. 1.8 OVERLOADING

- .1 ENSURE NO PART OF WORK IS SUBJECT TO A LOAD WHICH WILL ENDANGER ITS SAFETY OR WILL CAUSE PERMANENT DEFORMATION
- 1.9 FALSEWORK .1 DESIGN AND CONSTRUCT FALSEWORK IN ACCORDANCE WITH CSA S269.1.
- 1.10 SCAFFOLDING .1 DESIGN AND CONSTRUCT AND MAINTAIN SCAFFOLDING IN RIGID, SECURE AND
- SAFE MANNER IN ACCORDANCE WITH CAN/CSA S269.2. .2 ERECT SCAFFOLDING INDEPENDENT OF WALLS. REMOVE PROMPTLY WHEN NO LONGER REQUIRED.
- 1.11 CONFINED SPACES .1 ALL WORK IN CONFINED SPACES SHALL BE CARRIED OUT IN COMPLIANCE WITH THE CANADA LABOUR CODE, PART II, SECTION 11.
- .2 PRIOR TO COMMENCEMENT OF WORK WITHIN CONFINED SPACE, NOTIFY THE PROVINCIAL OCCUPATIONAL HEALTH AND SAFETY OFFICER OF THE TYPE OF CONFINED SPACE AND NATURE OF WORK TO BE CARRIED OUT THEREIN. PROVIDE NOTIFICATION SUFFICIENTLY IN ADVANCE TO ALLOW FOR SAFETY OFFICER TO CARRY OUT A SITE INSPECTION AS DEEMED REQUIRED BY HIM.
- .3 CONTRACTOR SHALL PROVIDE AND MAINTAIN ALL EQUIPMENT AS REQUIRED BY ANY PERSON TO ENTER AND/OR PERFORM WORK IN A SAFE MANNER. IN COMPLIANCE WITH THE CANADA OCCUPATIONAL SAFETY AND HEALTH REGULATIONS, PART XI.
 - .1 AT THE PROJECT MANAGER'S REQUEST, THE CONTRACTOR AGREES TO PROVIDE TO AAFC EMPLOYEES OR ITS CONSULTANTS, ALL NECESSARY EQUIPMENT TO ENTER THE CONFINED SPACE AND THE CONTRACTOR ACKNOWLEDGES THAT HE/SHE IS RESPONSIBLE FOR
- THE SAFETY AND EFFICACY OF THIS EQUIPMENT. .4 CONTRACTOR SHALL PROVIDE AND MAINTAIN TRAINING, AS REQUIRED BY THE CANADA LABOUR CODE, PART II, SECTION 11. .1 CONTRACTOR AND/OR HIS EMPLOYEES SHALL PROVIDE PROOF OF
- TRAINING AND QUALIFICATIONS WHEN REQUESTED BY THE PROJECT MANAGER. .5 CONTRACTOR SHALL PROVIDE THE PROJECT MANAGER WITH A COPY OF AN "ENTRY PERMIT" FOR EACH AND EVERY ENTRY INTO THE CONFINED SPACE

TO ENSURE COMPLIANCE WITH THE CANADA LABOUR CODE, PART II, SECTION

.1 CONTRACTOR TO PROVIDE THE PROJECT MANAGER WITH A COPY

- .6 CONTRACTOR SHALL HAVE A HAZARDOUS ASSESSMENT OF THE CONFINED SPACE PERFORMED.
- OF THE HAZARDOUS ASSESSMENT. .7 FOR THE PURPOSES OF THIS CONTRACT, "CONFINED SPACE" MEANS AN ENCLOSED OR PARTIALLY ENCLOSED SPACE THAT:
 - .1 IS NOT DESIGNED OR INTENDED FOR HUMAN OCCUPANCY EXCEPT FOR THE PURPOSE OF PERFORMING WORK. HAS RESTRICTED MEANS OF ACCESS AND EGRESS, AND

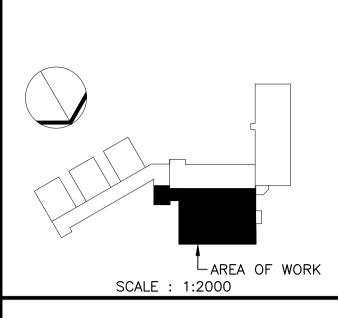
MAY BECOME HAZARDOUS TO AN EMPLOYEE ENTERING IT DUE TO:

THE MATERIALS OR SUBSTANCES IN IT, OR ANY OTHER CONDITIONS RELATING TO IT. .8 IN EVENT OF CONFLICT BETWEEN THESE REQUIREMENTS AND THOSE OF PROVINCIAL GOVERNMENT, LABOUR CANADA, OR HEALTH AND WELFARE CANADA, MORE STRINGENT REQUIREMENTS SHALL APPLY.

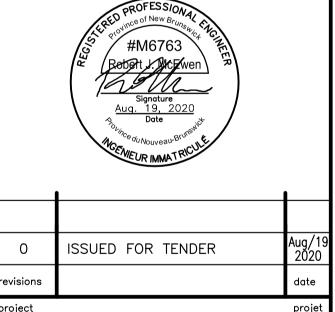
ITS DESIGN, CONSTRUCTION, LOCATION OR ATMOSPHERE,

.8 IN EVENT OF CONFLICT BETWEEN THESE REQUIREMENTS AND THOSE OF PROVINCIAL GOVERNMENT, LABOUR CANADA, OR HEALTH AND WELFARE CANADA, MORE STRINGENT REQUIREMENTS SHALL APPLY.

Agriculture and Agriculture et Agri-food Canada Agroalimentaire Canada







AAFC BUILDING ' FREDERICTON, NB **GROWTH ROOM HUMIDIFICATION**

MECHANICAL SPECIFICATION

lesigned B. BELLEFLEUR dessiné Irawn G WARDROP approuv pproved R. McEWEN PWGSC Project Manager Administrateur de projets TPSG

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CONTROLS SPECIFICATIONS

.1 MAINTENANCE DATA AND SERVICE

PROVIDE MAINTENANCE DATA FOR INCORPORATION INTO MAINTENANCE MANUAL. CHECK AND ADJUST CONTROL SYSTEMS 2 TIMES DURING THE WARRANTY PERIOD. REPORT IN WRITING, RESULTS OR ADJUSTMENTS MADE. PROVIDE AS-BUILT INFORMATION.

<u>.2 WARRANTY</u>

PROVIDE A WRITTEN WARRANTY, STATING THAT THE CONTROLS AND INSTRUMENTATION ARE WARRANTED AGAINST FAULTY MATERIAL AND WORKMANSHIP FOR A PERIOD OF ONE YEAR FROM THE DATE OF THE FINAL CERTIFICATE OF COMPLETION.

.3 EQUIPMENT AND DEVICES
PROVIDE CONTROLS FOR NEW EQUIPMENT AS INDICATED. INCLUDE GRAPHICS UPDATES.

.4 START-UP AND ADJUSTMENT

UPON COMPLETION OF INSTALLATION, TEST, ADJUST AND REGULATE CONTROLS OR SAFETY EQUIPMENT PROVIDED UNDER THIS SECTION. ADJUST AND PLACE IN OPERATING CONDITION.

.5 BUILDING CONTROLLER

.1 GENERAL REQUIREMENTS

- 1. THE CONTROL SYSTEM SHALL BE AS SHOWN AND CONSIST OF A HIGH-SPEED, PEER-TO-PEER NETWORK OF DIRECT DIGITAL CONTROL (DDC), BACNET/IP LISTED ADVANCED APPLICATION. LATEST GÉNERATION CONTROLLERS, IN ACCORDANCE WITH ASHRAE STANDARD 135-2012. SYSTEMS USING GATEWAYS TO ROUTE PROPRIETARY DEVICES AND OBJECTS TO BACNET ARE NOT ACCEPTABLE.
- .2 PROVIDE ONE OR MORE NATIVE BACNET APPLICATION CONTROLLERS AS NEEDED FOR EACH GROWTH ROOM THAT ADEQUATELY COVER ALL OBJECTS LISTED ON DRAWINGS. ALL CONTROLLERS SHALL INTERFACE TO BUILDING CONTROLLER THROUGH EITHER MS/TP LAN USING BACNET PROTOCOL, OR ETHERNET LAN USING BACNET OVER ETHERNET OR BACNET TCP/IP. NO GATEWAYS SHALL BE USED. CONTROLLERS SHALL INCLUDE INPUT, OUTPUT AND SELF-CONTAINED LOGIC PROGRAM AS NEEDED FOR COMPLETE CONTROL OF UNITS. CONTROLLERS SHALL BE FULLY PROGRAMMABLE USING GRAPHICAL PROGRAMMING BLOCKS. PROGRAMMING TOOL SHALL BE RESIDENT ON OPERATOR WORKSTATION AND BE THE SAME TOOL AS USED FOR THE BUILDING CONTROLLER. NO AUXILIARY OR NON-BACNET CONTROLLERS SHALL BE USED.

.3 CONTROL WIRING

.1 CONTROL WIRING NETWORK GENERAL:

ALL FIELD WIRING SHALL BE IN EMT EXCEPT FOR INSIDE THE GROWTH ROOMS. USE PVC CONDUIT (AND BOXES) INSIDE THE GROWTH ROOMS. FASTEN THE CONDUITS TO THE WALL USING APPROPRIATE CLAMPS. FOR WIRING UNDER 70 VOLTS, USE FT4 (NON-PLENUM RATED), MINIMUM #24AWG.

ALL HVAC/EMCS CABLING SHALL BE COLOR CODED 'GREEN'. CONFIRM CABLE CODING COLOR WITH OWNER'S REPRESENTATIVE PRIOR TO ORDER.

.2 PLENUM CABLE SHALL BE SUPPORTED AT INTERVALS NOT MORE THAN 1.5M (5FT) WITH APPROPRIATELY PLENUM RATED 'J' HOOKS, CABLE TRAYS, OR VELCRO-WRAPS. CABLE-TIES (TY-RAP) IS NOT PERMITTED. ALL SUPPORTS/FASTENERS SHALL SECURE CABLE BUT PERMIT REASONABLE PULL/REMOVAL/ACCESS TO INDIVIDUAL CABLE

.3 NETWORK / LAN CABLING:

MINIMUM ETHERNET/IP CABLING REQUIREMENTS: IEEE STANDARD 802.3, ANSI/TIA/EIA-568-C.1, C.3 CATEGORY 6A (CAT6A), UTP-8, SHIELDED, ALTERNATE MEDIUM: OPTICAL FIBÉR CABLE.

100BASE-TX THRU 1000BASE-TX: MINIMUM THROUGHPUT 100MBPS - 1000MBPS). MAXIMUM PERMISSIBLE LENGTH FOR CAT6 SHALL BE 70

METERS (230 FT). OPTICAL FIBER LENGTH UNLIMITED. STANDARD OF ACCEPTANCE: BELDEN 10GX

.4 MS/TP FIELD CONTROLLER / DEVICE SERIAL CABLING (DATA BUS) NETWORK:

IEEE STANDARD 802.3, ANSI/ASHRA STANDARD 135-2012, ANSI/TIA/EIA-485, ANSI/TIA/EIA-568-C.2 MULTI-CONDUCTOR DATA CABLE SHALL HAVE STRANDED. TWISTED COPPER INSULATED OVERALL CABLE TO BE COMPLETE WITH SHIELD PLUS TINNED COPPER BRAID. DRAIN WIRE, AND PVC JACKET RATED FT4 FOR CONDUIT OR FLAMMAREST/FEP RATED FT6 FOR OPEN PLENUM TO

UL STANDARD 910. MAXIMUM CABLE IMPEDANCE SHALL BE 1200HMS (+/-10%).

MAXIMUM PERMISSIBLE LENGTH IS 1220 METERS (4000FT). ESTABLISH SYSTEM BAUD RATE AT MAXIMUM OF 38400K. OR 76800K MAXIMUM BAUD RATE USING BACNET COV (CHANGE OF VALUE) PROTOCOL.

STRANDS SHALL REMAIN TWISTED AT TERMINATION(S). ENSURE COMMON GROUND REFERENCE FOR ALL DEVICES. CABLE SHIELD IS NOT PERMITTED FOR USE AS GROUND

REFERENCE. SHIELD DRAIN WIRE TO BE EARTH GROUNDED ON ONE END OF CABLE RUN ONLY. GROUND THROUGH A 100 OHM CURRENT-LIMITING RESISTOR. PHYSICAL CONFIGURATIONS: MAINTAIN SERIAL NETWORK

TOPOLOGY. MINIMIZE SERIAL DROP LEGS. STAR CONFIGURATIONS NOT PERMITTED. REFER TO NETWORK SCHEMATIC, WHERE PROVIDED. INSTALL 100 OHM END OF LINE RESISTORS FOR EACH SERIAL TRUNK/LEG. CABLE CONDUCTORS SHALL HAVE NOMINAL CAPACITANCE ('LOW CAP') OF LESS THAN 50PF (PICOFARAD) PER METER (<16PF/FT) AND A DISTRIBUTED CAPACITANCE BETWEEN CONDUCTORS AND SHIELD OF LESS THAN 100PF/M (<31PF/FT).

INPUT/OUTPUT DEVICE WIRING:

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DATA CABLE BETWEEN CONTROLLER AND FIELD DEVICES/SENSORS SHALL BE STRANDED, TWISTED COPPER CONDUCTORS; MINIMUM TWO (2) INSULATED CONDUCTORS, UNLESS OTHERWISE STIPULATED FOR THE DEVICE. OVERALL CABLE TO BE COMPLETE WITH SHIELD PLUS TINNED COPPER BRAID, AND PVC JACKET RATED FT4 FOR CONDUIT OR FLAMMAREST/FEP RATED FT6 FOR OPEN PLENUM TO UL STANDARD 910.

.4 FIELD DEVICES

1. CONTRACTOR TO PROVIDE RELAYS, SENSORS, TRANSDUCERS, TRANSFORMERS AND ANY OTHER DEVICES REQUIRED FOR A COMPLETE & FUNCTIONAL DDC SYSTEMS.

2. CONTROLS CONTRACTOR TO SUPPLY AND INSTALL NEW COMBINED TEMPERATURE AND HUMIDITY SENSOR IN EACH GROWTH ROOM. THE COMBINED TEMPERATURE AND HUMIDITY SENSOR SHALL BE EQUAL TO VAISALA MODEL HMT333 - REMOTE SENSOR VERSION (PART # HMT330-3E0A101BCAK120A1AADBAA1) C/W:

2.1. MICROPROCESSOR-BASED TRANSMITTER: BACKLIT GRAPHIC LCD DISPLAY WITH KEYPAD, NEMA 4 / IP65 WALL-MOUNT HOUSING WITH 2X PLASTIC PLATE (P/N 214829) TO FACILITATE THROUGH-THE-WALL WIRING; CABLE CONNECTIONS: CABLE GLAND M20 X 1.5

PROBE MOUNTING CLAMPS

POWER SUPPLY: 0 TO 35 VDC, 24 VAC 2.4. MEASURED PARAMETERS: RH+T

2.5. OUTPUTS: 2x4-20MA (HUMIDITY AND TEMPERATURE) + RS-485 SERIAL INTERFACE (GALVANICALLY ISOLATED) MODBUS RTU PROTOCOL

2.6. MEASUREMENT UNITS: METRIC

2.7. HUMIDITY SENSOR: HUMICAP 180R (GENERAL PURPOSE AND HIGH CHEMICAL CONCENTRATIONS)

REMOTE PROBE: INTEGRAL PPS PLASTIC GRID & STAINLESS STEEL NETTING, 2 METERS CABLE WITH CABLE GLAND AGRO M20 X 1.5 WITH SPLIT SEAL (P/N HMP247CG)

2.9. MEASURING RANGES: 0-100% RH AND 0 TO +60 DEG C 2.10. ISO9001 COMPLIANT FACTORY CALIBRATION

NOTE: CONTROLS CONTRACTOR SHALL PROVIDE MODEBUS TRU TO BACNET MSTP GATEWAY AS REQUIRED FOR INTEGRATION WITH EXISTING BUILDING MANAGEMENT SYSTEM

.5 SEQUENCE OF OPERATIONS.

.1 NEW HUMIDIFICATION SYSTEM CONTROL SEQUENCE

.1 HUMIDIFIER WILL BE ENABLED/DISABLED BY THE BINARY VARIABLE WHICH CONTROLS THE FAN COIL UNIT FOR THE RESPECTIVE ROOM; THAT IS, IS THE FAN UNIT IS ENABLED/OPERATING THE HUMIDIFIER WILL ALSO BE ENABLED TO OPERATE.

.2 ENABLED MODE:

.1 THE HUMIDITY SETPOINT SHALL BE USER DEFINED AND WILL HAVE A DEFAULT SETTING OF 50% RH. THE BUILDING MANAGEMENT SYSTEM SHALL READ THE RELATIVE HUMIDITY VALUE FOR THE NEW HUMIDITY SENSOR. WHEN THE HUMIDITY LEVEL DROPS TO 5% BELOW THE SETPOINT, THE BUILDING MANAGEMENT SYSTEM SHALL SEND A SIGNAL TO THE NEW HUMIDIFICATION SYSTEM TO START AND RUN CONTINUOUSLY UNTIL THE SETPOINT IS ACHIEVED. ONCE THE SETPOINT IS ACHIEVED, THE HUMIDIFICATION SHALL STOP. IF THE SETPOINT CANNOT BE ACHIEVED AFTER THE UNIT HAS BEEN RUNNING FOR A PERIOD OF 1 HOUR, AN ALARM SHALL BE DISPLAYED ON THE BUILDING MANAGEMENT SYSTEM. BOTH THE ALARM DELAY AND THE START SETPOINT OFFSET AS REFERENCED ABOVE WILL BE USER DEFINABLE

.3 DISABLED MODE:

.1 THE HUMIDIFICATION SYSTEM SHALL BE DISABLED.

.6 GENERAL NOTES:

.1 THE NEW HUMIDIFICATION SYSTEM MUST BE INTEGRATED INTO THE EXISTING BUILDING MANAGEMENT SYSTEM COMPLETE WITH GRAPHICS, ALARMING AND TRENDING.

.1 GRAPHICS: SHOW ALL PHYSICAL AND PSEUDO POINTS WHICH INFLUENCE THE CONTROL ALGORITHM

SHOW CONTROLLER 'PERCENTAGE' VALUES AND THRESHOLD VALUES FOR CONTROLLING ASSOCIATED BINARY POINTS SUCH AS HUMIDIFIER START/STOP.

TRENDING:

.1 HAVE GRAPHICAL TREND LINK WHERE POSSIBLE. .2 SHOW MULTI/COMBINED TREND LOG FOR TEMP, HUMIDITY, ROOM/FAN STATUS AND OAT WITH

INTERVALS OF 30 MINUTES FOR EACH ROOM. .3 ALARMS:

.1 DISABLE ALL ALARMS ASSOCIATED WITH ROOM IF ROOM SYSTEM IS OFF.

ALARMS AND TREND-LOGS TO BE SETUP AS PER CLIENT'S REQUIREMENTS.

.3 ACCEPTABLE MANUFACTURER: ALERTON

MECHANICAL SPECIFICATIONS PLUMBING SYSTEMS

.1 GENERAL

ALL PLUMBING SHALL BE INSTALLED IN ACCORDANCE WITH THE NATIONAL PLUMBING CODE OF CANADA, LATEST EDITION, CONTRACTOR SHALL CONDUCT AND PAY FOR ALL PERMITS AND TESTS. ALL TESTS SHALL BE CARRIED OUT IN THE PRESENCE OF THE ENGINEER OR HIS REPRESENTATIVE AND/OR AUTHORITY HAVING

JURISDICTION. THE CONTRACTOR SHALL BE RESPONSIBLE FOR DRAINING AND REFILLING OF SYSTEMS AS REQUIRED TO COMPLETE THE PROJECT.

ALL WATER PIPES AND COMPRESSED AIR PIPES SHALL BE PRESSURE TESTED FOR 2 HOURS IN ACCORDANCE WITH NPCC SECTION 2.

MECHANICAL SPECIFICATIONS (CONT.

PLUMBING SYSTEMS CONT.

.2 PIPE MATERIALS PIPE MATERIALS SHALL BE AS SPECIFIED BELOW:

RO WATER	NPS 1/2 - 2	HIGH PURITY, PVDF THERMOPLASTIC FLUOROPOLYMER, SCHEDULE 80 PRESSURE PIPE AND FITTING MEETING REQUIREMENTS OF ASTM-D-1785					
	1/4" - 3/8" OD TUBING	BLACK POLYURETHANE 95A TUBING WORKING PRESSURE: 1827 KPA AT 24°C (265 PSI AT 75°F)					
	NPS 1/2 - 2	COPPER TYPE 'L' HARD TO ASTM B88M					
COMPRESSED AIR	1/4" - 3/8" OD TUBING	BLACK POLYURETHANE 95A TUBING WORKING PRESSURE: 1827 KPA AT 24°C (265 PSI AT 75°F)					

PVC OR OTHER COMBUSTIBLE PIPING WITH A SMOKE-DEVELOPMENT RATING GREATER THAN 50 SHALL NOT BE USED WHERE EXPOSED OR IN CONCEALED CEILINGS/SPACES THAT ARE USED AS AIR PLENUMS FLAME-SPREAD AND SMOKE DEVELOPMENT CAN/ULC-S102.2 TESTING STANDARD.

<u>.3 UNIONS</u>

PROVIDE UNIONS ON WATER LINES (INCLUDING RO WATER) CONNECTED TO ALL EQUIPMENT.

.4 VALVES & GAUGES RO WATER:

FOR 9.5MM (3/8") OD TUBING (IN ROOM): FDA APPROVED, POLYPROPYLENE WITH EPDM O-RINGS, QUICK CONNECT/PUSH IN TUBE, 1/4 TURN SHUT OFF BALL VALVE. FOR 13MM (1/2") PIPING (IN CEILING SPACE)

FDA APPROVED, FULL PORT PVC BALL VALVE WITH EPDM O-RINGS, PTFE SEATS WITH EPDM CUSHIONS, FREE FLOATING BALL AND THREADED END CONNECTIONS.

COMPRESSED AIR:

FOR 6 MM (1/4") OD TUBING (IN ROOM): 1/4 TURN SHUT OFF, QUICK CONNECT/PUSH IN TUBE, POLYPHENYLENE SULFIDE (PPS) BALL VALVE WITH WORKING PRESSURE UP TO 150 PSI (APPROVED FOR COMPRESSED AIR APPLICATIONS)

FOR 13MM (1/2") PIPING (IN CEILING SPACE) 2-PIECE, FORGED BRASS BALL VALVE, FULL PORT, CHROME PLATED BALL AND SOLDERED END CONNECTIONS

PRESSURE GAUGE - WEKSLER EA14 0-160 PSI NOTE: ALL COMPRESSED AIR COPPER PIPING, FITTINGS, VALVES, ETC. SHALL BE BRAZED USING SILVER SOLDER.

PIPING SHALL BE SUSPENDED FROM THE BUILDING STRUCTURE WITH GRINNELL, OR EQUAL, PIPE HANGERS AND STEEL RODS ATTACHED TO THE STEEL STRUCTURE BY MEANS OF "C" CLAMPS.

USE FIG. 269 FOR HORIZONTAL PIPES.

FIG. CT-121C FOR VERTICAL PIPES, USE C-STYLE (NYLON OR STAINLESS STEEL) CLAMPS FOR FASTENING THE TUBING TO THE WALLS IN THE GROWTH ROOMS. USE STAINLESS STEEL SCREWS.

HANGER SPACING IN CEILING SPACE SHALL BE AS PER THE FOLLOWING SCHEDULE:

PIPE DIAMETER	MAX. SPACING	STEEL RODS DIA.
1/2" (12mm)	5'-0" (1500mm)	3/8" (9mm)
3/4" (19mm)	5'-0" (1500mm)	3/8" (9mm)
1" (25mm)	6'-0" (1800mm)	3/8" (9mm)
1-1/4" (32mm)	7'-0" (2100mm)	3/8" (9mm)
1-1/2" (37mm)	8'-0" (2400mm)	1/2" (12mm)
2" (50mm)	8'-0" (2400mm)	1/2" (12mm)
2-1/2" (62mm)	10'-0" (3000mm)	1/2" (12mm)
3" (75mm)	10'-0" (3000mm)	1/2" (12mm)

THE 6 MM (1/4") OD TUBING AND THE 9.5MM (3/8") OD TUBING IN THE CEILING SPACÉ SHALL ALSO BE SUPPORTED. USE THE SAME SPACING AND STEEL ROD DIAMETER AS FOR A 12MM (1/2") PIPE.

.6 GRADING OF PIPES

ALL HORIZONTAL LINES OF WATER SHALL BE PITCHED SO THAT THEY MAY BE COMPLETELY DRAINED THROUGH RISERS, FIXTURES, OR DRIPS.

.7 IDENTIFICATION APPLY EXISTING IDENTIFICATION SYSTEM TO NEW WORK. INDICATE

DIRECTION OF FLOW USING ARROWS.

.8 REMOVALS

THE EXISTING NOZZLES C/W WITH MOUNTING BRACKETS AND THE EXISTING CONTROL PANELS SHALL BE TURNED OVER TO THE CLIENT. THIS CONTRACTOR SHALL BE RESPONSIBLE FOR REMOVAL AND DISPOSAL OF THE REMAINDER OF EXISTING EQUIPMENT, PIPING AND ACCESSORIES MADE REDUNDANT BY THIS CONTRACT.

.9 PIPE SEALING ALL PIPE PENETRATION. IN AND OUT OF THE GROWTH ROOMS. SHALL BE SEALED USING NON-SAG, NON-HARDENING, ELASTOMERIC, PREMIUM URETHANIZED SEALANT.

MECHANICAL SPECIFICATIONS (CONT.)

.10 FIRE STOPPING

THE CONTRACTOR SHALL PROVIDE FIRE STOPPING AND/OR SEALING OF ALL PIPING TO MAINTAIN INTEGRITY OF ALL FIRE SEPARATIONS. ADD LISTED & APPROVED FIRE STOPPING SYSTEMS FOR ALL PENETRATIONS. ACCEPTABLE MANUFACTURERS: A/D FIRE PROTECTION SYSTEMS, 3M FIRE PROTECTION PRODUCTS, HILTI CANADA LTD. AND TEMCO SEALANTS AND COATINGS. SUBMIT SHOP DRAWINGS FOR APPROVAL

.11 CLEANING AND STARTUP

THE SYSTEMS SHALL BE CLEANED, FLUSHED AND THEN BE STARTED. ALL EQUIPMENT SHALL BE FULLY SERVICED BEFORE START-UP. AS PER MANUFACTURER'S RECOMMENDATIONS.

.12 EQUIPMENT

1. NEW PACKAGED COMPRESSED AIR 'IN-SPACE (DIRECT ROOM)' HUMIDIFICATION SYSTEM EQUAL TO CONAIR MODEL MINI II. THE NEW, SELF-CONTAINED HUMIDIFICATION SYSTEM SHALL USE COMPRESSED AIR TO ATOMIZE WATER, DRAWN THROUGH A VACUUM VALVE AT ATMOSPHERIC PRESSURE, WITHIN THE AIR STREAM. ALL MATERIALS SHALL BE SUITABLE FOR USE WITH REVERSE OSMOSIS (RO) WATER.

1.1. SYSTEM TO BE COMPLETE WITH:

1.1.1. OPERATING AND SAFETY CONTROLS TO ENSURE AN AUTOMATIC AND FAIL SAFE SYSTEM.

1.1.2. TWO (2) NOZZLES TO SHUT DOWN AUTOMATICALLY ON LOSS OF AIR PRESSURE WITHOUT DRIPPING EVEN WHEN WATER PRESSURE IS MAINTAINED TO SYSTEM.

1.1.3. LINEAR OUTPUT ADJUSTMENT AS AIR PRESSURE IS REDUCED TO NOZZLE AND CONTINUES TO PRODUCE DROPLETS NO LARGER THAN 10 MICRONS IN SIZE AS AIR PRESSURE REDUCES. 1.1.4. VACUUM VALVE TO PROVIDE WATER SUPPLY TO NOZZLES AT ATMOSPHERIC

PRESSURE PILOT OPERATED AIR REGULATOR TO ALLOW VARIABLE SUPPLY AIR PRESSURE TO

CONTROL PANEL WITH BUILT-IN AIR PRESSURE REGULATOR, REPEAT CYCLE TIMER, ON/OFF SWITCH, PILOT LIGHT AND AIR PRESSURE GAUGE.

1.2. THE TWO (2) ATOMIZING NOZZLES SHALL BE:

1.2.1. CONSTRUCTED OF STAINLESS STEEL AND FACTORY MOUNTED ON A POWDER

COATED STEEL CABINET.

C/W AIR OPERATED PISTON 1.2.3. SERVICEABLE WITHOUT REMOVAL FROM SYSTEM

1.2.4. WITHOUT OBSTRUCTION AFTER ORIFICE

1.3. THE CONTROL PANEL TO INCLUDE:

1.3.1. NEMA 12 CONSTRUCTION 1.3.2. CABINET TO ALLOW USER FULL FRONT ACCESS WITH KEYED LOCK.

COMPRESSED AIR REGULATOR WITH GAUGE.

ADJUSTABLE REPEAT CYCLE TIMER, FOR CLEANING ACTION OF NOZZLE COMPRESSED AIR PILOT LINE OPERATION ONLY. NO DIRECT WATER LINE

CONNECTIONS TO CONTROL PANEL PERMITTED

ON/OFF SWITCH COMPLETE WITH PILOT LIGHT. 1.3.7. SOLENOID VALVE TO SHUT DOWN SYSTEM ON LOSS OF ELECTRICAL POWER.

1.3.11. EXTERNAL 120/24 VAC PLUG-IN TRANSFORMER FOR INTERNAL POWER.

1.3.8. CONTROLS TO PROVIDE SAFETY SHUTDOWN OF SYSTEM FOR: 1.3.9. INTERNAL FACTORY WIRING AND PIPING.

1.3.10. CONNECTION FOR PILOT TUBING TO PILOT OPERATED WATER REGULATOR AT VACUUM VALVE, AND PILOT OPERATED AIR REGULATOR.

1.4. THE VACUUM VALVE TO INCLUDE:

1.4.1. ADJUSTABLE WATER PRESSURE REGULATOR

1.4.2. PILOT OPERATED WATER REGULATOR AS SAFETY TO INTERRUPT SUPPLY WATER PRESSURE WHEN SUPPLY AIR PRESSURE IS LOST.

1.5. PERFORMANCE:

1.5.1. WATER PRESSURE: 10 PSIG [69 KPA] MINIMUM 1.5.2. WORKING WATER PRESSURE: ATMOSPHERIC.

1.5.3. AIR PRESSURE: 90 PSIG [621 KPA] MINIMUM, 150 PSIG MAXIMUM [1035 KPA].

1.5.4. WORKING AIR PRESSURE: 0-70 PSIG [0-483 KPA]. 1.5.5. NOZZLE COMPRESSED AIR CONSUMPTION:

1.5.6. NOZZLE MIST OUTPUT: 1.5.7. REFER TO SCHEDULE FOR ADDITIONAL INFORMATION.

1.6. INSTALLATION:

1.6.1. INSTALL HUMIDIFIERS PER MANUFACTURERS' INSTRUCTIONS.

1.6.2. INSTALL WITH REQUIRED CLEARANCE FOR SERVICE AND MAINTENANCE.

INSTALL ACCESSORIES IN ACCORDANCE WITH MANUFACTURER'S RECOMMENDATIONS. 1.6.4. START-UP OF HUMIDIFIER TO BE BY FACTORY TRAINED TECHNICIAN.

2. PRIMARY AIR PRESSURE CONTROL (COMBINATION FILTER-PRESSURE REGULATOR) THE NEW PRIMARY AIR PRESSURE CONTROL SECTION SHALL BE C/W:

PRIMARY AIR REGULATOR VALVE: 0 TO 690 KPA (0 TO 100 PSI) OUTPUT THE VALVE BODY SHALL BE DIECAST ALUMINUM ALLOY MAX SUPPLY PRESSURE: 250 PSI

CAPACITY: MAXIMUM OF 150 SCFM (71 L/S).

THE VALVE SHALL BE C/W THREADED ENDS. INLET AND OUTLET CONNECTIONS: 13MM (1/2"). THE VALVE SHALL BE C/W A PRESSURE GAUGE SHOWING OUTLET PRESSURE

THE VALVE SHALL BE C/W A PRESSURE GAUGE SHOWING OUTLET PRESSURE

THE VALVE SHALL BE C/W 40 MICRON FILTER THE FILTER AND PRESSURE GAUGE SHALL BE PART OF THE REGULATOR ASSEMBLY. THE NEW PRIMARY AIR PRESSURE CONTROL SECTION SHALL BE CAPABLE OF REGULATING THE SUPPLY PRESSURE TO ENSURE A CONSTANT STEADY STATE PRESSURE.

FIELD SET AT 621 KPA (90 PSI).

3. PRIMARY WATER PRESSURE CONTROL NOTE THAT ALL COMPONENTS SHALL BE SUITABLE FOR RO WATER APPLICATIONS. PRIMARY WATER REGULATOR VALVE:

> BODY: PVC THE VALVE SHALL HAVE A BUILT IN CHECK VALVE. THE VALVE SHALL BE C/W TRUE UNION ENDS. INLET AND OUTLET CONNECTIONS: 13MM (1/2"). DIAPHRAGM: PTFE BONDED EPDM. SEALS: EPDM.

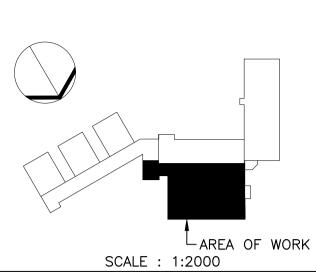
4. RO WATER SEDIMENT STRAINER

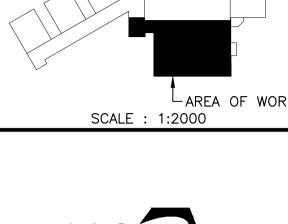
NOTE THAT ALL COMPONENTS SHALL BE SUITABLE FOR RO WATER: Y SEDIMENT STRAINER: BODY: PVC

ACCEPTABLE PRODUCT: CHEMLINE SR SERIES

THE VALVE SHALL BE C/W TRUE UNION ENDS. INLET AND OUTLET CONNECTIONS: 13MM (1/2"). SEAL: EPDM

Agriculture and Agriculture et Agri-food Canada Agroalimentaire Canada



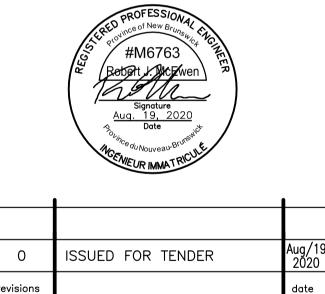


77 Vaughan Harvey Blvd, Suite 200

MONCTON, NB E1C OK2

Bus: (506) 857-8880 Fax: (506) 859-8393

WWW.MCW.COM ENG. JOB NO. 11-20-010



AAFC BUILDING ' FREDERICTON, NB GROWTH ROOM **HUMIDIFICATION**

MECHANICAL SPECIFICATION

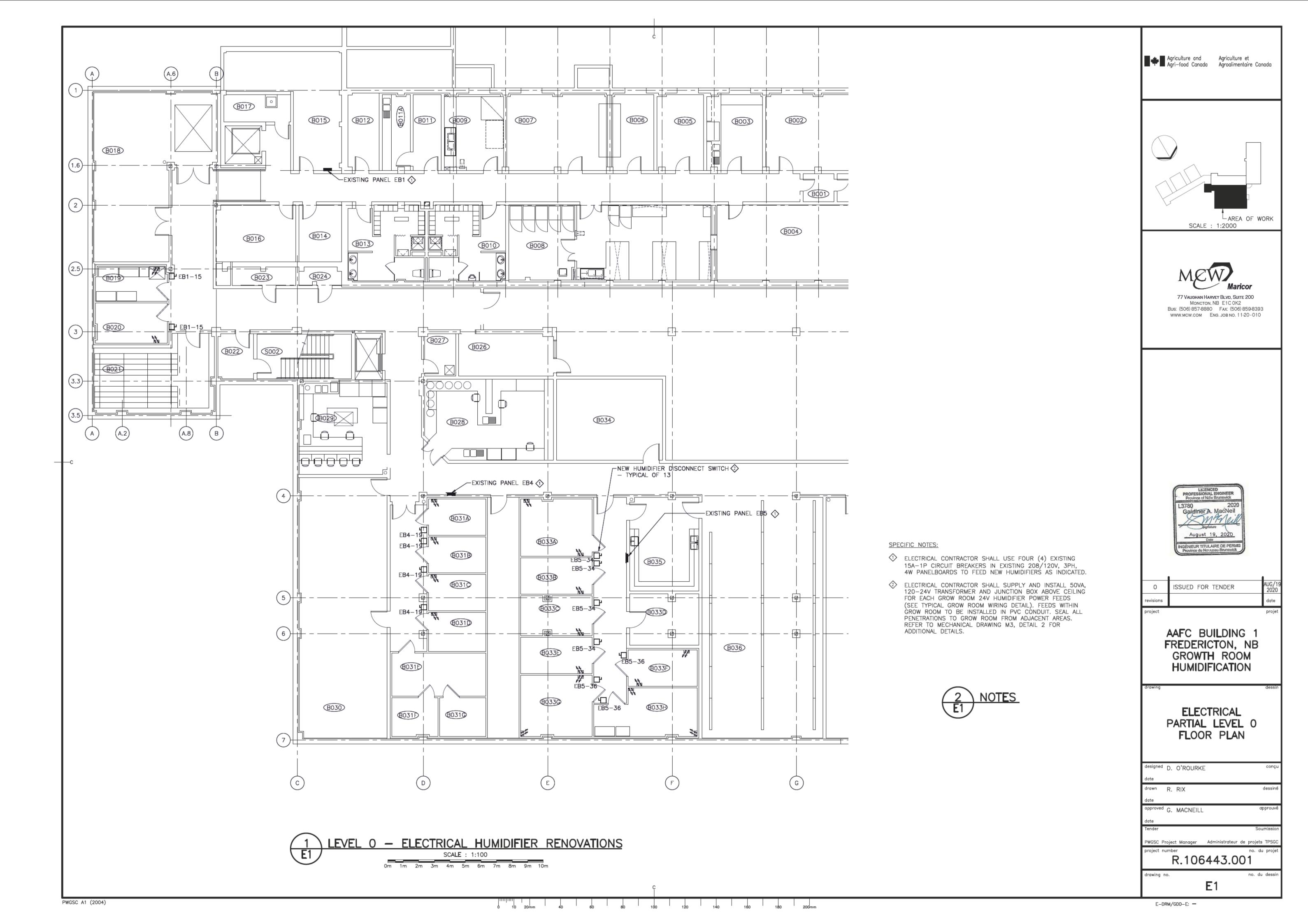
designed B. BELLEFLE	UR	conç
date		
^{drawn} G WARDROP		dessir
date		
^{approved} R. McEWEN		approuv
date		
Tender		Soumissio
PWGSC Project Manager	Administrateur (de projets TPSG
project number		no. du proje

M6

no. du dess

oroject

drawing no



ELECTRICAL SPECIFICATIONS

GENERAL CONDITIONS

.1 THE FOLLOWING GENERAL CONDITIONS SHALL BE READ IN CONJUNCTION WITH THE GENERAL CONDITIONS. ALL WORK SHALL BE DONE IN ACCORDANCE WITH THE LATEST EDITION OF THE CANADIAN ELECTRICAL CODE.

.1 THIS CONTRACTOR SHALL INCLUDE ALL LABOR, MATERIALS, EQUIPMENT AND ASSOCIATED SERVICES NECESSARY FOR, AND INCIDENTAL TO THE INSTALLATION OF COMPLETELY FINISHED, TESTED, BALANCED AND PROPERLY OPERATING ELECTRICAL SYSTEMS AS SPECIFIED HEREAFTER AND SHOWN ON DRAWINGS. THE INTENTION IS TO PROVIDE FOR A FINISHED PIECE OF WORK, COMPLETE IN ALL ESSENTIALS AS CALLED FOR BY THE DOCUMENTS AND ACCEPTED GOOD PRACTICE. THE WORK SHALL INCLUDE THE SUPPLY, INSTALLATION, WIRING AND TESTING OF ELECTRICAL WORK AS INDICATED ON DRAWINGS AND DESCRIBED IN THESE SPECIFICATIONS.

3 PERMIT AND BY-LAWS

.1 THIS CONTRACTOR SHALL ABIDE BY ALL CODES AND BY-LAWS RELATING TO THIS INSTALLATION. PROVIDE NECESSARY NOTICES, OBTAIN PERMITS AND PAY ALL FEES, IN ORDER THAT WORK SPECIFIED MAY BE CARRIED OUT.

1 THIS CONTRACTOR SHALL COORDINATE WORK WITH THE GENERAL CONTRACTOR AND WITH ALL OTHER SUB-CONTRACTORS.

.5 DRAWINGS

1 THE DRAWINGS FOR THE WORK ACCOMPANYING THESE SPECIFICATIONS ARE MADE AS ACCURATELY AS POSSIBLE, BUT ABSOLUTE ACCURACY OF DIMENSIONS CANNOT BE GUARANTEED. THEY ARE INTENDED TO SUPPLEMENT AND SIMPLIFY THE GENERAL CONTRACT DRAWINGS. NO CLAIM FOR EXTRA PAYMENT ON ACCOUNT OF DIFFERENCE OF ACTUAL AND ESTIMATED DIMENSIONS SHALL BE ALLOWED. IN THE CASE OF DISCREPANCY OF FIGURE DIMENSIONS ON THE DRAWINGS, THE MATTER SHALL BE IMMEDIATELY SUBMITTED TO THE ENGINEER FOR A DECISION. WITHOUT THE DECISION, THE DISCREPANCY SHALL NOT BE ADJUSTED BY THE CONTRACTOR AND IN THE SETTLEMENT OF ANY COMPLICATIONS ARISING FROM SUCH ADJUSTING, THIS CONTRACTOR SHALL BEAR ALL EXTRA EXPENSE INVOLVED. INTERPRETATION OF ALL DOCUMENTS SHALL BE LEFT TO THE ENGINEER.

.6 DISPOSALS
.1 THIS CONTRACTOR SHALL REMOVE AND DISPOSE OF ALL REDUNDANT MATERIAL.

.7 CONDUIT AND FITTINGS

.1 CONDUIT SHALL BE RUN ON SURFACE. ALL CONDUIT SHALL BE INSTALLED PARALLEL AND PERPENDICULAR TO BUILDING LINES. .2 BRANCH CIRCUIT CONDUIT, SHALL BE E.M.T. C/W STEEL FITTING. (CAST FITTINGS NOT PERMITTED

FROM PANELBOARD UP TO GROWTH ROOM, AND PVC CONDUIT WITHIN GROW ROOM AREAS).

.8 WIRE AND CABLE

.1 ALL CONDUCTORS SHALL BE COPPER, MIN. SIZE #12 AWG, WITH 600V RW90 X-LINK INSULATION. .2 CONDUCTORS SHALL BE COLORED WHITE FOR NEUTRAL; RED, BLACK, AND BLUE FOR PHASE CONDUCTORS; AND GREEN FOR GROUND CONDUCTORS. COLOR SHALL BE CONTINUOUS THROUGHOUT. .3 SIZE ALL CONDUCTORS FOR A 3% MAXIMUM VOLTAGE DROP.

.9 GROUNDING

.1 THE ENTIRE ELECTRICAL SYSTEM SHALL BE GROUNDED IN ACCORDANCE WITH THE CANADIAN ELECTRICAL CODE, AND LOCAL AUTHORITY HAVING JURISDICTION OVER INSTALLATION.

.10 PANELBOARDS

.1 PANELS ARE EXISTING FPE-NBLP TYPE.

.2 USE EXISTING SPARE CIRCUIT BREAKERS AS NOTED TO FEED NEW HUMIDIFIER CIRCUITS .3 PROVIDE NEW TYPE WRITTEN DIRECTORIES IN ALL PANELS INDICATING NEW AND EXISTING CIRCUIT INFORMATION INCLUDE DESCRIPTION AND LOCATION OF ALL NEW CIRCUITS.

.11 SUBMITTALS

.1 SHOP DRAWINGS THIS CONTRACTOR SHALL SUBMIT SHOP DRAWINGS IN ACCORDANCE WITH THE GENERAL REQUIREMENTS. WORK SHALL NOT PROCEED AND EQUIPMENT/MATERIAL SHALL NOT BE ORDERED UNTIL THE SHOP DRAWINGS HAVE BEEN RETURNED STAMPED AND SIGNED. THIS REVIEW DOES NOT RELIEVE THE CONTRACTOR OF THE OBLIGATION OF CHECKING THE DRAWINGS THEMSELVES OR FURNISHING THE MATERIALS SPECIFIED.

WHEN SUBMITTED, SHOP DRAWING MUST BEAR CONTRACTOR'S STAMP REPRESENTING THAT THEY HAVE DETERMINED AND VERIFIED ALL FIELD MEASUREMENTS, FIELD CONSTRUCTION CRITERIA, MATERIALS, CATALOGUE NUMBERS AND SIMILAR DATA AND THAT THEY HAVE CHECKED AND COORDINATED EACH SHOP DRAWING WITH REQUIREMENTS OF WORK AS INDICATED ON DRAWINGS AND SPECIFICATIONS.

SHOP DRAWINGS REQUIRED FOR: DISCONNECT SWITCHES, JUNCTION BOXES AND TRANSFORMERS. INFORMATION REQUIRED: MANUFACTURER, MODEL, DIMENSIONS, CONSTRUCTION DETAILS, ACCESSORIES, INSTALLATION DETAILS, CAPACITIES, PERFORMANCE DATA, FINISHES. INCLUDE WIRING SINGLE LINE AND SCHEMATIC DIAGRAMS WHERE APPLICABLE. ALL MATERIAL SUPPLIED SHALL BE NEW AND CARRY C.S.A. CERTIFICATION OR OTHER CERTIFICATIONS APPROVED BY LOCAL INSPECTION AUTHORITY.

.2 OPERATION AND MAINTENANCE INSTRUCTIONS

THIS CONTRACTOR SHALL INSTRUCT THE OWNER IN OPERATION AND MAINTENANCE OF ALL EQUIPMENT AND SYSTEMS INSTALLED. ALL SAFETY AND CONTROL FEATURES SHALL BE THOROUGHLY EXPLAINED. TWO COPIES OF OPERATION AND MAINTENANCE INSTRUCTIONS. TOGETHER WITH ALL APPROVED SHOP DRAWINGS AND SPARE PARTS LIST FASTENED IN A BINDER, SHALL BE SUBMITTED TO THE OWNER, MANUALS COMPLETE WITH: -DETAILS OF DESIGN ELEMENTS, CONSTRUCTION FEATURES, COMPONENT FUNCTION AND MAINTENANCE REQUIREMENTS, TO PERMIT EFFECTIVE START-UP, OPERATION, MAINTENANCE, REPAIR, MODIFICATION, EXTENSION AND EXPANSION OF ANY PORTION OR FEATURE OF INSTALLATION.

-TECHNICAL DATA, PRODUCT DATA, SUPPLEMENTED BY BULLETINS, DESCRIPTIONS OF ITEMS, AND PARTS LISTS. ADVERTISING OR SALES LITERATURE IS NOT ACCEPTABLE. -WIRING AND SCHEMATIC DIAGRAMS AND PERFORMANCE CURVES.

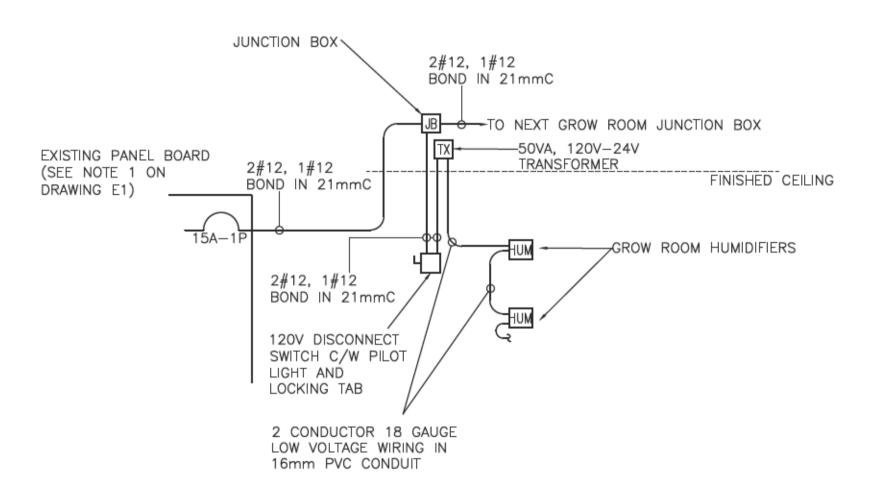
- -NAME AND ADDRESS OF LOCAL SUPPLIERS.
- -COPY OF REVIEWED SHOP DRAWINGS. -COPY OF ALL TEST CERTIFICATES.
- -COPY OF ALL FINAL NEW AND REVISED PANELBOARD SCHEDULES.
- -PROVIDE ONE DIGITAL COPY OF ALL INFO LISTED ABOVE WITH SUBMITTAL.

.3 GUARANTEE

THIS CONTRACTOR SHALL PROVIDE, IN WRITING, A GUARANTEE COVERING ALL LABOR AND MATERIAL FOR A PERIOD OF ONE YEAR FROM DATE OF SUBSTANTIAL COMPLETION. REPAIR AND MAKE GOOD ALL DEFECTS DURING THE GUARANTEE PERIOD, INCLUDING ANY DAMAGE TO BUILDING INCURRED AS A RESULT OF FAILURE OF ELECTRICAL WORK AND/OR EQUIPMENT INSTALLED.

.12 HEALTH AND SAFETY

SEE MECHANICAL DRAWING M-5 FOR REQUIREMENTS.



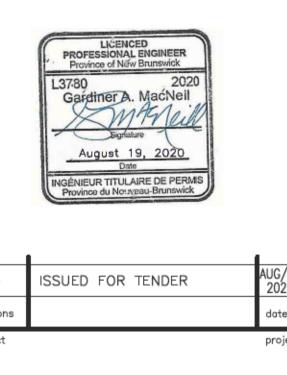
TYPICAL GROW ROOM WIRING DETAIL SCALE: N.T.S.

IAREA OF WORK SCALE: 1:2000 77 Vaughan Harvey Blvd, Suite 200 Moncton, NB E1C 0K2 Bus: (506) 857-8880 Fax: (506) 859-8393 WWW.MCW.COM ENG. JOB NO. 11-20-010

Agriculture and

Agriculture et

Agri—food Canada Agroalimentaire Canada



AAFC BUILDING 1 FREDERICTON, NB GROWTH ROOM **HUMIDIFICATION**

ELECTRICAL SPECIFICATIONS AND DETAIL

designed	D.	o'ROURKE		co	nçu
date					
drawn	R.	RIX		des	siné
date					
approved	G.	MACNEILL		appro	uvé
date					
Tender				Soumis	sion
PWGSC P	rojec	t Manager	Administrateur de	projets TP:	SGC
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Appendix "F"

INSURANCE TERMS

INSURANCE TERMS

IN1 GENERA	١L
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- IN1.1 Worker's Compensation
- IN1.2 Indemnification
- IN1.3 Proof of Insurance
- IN1.4 Insured
- IN1.5 Payment of Deductible
- IN2 COMMERCIAL GENERAL LIABILITY
- IN2.1 Scope of Policy
- IN2.2 Period of Insurance
- IN3 AUTOMOBILE INSURANCE
- IN3.1 Scope of Policy
- IN1 GENERAL

IN1.1 Worker's Compensation

1) The Contractor shall provide and maintain Worker's Compensation Insurance in accordance with the legal requirements of the Province or Territory where the work is being carried out.

IN1.2 Indemnification

1) The insurance required by the provisions of these Insurance Terms shall in no way limit the Contractor's responsibility under the Indemnification clause of the General Conditions of the contract. Any additional coverage the Contractor may deem necessary to fulfill his obligations under the aforesaid clause shall be at his own discretion and expense.

IN1.3 Proof of Insurance

- Before commencement of the Work, and within thirty (30) days after acceptance of its bid, the Contactor shall deposit with Canada a CERTIFICATE OF INSURANCE (form AAFC / AAC5314) available upon request.
- 2) In the event that the Contractor already possesses an insurance certificate clearly demonstrating that their insurance coverage meets IN2.1 Scope of Policy provisions, then the Contractor may deposit an original copy of this insurance certificate.
- Upon request by Canada, the Contractor shall provide originals or certified true copies of all contracts
 of insurance maintained by the Contractor pursuant to the provisions contained herein.

IN1.4 Insured

1) Each policy shall insure the Contractor and shall include Her Majesty the Queen in right of Canada, represented by the Minister of Agriculture & Agri-Food Canada as an additional Insured, with respect to liability arising out of the operations of the contractor with regard to the work.

IN1.5 Payment of Deductible

1) The payment of monies up to the deductible amount made in satisfaction of a claim shall be borne by the Contractor.



INSURANCE TERMS (Continued)

IN2 COMMERCIAL GENERAL LIABILITY

IN2.1 Scope of Policy

- 1) The insurance coverage provided shall not be less than that provided by IBC Form 2100, as amended from time to time, and shall have:
 - (a) an Each Occurrence Limit of not less than \$5,000,000.00;
 - (b) a Products/Completed Operations Aggregate Limit of not less than \$5,000,000.00; and
 - (c) a General Aggregate Limit of not less than \$10,000,000.00 per policy year, if the policy is subject to such a limit.
- 2) The policy shall either include or be endorsed to include coverage for the following exposures or hazards if the Work is subject thereto:
 - (a) Blasting.
 - (b) Pile driving and caisson work.
 - (c) Underpinning.
 - (d) Removal or weakening of support of any building or land whether such support be natural or otherwise if the work is performed by the insured contractor.
 - (e) Asbestos.
 - (f) Non-owed Automobile Policy.

IN2.2 Period of Insurance

1) Unless otherwise directed in writing by Canada, or, otherwise stipulated elsewhere herein, the policy required herein shall be in force and be maintained from the date of contract award until the day of issue of the Certificate of Completion except that the coverage for Completed Operations Liability shall, in any event, be maintained for a period of at least six (6) years beyond the date of the CERTIFICATE OF SUBSTANTIAL PERFORMANCE.

IN3 AUTOMOBILE INSURANCE

IN3.1 Scope of Policy

1) Automobile Liability Insurance in respect of licensed vehicles shall have limits of not less than one million dollars inclusive per occurrence for bodily injury, death, and damage to property.

Appendix "G"

CONTRACT DOCUMENTS

MAJOR WORKS - CONTRACT DOCUMENTS

SC01 CONTRACT DOCUMENTS

- 1) The following are the contract documents:
 - (a) Contract page when signed by Canada;
 - (b) Duly completed Bid and Acceptance Form and any Appendices attached thereto;
 - (c) Drawings and Specifications;
 - (d) AAFC General Conditions form AAFC / AAC5321-E:

(i)	GC1	General Provisions
(ii)	GC2	Administration of the Contract
(iii)	GC3	Execution and Control of the Work
(iv)	GC4	Protective Measures
(v)	GC5	Terms of Payment
(vi)	GC6	Delays and Changes in the Work
(vii)	GC7	Default, Suspension or Termination of Contract
(viii)	GC8	Dispute Resolution
(ix)	GC9	Contract Security
(x)	GC10	Insurance

- (e) Supplementary Conditions, if any;
- (f) Insurance Terms form AAFC / AAC5315-E;
- (g) Any amendment issued or any allowable bid revision received before the date and time set for solicitation closing;
- (h) Any amendment incorporated by mutual agreement between Canada and the Contractor before acceptance of the bid; and
- Any amendment or variation of the contract documents that is made in accordance with the General Conditions.
- 2) The language of the contract documents shall be the language of the Bid and Acceptance Form submitted.

SC02 ACCEPTANCE AND CONTRACT

 Upon acceptance of the Contractor's offer by Canada, a binding Contract shall be formed between Canada and the Contractor. The documents forming the Contract shall be the contract documents referred to in SC01 CONTRACT DOCUMENTS.



Appendix "H"

CONTRACT

CONTRACT

PURCHASING OFFICE

Comments

Agriculture and Agri-Food Canada Eastern Service Centre Tender Receiving Unit 2001 Robert-Bourassa Boulevard, Suite 671-TEN Montréal, Quebec H3A 3N2

Your tender is accepted to sell to Her Majesty the Queen in right of Canada, in accordance with the terms and conditions set out herein, referred to herein or attached hereto, the construction listed herein and on any attached sheets at the price or prices set out therefor.

Vendor / Fir	m Name and Ad	dress	

Title FRDC Building 1 Growth Room	Humidification Systems
TRUE BUTTUTING I GLOWELL ROOM	Thumratt reaction systems
Solicitation / Contract No.	Date
01в46-2040-049	
Client Reference No.	
File No.	
01B49-20-049	
Financial Code(s)	
	○ GST ○ HST
	○ QST
F.O.B	
Destination	
Applicable Taxes	
Included	
Destination	
Fredericton Research and De 850 Lincoln Road PO Box 20280 Fredericton, NB. E3B 4Z7	velopment Centre
Invoices - Original and two copies to be s	ent to :
Address Enquiries to:	
Telephone No. Ext.	Fax No.
Total Estimated Cost	Currency Type
	CAD
For the Minister	
Signature	 Date
1	



FORMS

- Bid Bond
- Certificate of Insurance
- Labour and Material Payment Bond
- Performance Bond
- T4-A Certification

BID BOND

BOND NUMBER:			AMOUNT:	
KNOW ALL PERSONS BY THESE PRESENTS, that				as Principal,
hereinafter called the Principal, and				as Surety,
hereinafter called the Surety, are, subject to the conditions here right of Canada as represented by the Minister of Agriculture and				
dollars (\$), lawful money of Canada, for				
Surety bind themselves, their heirs, executors, administrators, s			d severally, firmly by the	ese presents.
SIGNED AND SEALED this day of	, 2	0		
WHEREAS, the Principal has submitted a written tender to the	Crown, dated the	e	day of	, 20,
for				
NOW, THEREFORE, THE CONDITIONS OF THIS OBLIGATION	N are such that	if:		
(a) the Principal, should his tender be accepted within the per after closing date of the tender, does execute within a peri (14) days after the prescribed forms are presented to him required by the terms of the tender as accepted, and does in the amount of 50% of the Contract price and satisfactory	od specified by for signature, ex furnish a Perfor	the Crown, or, if no ecute such further mance Bond and	period be specified the contractual documents a Labour and Material I	erein, within fourteen s, if any, as may be Payment Bond, each
(b) the Principal does pay to the Crown the difference betwee into by the Crown for the work, supplies and services whic former,				
then this obligation shall be void; otherwise it shall remain in full	force and effec	t.		
PROVIDED, HOWEVER, that the Surety and the Principal shall this bond.	not be liable to	the Crown for an a	amount greater than the	e amount specified in
PROVIDED FURTHER that the Surety shall not be subject to a served upon the Surety at its Head Office in Canada, within twe				d process therefore
IN TESTIMONY WHEREOF, the Principal has hereto set its har with its corporate seal duly attested by the signature of its authorized by the signature of its				
SIGNED, SEALED AND DELIVERED in the presence of:		Note:	Affix Corporate seal if	applicable.
Principal				
Witness				
Surety		i		



PERFORMANCE BOND

BOND NUMBER:			AM	IOUNT:
KNOW ALL PERSONS BY THESE PRES	SENTS, that			as Principal,
hereinafter called the Principal, and				as Surety,
hereinafter called the Surety, are, subject right of Canada as represented by the Mi				
dollars (\$), lawful	money of Canada, for the pa	yment of v	which sum, well and truly to be i	made, the Principal and the
Surety bind themselves, their heirs, exec	utors, administrators, success	sors and a	assigns, jointly and severally, firm	nly by these presents.
SIGNED AND SEALED this	day of	, 20	0	
WHEREAS, the Principal entered into a C	Contract with the Crown date	d the	day of	, 20,
for				
which Contract is by reference made a pa	art hereof, and is hereinafter i	eferred to	as the Contract.	
the obligations on the part of the Principal otherwise it shall remain in full force and 1. Whenever the Principal shall be, and (a) if the work is not taken out of the Principal if the work is taken out of the Principal work in accordance with the Contract (i) it shall be between the Surety (ii) the selection of such completing (c) if the work is taken out of the Principal undertake the completion of the work the Crown under the Contract, (d) be liable for and pay all the excess (e) not be entitled to any Contract moneys he however, and without restricting the Contract moneys earned by the Principal Contract moneys earned by the Principal Contract moneys and without restricting the Contract moneys earned by the Principal Contract moneys earned by the Prin	effect, subject, however, to the declared by the Crown to be, Principal's hands, remedy the cipal's hands and the Crown deact provided that if a contract and the completing contractor and contractor shall be subject to cipal's hands and the Crown, a cork, assume the financial responses costs of completion of the Coneys earned by the Principal, all by the Crown, and the liable egenerality of the foregoing, rincipal or holdbacks related the eater sum than the amount sponses the Crown herein against the under the Contract is payable.	ne followin in default of default of default of directs the is entered on, and to the apparter reasonsibility on the obline of the decified in e Surety possibility of the decified in the decified in e Surety possibility of the decified in e Surety possibility of the decified in the dec	ng conditions: under the Contract, the Surety of the Principal, Surety to undertake the completed into for the completion of the word of the Crown, conable notice to the Surety, does for the cost of completion in except and date of his default on the Contract of the Completion of the Contract to the completion of the Contract to the do by the Crown may be paid to the consumption of these presents after the contract to the cont	shall: etion of the work, complete the vork, s not direct the Surety to cess of the moneys available to eact and any holdbacks relating emain unchanged provided, e satisfaction of the Crown, any the Surety by the Crown. the expiration of two (2) years
IN TESTIMONY WHEREOF, the Principa with its corporate seal duly attested by the			_	· · · · · · · · · · · · · · · · · · ·
SIGNED, SEALED AND DELIVERED in	the presence of:		Note: Affix Corpora	ite seal if applicable.
Principal		_		
Witness		_		
Surety				



T4-A CERTIFICATION

The Contractor shall complete and submit this T4-A Certification within fourteen (14) calendar days of Notification of Contract award and within fourteen (14) calendar days immediately following any change to the information already provided under the Contract. Failure to provide this information or failure to provide the correct information shall result in a fundamental breach of the Contract.

The Contractor shall enter a [x] in one of the boxes below opposite the description that best

	[]	A business incorporated either fed	erally or provincially;	
	[]	An unincorporated business, eithe An individual.	r as a sole proprietor or a partnership; or	
	<u>Note</u>	: The information provided in Se	ction 2 must correspond with that provi	ded in Section 1.
	Corp	orate or unincorporated business	or individual's name:	
	Stree	et Name or Box #:		
	City,	Town or Village:		
	Prov	nce:		
	Posta	al Code:		
2.	Cont	ractor shall complete Section 2(a)	or 2(b) or 2(c), whichever is applicable	to its situation.
(a)	If inc	orporated:		
,		•	, 0	r
		GST / HST Number:		, or
		T2 Corporation Tax Numbe	(T2N):, \	whichever is applicable
	(b)	If unincorporated:		
		Social Insurance Number (SIN):	, and	
		Business Number (BN): GST / HST Number:	, or , whiche	ver is applicable
			d Business Name must be the same as	the name associated with
		the Revenue Canada Busi	ness Number or the GST Number.	
	(c)	If individual:		
		Social Insurance Number (SIN): _	, and	
		Business Number (BN): GST / HST Number:	, or , whiche	ver is applicable
			ame must be the same as the name a	
		Insurance Number.		
			examined the information provided a	
		e, address and Revenue Canada i rrect and complete, and fully disc	dentifier (SIN, BN, GST / HST No., T2N), loses my/our identification	, as applicable, and that i
	13 66	aroot and complete, and fully disc	ioses myour identification.	
		Contractor's signature	Title of Signatory	 Date

CERTIFICATE OF INSURANCE To be completed by the Insurer

CONTRACT	HISUTEI										
CONTRACT Description and locatio	n of work									Contract	t No
Description and locatio	III OI WOIK									Contract	1110.
						Project No.					No.
INSURER						BROKER					
Company name						Company	name				
Unit/Suite/Apt.	Street number	umber Number suffix		ber suffix		Unit/Suite	/Apt.	Stre	eet number		Number suffix
Street name						Street nar	me				
Street type	Street direction	on	PO E	ox or Route Nu	mber	Street typ	е	Stre	Street direction		PO Box or Route Number
Municipality (City, Tow	n, etc.)					Municipal	ity (City, Tow	n, etc.)		1	
Province/State	Postal/ZIP co	ode				Province/	State	Pos	stal/ZIP code		
INSURED						ADDITIO	NAL INSURE	 ED			
Contractor name						7.22					
Unit/Suite/Apt. Street number Number suffix											
Street name	•		•			Her Maies	sty the Quee	n in riah	t of Canada a	s represe	nted by the Minister of
Street type	Street direction	on	PO E	ox or Route Nu	mber						
Municipality (City, Town	n, etc.)					-					
Province/State	Postal/ZIP co	ode				-					
This insurer certifies contract made between Canada.	that the followir en the named in	ng policies o sured and h	of insu Her Ma	urance are at p ajesty the Que	resen en in I	t in force o	covering all nada, repre	operati sented	ons of the In by the Minis	sured, in ter of Agr	connection with the iculture and Agri-Food
POLICY											
Scope of P	olicv	Numbe	r	Inception	Ex	piry Date			Limit o	of Liability	
				Date			Per Occui	ance	General Aggre	gate Limit	Products / Completed Operations Aggregate Limit
Commercial General Liabi	lity										
Builder's Risk "All Risks"/ "All Risks											
Automobile Insurance							(not less than				
Other (list)											
Each of these policies incl Insurer agrees to notify He	udes the coverages er Majesty and the I	L s and provisior Named insured	ıs as s I in wri	L pecified in Insuran ting thirty (30) day	L ce Ter s prior	ms and each to any matei	l n policy has be rial change in,	en endo or cance	sed to cover Hollation of any po	er Majesty a olicy or cove	as an Additional Insured. The erage.
Name of	Insurer's Officer	or Authorize	d Emp	ployee			Telephone r	number		Ext.	_
	Signa	ture					Date				



Agriculture and

LABOUR AND MATERIAL PAYMENT BOND

BOND NUMBER:			AMOUNT:	
KNOW ALL PERSONS BY TH	ESE PRESENTS, that			as Principal,
hereinafter called the Principal	as Surety,			
3,	are, subject to the conditions hereinaft d by the Minister of Agriculture and Ag	•	•	•
dollars (\$), lawful money of Canada, for the payment of which sum, well and truly to be made, the Principal and the			
Surety bind themselves, their h	neirs, executors, administrators, succe	essors and assigns, jointly	and severally, firmly by th	nese presents.
SIGNED AND SEALED this _	day of	, 20		
WHEREAS, the Principal has entered into a Contract with the Crown dated the				, 20 <u></u> ,
for				
which contract is by reference	made a part hereof, and is hereinafte	er referred to as the Contra	act.	

NOW, THEREFORE, THE CONDITIONS OF THIS OBLIGATION are such that, if payment is promptly made to all Claimants who have performed labour or services or supplied material in connection with the Contract and any and all duly authorized modifications and extensions of the Contract that may hereafter be made, notice of which modifications and extensions to the Surety being hereby waived, then this obligation shall be void; otherwise it shall remain in full force and effect, subject, however, to the following conditions:

- 1. For the purpose of this bond, a Claimant is defined as one having a direct contract with the Principal or any Sub-Contractor of the Principal for labour, material or both, used or reasonably required for use in the performance of the Contract, labour and material being construed to include that part of water, gas, power, light, heat, oil, gasoline, telephone services or rental of equipment (but excluding rental of equipment where the rent pursuant to an agreement is to be applied towards the purchase price thereof) directly applicable to the Contract.
- 2. For the purpose of this Bond, no payment is required to be made in respect of a claim for payment for labour or services performed or material supplied in connection with the Contract that represents a capital expenditure, overhead or general administration costs incurred by the Principal during the currency or in respect of the Contract.
- 3. The Principal and the Surety hereby jointly and severally agree with the Crown that if any Claimant has not been paid as provided for under the terms of his contract with the Principal or a Sub-Contractor of the Principal before the expiration of a period of ninety (90) days after the date on which the last of such Claimant's labour or service was done or performed or materials were supplied by such Claimant, the Crown may sue on this bond, have the right to prosecute the suit to final judgment for such sum or sums as may be due and have execution thereon; and such right of the Crown is assigned by virtue of Part VIII of the Financial Administration Act to such Claimant.
- 4. For the purpose of this bond the liability of the Surety and the Principal to make payment to any claimant not having a contract directly with the Principal shall be limited to that amount which the Principal would have been obliged to pay to such claimant had the provisions of the applicable provincial or territorial legislation on lien or privileges been applicable to the work. A claimant need not comply with provisions of such legislation setting out steps by way of notice, registration or otherwise as might have been necessary to preserve or perfect any claim for lien or privilege which the claimant might have had. Any such claimant shall be entitled to pursue a claim and to recover judgment hereunder subject to the terms and notification provisions of the Bond.
- 5. Any material change in the Contract between the Principal and the Crown shall not prejudice the rights or interest of any Claimant under this Bond who is not instrumental in bringing about or has not caused such change.



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6. No suit or action shall be commenced hereunder by any Claimant:	
(a) Unless such Claimant shall have given written notice within the time limit. Surety above named, stating with substantial accuracy the amount claim registered mail to the Principal and the Surety at any place where an office such persons or served in any manner in which legal process may be seematter of the Contract is located. Such notice shall be given	ed. Such notice shall be served by mailing the same by ce is regularly maintained for the transaction of business by
 (i) in respect of any claim for the amount or any portion thereof required Sub-Contractor of the Principal under either the terms of the Claiman the Sub-Contractor of the Principal within one hundred and twenty (1 under this Contract; 	t's Contract with the Principal or the Claimant's Contract with
(ii) in respect of any claim other than for the holdback or portion thereof after the date upon which such Claimant did or performed the last of for which such claim is made under the Claimant's Contract with the	the service, work or labour or furnished the last of the materials
(b) After the expiration of one (1) year following the date on which the Principunder the guarantees provided in the Contract;	pal ceased work on the said Contract, including work performed
(c) Other than in a court of competent jurisdiction in the province or district o thereof is situated and not elsewhere, and the parties hereto hereby agree	
7. The amount of this bond shall be reduced by and to the extent of any payme	ent or payments made in good faith hereunder.
8. The Surety shall not be entitled to claim any moneys relating to the Contract unchanged and, without restricting the generality of the foregoing, the Surety any moneys relating to the Contract held by the Crown are paid to the Surety	y shall pay all valid claims of Claimants under this Bond before
9. The Surety shall not be liable for a greater sum that the amount specified in	this bond.
IN TESTIMONY WHEREOF, the Principal has hereto set its hand and affixed in with its corporate seal duly attested by the signature of its authorized signing a	
SIGNED, SEALED AND DELIVERED in the presence of:	Note: Affix Corporate seal if applicable.
Principal	
Witness	
Surety	

BOND NUMBER: