



SPECIFICATION

SOLICITATION #:13-22044

BUILDING: BOU
BOU Campus
Boucherville, QC

PROJECT: Replace Doors & Windows

PROJECT #: BOU-3798

Date: August 2013



National Research
Council Canada

Conseil national
de recherches Canada

Canada

National Research Council Conseil national de recherches
Canada Canada

Administrative Services Direction des services
& Property management administratif et gestion
Branch (ASPM) de l'immobilier (SAGI)

Construction Tender Form

Project Identification **BOU – Replace Doors and Windows**

Tender No.: **13-22044**

1.2 Business Name and Address of Tenderer

Name _____

Address _____

Contact Person(Print Name) _____

Telephone () _____ **Fax:** () _____

1.3 Offer

I/We the Tenderer, hereby offer to Her Majesty the Queen in Right of Canada (hereinafter referred to as "Her Majesty") represented by the National Research Council Canada to perform and complete the work for the above named project in accordance with the Plans and Specifications and other Tender Documents, at the place and in the manner set out therein for the Total Tender Amount (to be expressed in numbers only) of: \$ _____ . _____ **in lawful money of Canada (excluding GST/HST)**

The above amount is inclusive of all applicable (*) Federal, Provincial and Municipal taxes except that in the event of a change in any tax imposed under the Excise Act, the Excise Tax Act, the Old Age Security Act, the Customs Act, the Customs Tariff or any provincial sales tax legislation imposing a retail sales tax on the purchase of tangible personal property incorporated into Real Property, that occurs

- .1 after the date this tender was mailed or delivered, or
- .2 if this tender is revised, after the date of the last revision

the amount of this offer shall be decreased or decreased in the manner provided for in GC22 of the General Conditions of the Contract Documents.

National Research Council Canada	Conseil national de recherches Canada
Administrative Services & Property management Branch (ASPM)	Direction des services administratif et gestion de l'immobilier (SAGI)

1.3.1 **Offer** (continued)

(*) For the purpose of this tender, the Goods and Services Tax (GST) is not to be considered as an applicable tax.

In the province of Quebec, the Quebec Sales Tax is not to be included in the tender amount because the Federal Government is exempt from this tax. Tenderers shall make arrangements directly with the provincial Revenue Department to recover any tax they may pay on good and services acquired in the performance of this contract. However, tenderers should include in their tender amount Quebec Sales Tax for which an Input Tax Refund is not available.

1.4 **Acceptance and Entry into Contract**

I/We undertake, within fourteen (14) days of notification of acceptance of my/our offer, to sign a contract for the performance of the work provided I/we are notified, by the Department, of the acceptance of my/our offer within 30 days of the tender closing date.

1.5 **Construction Time**

I/We Agree to complete the work within the time stipulated in the specification from the date of notification of acceptance of my/our offer.

1.6 **Bid Security**

I/We herewith enclose tender security in accordance with Article 5 of the General Instruction to Tenderers.

I/We understand that if a security deposit is furnished as tender security and if I/we refuse to enter into a contract when called upon to do so, my/our security deposit shall be forfeited but the Minister may, if it is in the public interest, waive the right of Her Majesty to forfeit the security deposit.

I/We understand that if the security furnished is not in the approved form as described in Article 5 of the General Instructions to Tenderers, my/our tender is subject to disqualification.

National Research Council
Canada

Conseil national de recherches
Canada

Administrative Services
& Property management
Branch (ASPM)

Direction des services
administratif et gestion
de l'immobilier (SAGI)

1.7 Contract Security

Within fourteen (14) days after receipt of written notification of the acceptance of my/our offer, I/we will furnish contract security in accordance with the Contract Conditions "F" of the Contract Documents.

I/We understand that the contract security referred to herein, if provided in the form of a bill of exchange, will be deposited into the Consolidated Revenue Fund of Canada.

1.8 Appendices

This Tender Form includes Appendix No. _____ N/A _____.

1.9 Addenda

The Total Tender Amount provides for the Work described in the following Addenda:

NUMBER	DATE	NUMBER	DATE

(Tenderers shall enter numbers and dates of addenda)

National Research Council Canada	Conseil national de recherches Canada
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Administrative Services & Property management Branch (ASPM)	Direction des services administratif et gestion de l'immobilier (SAGI)
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1.10 Execution of Tender

The Tenderer shall refer to Article 2 of the General Instructions to Tenderers.

**SIGNED, ATTESTED TO AND DELIVERED on the _____ day of
_____ on behalf of**

(Type or print the business name of the Tenderer)

AUTHORIZED SIGNATORY (IES)

(Signature of Signatory)

(Print name & Title of Signatory)

(Signature of Signatory)

(Print name & Title of Signatory)

SEAL

NOTICE TO BIDDERS:

1. GENERAL:

Attendance at one (1) site visit during the tender period is mandatory at the pre-arranged date, time and location specified in the Buyandsell.gc.ca TMA notice.

Questions regarding any aspect of the project are to be addressed to and answered only by the Departmental Representative (or his designate) or the Contracting Authority.

Any information received other than from the Departmental Representative (or his designate) or the Contracting Authority will be disregarded when awarding the contract and during construction.

Firms intending to submit tenders on this project should obtain tender documents through the Buyandsell.gc.ca TMA services provider. Addenda, when issued, will be available from the Buyandsell.gc.ca TMA service provider. Firms that elect to base their bids on tender documents obtained from other sources do so at their own risk and will be solely responsible to inform the tender calling authority of their intention to bid. Tender packages are not available for distribution on the actual day of tender closing.

2. TENDER CLOSING DATE:

Tender closing date is indicated on the Buyandsell.gc.ca TMA notice

3. TENDER RESULTS

Following the Tender closing, the tender results will be sent by facsimile to all Contractors who submitted a tender.

The Departmental Representative or his designate for this project is: Michel Leclair
Telephone: 613 -993-4926

Contracting Authority for this project is: Marc Bedard
Telephone: 613 -993-2274

SPECIFICATION

TABLE OF CONTENTS

Instructions to Tenderers	
Plans and Specifications	A
Terms of Payment	B
General Conditions	C
Labour Conditions and Fair Wage Schedule	D
Insurance Conditions	E
Contract Security Conditions	F
Security Requirement Check List	G

National Research Council Canada

Special Instructions to Tenderers

1.0 SITE VISITS

Details regarding the date, time and location of the site visit(s) are available in the Buyandsell.gc.ca TMA notice

Firms intending to submit tenders on this project should obtain tender documents through the Buyandsell.gc.ca TMA services provider. Addenda, when issued, will be available from the Buyandsell.gc.ca TMA service provider. Firms that elect to base their bids on tender documents obtained from other sources do so at their own risk and will be solely responsible to inform the tender calling authority of their intention to bid. Tender packages are not available for distribution on the actual day of tender closing.

2.0 TENDER CLOSING DATE:

Tender closing date is indicated on the Buyandsell.gc.ca TMA notice

3.0 TENDER DESTINATION

3.1 Tenders are to be submitted in sealed envelopes addressed to:

National Research Council
Industrial Materials Institute
75 boul. de Mortagne
Boucherville, Québec J4B 6Y4

3.2 The tender envelope must clearly identify the Tender Number, Title as it appears on the drawings and specifications and must bear the name and address of the tenderer.

4.0. TENDER RESULTS

4.1 Following the Tender closing, the tender results will be sent by facsimile to all Contractors who submitted a tender.

5.0 SECURITY REQUIREMENT FOR CANADIAN CONTRACTORS

5.1 All personnel that will be involved with the project must be security screened to **RELIABILITY** status level as defined in the security policy of Canada.

INSTRUCTIONS TO TENDERERS

APPROVED BONDING COMPANIES

ARTICLES OF AGREEMENT

FIXED PRICE CONSTRUCTION CONTRACT

Rev. 03/08/2012

INSTRUCTIONS TO TENDERERS

Article 1 – Receipt of Tender

- 1a) Tenders must be received not later than the specified tender closing time. Tenders received after this time are invalid and shall not be considered, regardless of any reason for their late arrival.
- 1b) A letter of printed telecommunication from a bidder quoting a price shall not be considered as a valid tender unless a formal tender has been received on the prescribed Tender Form.
- 1c) Bidders may amend their tenders by letter or printed telecommunication provided that such amendments are received not later than the specified tender closing time.
- 1d) Any amendments to the tender which are transmitted by telefax must be signed and must clearly identify the tenderer.

All such amendments are to be addressed to:

National Research Council of Canada
Marc Bedard, Senior Contracting Officer
Building M-22
Montreal Road, Ottawa, Ontario
K1A 0R6

Fax: (613) 991-3297

Article 2 – Tender Form & Qualifications

- 1) All tenders must be submitted on the Construction Tender Form and the tender must be signed in compliance with the following requirements:
 - a) Limited Company: The full names of the Company and the name(s) and status of the authorized signing officer(s) must be printed in the space provided for that purpose. The signature(s) of the authorized officer(s) and the corporate seal must be affixed.
 - b) Partnership: The firm name and the name(s) of the person(s) signing must be printed in the space provided. One or more of the partners must sign in the presence of a witness who must also sign. An adhesive coloured seal must be affixed beside each signature.

- c) Sole Proprietorship : The business name and the name of the sole proprietor must be printed in the space provided. The sole proprietor must sign in the presence of a witness who must also sign. An adhesive coloured seal must be affixed beside each signature.
- 2) Any alterations in the printed part of the Construction Tender Form or failure to provide the information requested therein, may render the tender invalid.
- 3) All space in the Construction Tender Form must be completed and any handwritten or typewritten corrections to the parts so completed must be initialed immediately to the side of the corrections by the person or persons executing the tender on behalf of the the tenderer.
- 4) Tenders must be based on the plans, specifications and tender documents provided.

Article 3 - Contract

- 1) The Contractor will be required to sign a contract similar to the Standard Contract Form for Fixed Price Construction Contracts, a blank specimen of which is enclosed in the package for reference purposes.

Article 4 – Tender Destination

- 1a) Tenders are to be submitted in sealed envelopes to:
National Research Council Canada
Institute for Industrial Materials
75 boul. De Mortagne,
Boucherville, QC J4B 6Y4

Endorsed "Tender for (insert title of work as it appears in the drawings and specifications)" and must bear the name and address of the tenderer.

- 1b) Unless otherwise specified, the only documents required to be submitted with the tender are the Tender form and the Bid Security.

Article 5 - Security

- 1a) Bid Security is required and must be submitted in one of the following forms:
 - i) a certified cheque payable to the Receiver General for Canada and drawn on a member of the Canadian Payments Association or a local cooperative credit society that is a member of a central cooperative credit society having membership in the Canadian Payments Association; **OR**

drawn on a member of the Canadian Payments Association or a local cooperative credit society that is a member of a central cooperative credit society having membership in the Canadian Payments Association; **OR**

ii) bonds of the Government of Canada, or bonds unconditionally guaranteed as to principal and interest by the Government of Canada; **OR**

iii) a bid bond.

- 1b) Regardless of the Bid Security submitted, it should never be more than \$250,000 maximum, calculated at 10% of the first \$250,000 of the tendered price, plus 5% of any amount in excess of \$250,000.
- 2a) Bid Security shall accompany each tender or, if forwarded separately from the tender, shall be provided not later than the specified tender closing time. Bid Security must be in the ORIGINAL form. Fax or photocopies and NOT acceptable. FAILURE TO PROVIDE THE REQUIRED BID SECURITY SHALL INVALIDATE THE TENDER.
- 2b) If the tender is not accepted, the Bid Security submitted pursuant to Article 8 shall be returned to the tenderer.
- 3a) The successful tenderer is required to provide security within 14 days of receiving notice of tender acceptance. The tenderer must furnish EITHER:
- i) a Security Deposit as described in 1(b) above together with a Labour and Material Payment Bond in the amount of at least 50% of the amount payable under the contract, OR
 - ii) a Performance Bond and a Labour and Material Payment Bond – each in the amount of 50% of the amount payable under the contract.
- 3b) Should it not be possible to obtain a Labour Material Payment Bond as required under 3(a) above, on making application thereof to at least two acceptable Bonding Companies, an additional Security Deposit of a straight 10% of the amount payable under the contract must be furnished.
- 3c) Where a tender has been accompanied by a Security Deposit, as described in 1(b) above, the amount of the Security Deposit required under 3(a) above may be reduced by the amount of the Security Deposit which accompanied the tender.
- 3d) Bonds must be in an approved form and from the companies whose

bonds are acceptable to the Government of Canada. Samples of the approved form of Bid Bond, Performance Bond and Labour and Material Payment Bond and a list of acceptable Bonding Companies may be obtained from the Contracting Officer, National Research Council, Building M-22, Montreal Road, Ottawa, Ontario, K1A 0R6.

Article 6 – Interest On Security Deposits

- 1) Tenderers are notified that they must make their own arrangements with their bankers as to the interest, if any, on the amount of the certified cheque accompanying their tender. The Council will not pay interest on said cheque pending the awarding of the contract nor be responsible for the payments of interest under any arrangement made by the tenderers.

Article 7 – Sales Tax

- 1) The amount of the tender shall include all taxes as levied under the Excise Act, the Excise Tax Act, the Old Age Security Act, the Customs Act or the Customs Tariff, in force or applicable at the time.
- 2) In Quebec, the Provincial Sales Tax should not be included in the Tender Price as the Federal Government is exempt. Tenderers should contact the Provincial Revenue Minister to recover all taxes paid for goods and services rendered under this contract.

Tenderers must include in their Tender Price the amount of Provincial Sales Tax for which the exemption does not apply.

Article 8 – Examination of Site

- 1) All parties tendering shall examine the sites of the proposed work before sending in their tender and make themselves thoroughly acquainted with the same and obtain for themselves any and all information that may be necessary for the proper carrying out of the Contract. No after claim will be allowed or entertained for any work or material that may be requisite and necessary for the proper execution and completion of this Contract with the exception of that provided for under GC 35 in the General Conditions of the General Specification.

Article 9 – Discrepancies, Omissions, Etc.

- 1a) Bidders finding discrepancies in, or omissions from, drawings, specifications or other documents, or having any doubt as to the meaning or intent of any part thereof, should at once notify the Engineer who will

send written instructions or explanation to all bidders.

- 1b) Neither the Engineer nor the Council will be responsible for oral instructions.
- 1c) Addenda or corrections issued during the time of the bidding shall be covered in the proposal. However, the contract supersedes all communications, negotiations and agreements, either written or oral, relating to the work and made prior to the date of the contract.

Article 10 – No additional Payments for Increased Costs

- 1) The only other adjustments in the contract price allowed are those specified in the General Conditions of the General Specification. The contract price will not be amended for change in freight rates, exchange rates, wage rates or cost of materials, plant or services.

Article 11 – Awards

- 1a) The Council reserves the power and right to reject tenders received from parties who cannot show a reasonable acquaintance with and preparation for the proper performance of the class of work herein specified and shown on plans. Evidence of such competence must be furnished by the tenderers if required to do so.
- 1b) A tenderer may be required to furnish to the Contracting Office, National Research Council of Canada, Building M-22, 1200 Montreal Road, Ottawa, Ontario, K1A 0R6, Canada, unsigned copies of the insurance requirements as covered by the Insurance Conditions of the General Specification.
- 1c) The Council does not bind itself to accept the lowest or any tender.

Article 12 – Harmonized Sales Tax

- 1) The Harmonized Sales Tax (HST) which is now in effect shall be considered an applicable tax for the purpose of this tender. However, the bidder shall NOT include any amount in the bid price for said HST. The successful contractor will indicate on each application for payment as a separate amount the appropriate HST the Owner is legally obliged to pay. This amount will be paid to the Contractor in addition to the amount certified for payment under the Contract in addition to the amount certified for payment under the Contract and will therefore not affect the Contract Price. The Contractor agrees to remit any HST collected or due to Revenue Canada.



Acceptable Bonding Companies

Published September 2010

The following is a list of insurance companies whose bonds may be accepted as security by the government.

1. Canadian Companies

ACE INA Insurance
Allstate Insurance Company of Canada
Ascentus Insurance Ltd. (Surety only)
Aviva Insurance Company of Canada
AXA Insurance (Canada)
AXA Pacific Insurance Company
Canadian Northern Shield Insurance Company
Certas Direct Insurance Company (Surety only)
Chartis Insurance Company of Canada (formerly AIG Commercial Insurance Company of Canada)
Chubb Insurance Company of Canada
Commonwealth Insurance Company
Co-operators General Insurance Company
CUMIS General Insurance Company
The Dominion of Canada General Insurance Company
Echelon General Insurance Company (Surety only)
Economical Mutual Insurance Company
Elite Insurance Company
Everest Insurance Company of Canada
Federated Insurance Company of Canada
Federation Insurance Company of Canada
Gore Mutual Insurance Company
Grain Insurance and Guarantee Company
The Guarantee Company of North America
Industrial Alliance Pacific General Insurance Corporation
Intact Insurance Company
Jevco Insurance Company (Surety only)
Lombard General Insurance Company of Canada
Lombard Insurance Company
Markel Insurance Company of Canada
The Missisquoi Insurance Company
The Nordic Insurance Company of Canada
The North Waterloo Farmers Mutual Insurance Company (Fidelity only)
Novex Insurance Company (Fidelity only)
The Personal Insurance Company
Pilot Insurance Company
Quebec Assurance Company
Royal & Sun Alliance Insurance Company of Canada
Saskatchewan Mutual Insurance Company
Scottish & York Insurance Co. Limited
The Sovereign General Insurance Company
TD General Insurance Company
Temple Insurance Company
Traders General Insurance Company
Travelers Guarantee Company of Canada



Trisura Guarantee Insurance Company
The Wawanesa Mutual Insurance Company
Waterloo Insurance Company
Western Assurance Company
Western Surety Company

2. Provincial Companies

- Surety bonds issued by the following companies may be accepted provided that the contract of suretyship was executed in a province in which the company is licensed to do business as indicated in brackets.
- AXA Boreal Insurance Company (P.E.I., N.B., Que., Ont., Man., B.C.)
AXA Boreal Insurance Company (P.E.I., N.B., Que., Ont., Man., B.C.)
ALPHA, Compagnie d'Assurances Inc. (Que.)
Canada West Insurance Company (Ont., Man., Sask, Alta., B.C., N.W.T.) (Surety only)
The Canadian Union Assurance Company (Que.)
La Capitale General Insurance Inc. (Nfld. & Lab., N.S., P.E.I., Que.(Surety only), Man., Sask., Alta., B.C., Nun., N.W.T., Yuk.)
Coachman Insurance Company (Ont.)
Continental Casualty Company (Nfld. & Lab., N.S., P.E.I., N.B., Que., Ont., Man., Sask., Alta., B.C., Nun., N.W.T., Yuk.)
GCAN Insurance Company (Nfld. & Lab., N.S., P.E.I., N.B., Que., Ont., Man., Sask., Alta., B.C., Nun., N.W.T., Yuk.)
The Insurance Company of Prince Edward Island (N.S., P.E.I., N.B.)
Kingsway General Insurance Company (N.S., N.B., Que., Ont., Man., Sask., Alta., and B.C.)
Liberty Mutual Insurance Company (Nfld. & Lab., N.S., P.E.I., N.B., Que., Ont., Man., Sask., Alta., B.C., Nun., N.W.T., Yuk.)
Manitoba Public Insurance Corporation (Man.)
Norgroupe Assurance Générales Inc.
Orleans General Insurance Company (N.B., Que., Ont.)
Saskatchewan Government Insurance Office (Sask.)
SGI CANADA Insurance Services Ltd. (Ont., Man., Sask., Alta.)
L'Unique General Insurance Inc. (Nfld. & Lab., N.S., P.E.I., N.B., Que.(Surety only), Ont.(Surety only), Man., Sask., Alta., B.C.(Surety only), Nun., N.W.T., Yuk.)

3. Foreign Companies

- Aspen Insurance UK Limited
Compagnie Française d'Assurance pour le Commerce Extérieur (Fidelity only)
Eagle Star Insurance Company Limited
Ecclesiastical Insurance Office Public Limited Company (Fidelity only)
Lloyd's Underwriters
Mitsui Sumitomo Insurance Company, Limited
NIPPONKOA Insurance Company, Limited
Sompo Japan Insurance Inc.
Tokio Marine & Nichido Fire Insurance Co., Ltd.
XL Insurance Company Limited (Surety only)
Zurich Insurance Company Ltd



Articles of Agreement

Standard Construction Contract – Articles of Agreement
(23/01/2002)

- A1 Contract Documents
- A2 Date of Completion of Work and Description of Work
- A3 Contract Amount
- A4 Contractor's Address
- A5 Unit Price Table



Articles of Agreement

These Articles of Agreement made in duplicate this day of .

Between

Her Majesty the Queen, in right of Canada (referred to in the contract documents as "Her Majesty")
represented by the National Research Council Canada (referred to in the contract documents as the
"Council")

and

(referred to in the contract documents as the "Contractor")

Witness that in consideration for the mutual promises and obligations contained in the contract, Her
Majesty and the Contractor covenant and agree as follows:

A1 Contract Documents
(23/01/2002)

- 1.1 Subject to A1.4 and A1.5, the documents forming the contract between Her Majesty and the
Contractor, referred to herein as the contract documents, are
- 1.1.1 these Articles of Agreement,
 - 1.1.2 the document attached hereto, marked "A" and entitled "Plans and Specifications",
referred to herein as the Plans and Specifications,
 - 1.1.3 the document attached hereto, marked "B" and entitled "Terms of Payment", referred to
herein as the Terms of Payment,
 - 1.1.4 the document attached hereto, marked "C" and entitled "General Conditions", referred to
herein as the General Conditions,
 - 1.1.5 the document attached hereto, marked "D" and entitled "Labour Conditions", referred to
herein as the Labour Conditions,
 - 1.1.6 the document attached hereto, marked "E" and entitled "Insurance Conditions", referred
to herein as the Insurance Conditions,
 - 1.1.7 the document attached hereto, marked "F" and entitled "Contract Security Conditions",
referred to herein as the Contract Security Conditions, and
 - 1.1.8 any amendment or variation of the contract documents that is made in accordance with
the General Conditions.
 - 1.1.9 the document entitled Fair Wage Schedules for Federal Construction Contracts referred
to herein as Fair Wage Schedules



Articles of Agreement

The Council hereby designates _____ of
of the Government of Canada as the Engineer for the purposes of the contract, and for all purposes of or
incidental to the contract, the Engineer's address shall be deemed to be:

1.2 In the contract

1.3.1 "Fixed Price Arrangement" means that part of the contract that prescribes a lump sum as payment for performance of the work to which it relates; and

1.3.2 "Unit Price Arrangement" means that part of the contract that prescribes the product of a price multiplied by a number of units of measurement of a class as payment for performance of the work to which it relates.

1.3 Any of the 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 Fixed Price Arrangement is applicable.

1.4 Any of the provisions of the contract that are expressly stipulated to be applicable only to a Fixed Price Arrangement are not applicable to any part of the work to which a Unit Price Arrangement is applicable.

A2 Date of Completion of Work and Description of Work (23/01/2002)

2.1 The contractor shall, between the date of these Articles of Agreement and the _____, in the careful and workmanlike manner, diligently perform and complete the following work:

which work is more particularly described in the Plans and Specifications,



Articles of Agreement

A3 Contract Amount
(23/01/2002)

- 3.1 Subject to any increase, decrease, deduction, reduction or set-off that may be made under the Contract, Her Majesty shall pay the Contractor at the times and in the manner that is set out or referred to in the Terms of Payment
- 3.1.1 the sum of _____ (GST/HST extra), in consideration for the performance of the work or the part thereof that is subject to Fixed Price Arrangement, and
- 3.1.2 a sum that is equal to the aggregate of the products of the number of units of Measurement of each class of labour, plant and material that is set out in a Final Certificate of Measurement referred to in GC44.8 multiplied in each case by the appropriate unit price that is set out in the Unit Price Table in consideration for the performance of the work or the part thereof that is subject to a Unit Price Arrangement.
- 3.2 For the information and guidance of the Contractor and the persons administering the contract on behalf of Her Majesty, but not so as to constitute a warranty, representation or undertaking of any nature by either party, it is estimated that the total amount payable by Her Majesty to the Contractor for the part of the work to which a Unit Price Arrangement is applicable will be approximately \$N/A
- 3.3 A3.1.1 is applicable only to a Fixed Price Arrangement.
- 3.4 A3.1.2 and A3.2 applicable only to a Unit Price Arrangement.

A4 Contractor's Address
(23/01/2002)

- 4.1 For all purposes of or incidental to the contract, the Contractor's address shall be deemed to be:



Articles of Agreement

A5 Unit Price Table
(23/01/2002)

5.1 Her Majesty and the Contractor agree that the following table is the Unit Price Table for the purposes of the contract.

Column 1 Item	Column 2 Class of Labour Plant Or Material	Column 3 Unit of Measurement	Column 4 Estimated Total Quantity	Column 5 Price per Unit	Column 6 Estimated Total Price
		N/A			

5.2 The Unit Price Table that is set out in A5.1 designates the part of the work to which a Unit Price Arrangement is applicable.

5.3 The part of the work that is not designated in the Unit Price Table referred to in A5.2 is the part of the work to which a Fixed Price Arrangement is applicable.



Articles of Agreement

Signed on behalf of Her Majesty by

as Senior Contracting Officer

and _____

as _____

of the National Research Council Canada

on the _____

day of _____

Signed, sealed and delivered by

as _____ and
Position

by _____

as _____
Position

of

on the _____

day of _____

Seal

1. SCOPE OF WORK

- .1 Work under this contract covers the replacing of exterior doors and window glazing of the National Research Council building IMI located at 75, boul de Mortagne, Boucherville, Qc.

2. WORK & MATERIALS SUPPLIED BY OWNER

- .1 Work and materials not included in this contract are described on drawings and in this specification.
- .2 Deliver to a storage place, as directed by the Departmental Representative, all materials returned to the Owner.
- .3 Unless otherwise specified, accept owner-supplied materials at their storage location and provide all transportation as required.
- .4 Contractor's duties:
 - .1 Unload at site.
 - .2 Promptly inspect products and report damaged or defective items.
 - .3 Give written notification to the Departmental Representative for items accepted in good order.
 - .4 Handle at site, including uncrating and storage.
 - .5 Repair or replace items damaged on site.
 - .6 Install, connect finished products as specified.

3. LABOUR CONDITIONS AND FAIR WAGE SCHEDULE

- .1 Comply with all labour conditions as specified by the Human Resources Development Canada, Labour Program, including those outlined in Appendix "D", Labour Conditions and Fair Wage Schedule.

4. WORKPLACE HAZARDOUS MATERIAL INFORMATION SYSTEM (WHMIS)

- .1 The contractor shall comply with Federal and Provincial legislation regarding the WHMIS. The contractor's responsibilities include, but are not limited to the following:
 - .1 To ensure that any controlled product brought on site by the contractor or sub-contractor is labeled;
 - .2 To make available to the workers and the Departmental Representative, Material Safety Data Sheets (MSDS) for these controlled products;
 - .3 To train own workers about WHMIS, and about the controlled products that they use on site;
 - .4 To inform other contractors, sub-contractors the Departmental Representative, authorized visitors and outside inspection agency personnel about the presence and use of such products on the site; and
 - .5 The site foreman or superintendent must be able to demonstrate, to the satisfaction of the Departmental Representative, that he/she has had WHMIS

training and is knowledgeable in its requirements. The Departmental Representative can require replacement of this person if this condition or implementation of WHMIS is not satisfactory.

5. EXAMINATION REQUIREMENTS OF BILL 208, SECTION 18(a)

- .1 Not applicable

6. GENERAL

- .1 The word "provide" indicated in this Specification means to supply and install. Site Examination

7. COMPLETION

- .1 All work is to be completed within fifteen (15) weeks upon receipt of notification of acceptance of tender.

8. COST BREAKDOWN

- .1 Submit, for approval by the Departmental Representative, a breakdown of tender before submitting the first request for progress payment.
- .2 Use the approved cost breakdown as the basis for submitting all claims.
- .3 Request Departmental Representative's verbal approval to amount of claim prior to preparing and submitting the claim in its final form.

9. MATERIALS AND WORKMANSHIP

- .1 Install only new materials on this project unless specifically noted otherwise.
- .2 Only first class workmanship will be accepted, not only with regard to safety, efficiency, durability, but also with regard to neatness of detail and performance. Security Deposit.

10. SUB-TRADES

- .1 Submit no later than 72 hours after tender closing, a complete list of sub trades for the Departmental Representative's review.

11. SITE VISITS

- .1 For tendering purposes, the site visit(s) must be attended in the presence of the Departmental Representative.

12. MINIMUM STANDARDS

- .1 Conform to or exceed minimum acceptable standards of the various applicable federal, provincial and municipal codes such as The National Building Code, The National Fire Code, Canadian Plumbing Code, Canadian Electrical Code, Canadian Code for Construction Safety and the Provincial Construction Safety Act.

- .2 Work to conform to referenced standards and codes as reaffirmed or revised to date of specification.

13. FIRE AND GENERAL SAFETY

- .1 Comply with the requirements of Fire Commissioner of Canada Standards No. 301 and 302.
- .2 Comply with the requirements of the National Research Council, Fire Prevention Officer including those outlined in Section 01545.
- .3 Comply with safety related instructions from the Departmental Representative or the National Research Council, Fire Prevention Officer.
- .4 Comply with the National Building Code (Part 8, Construction Safety Measures) and the Provincial Construction Safety Act.

14. PROTECTION AND WARNING NOTICES

- .1 Provide all materials required to protect existing equipment.
- .2 Erect dust barriers to prevent dust and debris from spreading through the building.
- .3 Place dust protection in the form of cover sheets over equipment and furniture and tape these sheets to floors, to ensure no dust infiltration.
- .4 Repair or replace any and all damage to Owner's property caused during construction, at no cost to the Owner and to the satisfaction of the Departmental Representative.
- .5 Protect the buildings, roads, lawns, services, etc. from damage which might occur as a result of this work.
- .6 Plan and co-ordinate the work to protect the buildings from the leakage of water, dust, etc.
- .7 Ensure that all doors, windows, etc., that could allow transfer of dust, noise, fumes, etc., to other areas of the building are kept closed.
- .8 Secure working area at the end of each day's work and be responsible for the same.
- .9 Provide and maintain adequate safety barricades around the work sites to protect NRC personnel and the public from injury during the carrying out of work.
- .10 Post warnings in all instances where possible injury could occur such as Work Overhead, Hard Hat Areas, etc. or as required by the Departmental Representative.
- .11 Provide temporary protective enclosures over building entrances and exits to protect pedestrians. All enclosures to be structurally sound against weather and falling debris.

15. FASTENING DEVICES

- .1 Do not use explosive actuated tools, unless permitted expressly by the Departmental Representative.
- .2 Comply with the requirements of CSA A-166 (Safety Code for Explosive Actuated Tools).
- .3 Do not use any kind of impact or percussion tool without first obtaining permission from the Departmental Representative.

16. BILINGUALISM

- .1 Ensure that all signs, notices, etc. are posted in both official languages.
- .2 Ensure that all identification of services called for by this contract are bilingual.

17. TEMPORARY HEATING AND VENTILATING

- .1 Bear the costs of temporary heat and ventilation during construction including costs of installation, fuel, operation, maintenance, and removal of equipment.
- .2 Use of direct-fired heaters discharging waste products into the work areas will not be permitted unless prior approval is given by the Departmental Representative.
- .3 Furnish and install temporary heat and ventilation in enclosed areas as required to:
 - .1 Facilitate progress of work.
 - .2 Protect work and products against dampness and cold.
 - .3 Reduce moisture condensation on surfaces to an acceptable level.
 - .4 Provide ambient temperature and humidity levels for storage, installation and curing of materials.
 - .5 Provide adequate ventilation to meet health regulations for a safe working environment.
- .4 Maintain minimum temperature of 10 °C (50 °F) or higher where specified as soon as finishing work is commenced and maintain until acceptance of the structure by the Departmental Representative. Maintain ambient temperature and humidity levels as required for comfort of NRC personnel.
- .5 Prevent hazardous or unhealthy accumulations of dust, fumes, mists, vapours or gases in areas occupied during construction including also, storage areas and sanitary facilities.
 - .1 Dispose of exhaust materials in a manner that will not result in a harmful or unhealthy exposure to persons.
- .6 Maintain strict supervision of operation of temporary heating and ventilating equipment.
 - .1 Enforce conformance with applicable codes and standards.
 - .2 Comply with instructions of NRC Fire Prevention Officer including provision of full-time watchmen services when directed.
 - .3 Enforce safe practices.

- .4 Vent direct-fired combustion units to outside.

18. DISCREPANCIES & INTERFERENCES

- .1 Before tender closing, examine drawings and specifications. Report at once to the Departmental Representative, any defects, discrepancies, omissions or interferences affecting the work.
- .2 Provide items mentioned in either the drawings or the specification.
- .3 Contractor to immediately inform the Departmental Representative in writing, of any discrepancies between the plans and the physical conditions so the Departmental Representative may promptly verify same.
- .4 Any work done after such a discovery, until authorized, is at the contractor's risk.
- .5 Where special interferences are encountered on the job and they have not been pointed out on the original tender or on the plans and specifications, provide offsets, bends or reroute the services to suit job conditions at no extra cost.
- .6 Arrange all work so as not to interfere in any way with other work being carried out.
- .7 Commencement of work will imply an acceptance of existing conditions.

19. CO-OPERATION

- .1 Co-operate with NRC staff in order to keep disruption of normal research work to an absolute minimum.
- .2 Work out in advance, a schedule for all work which might disrupt normal work in the building.
- .3 Have schedule approved by the Departmental Representative.
- .4 Notify the Departmental Representative in writing, 72 hours prior to any intended interruption of facilities, areas, corridors, mechanical or electrical services and obtain requisite permission.

20. GENERAL REVIEW

- .1 Periodic review of the contractor's work by the Departmental Representative, does not relieve the contractor of the responsibility of making the work in accordance with contract documents. Contractor shall carry out his own quality control to ensure that the construction work is in accordance with contract documents.

21. INSPECTION OF BURIED OR CONCEALED SERVICES

- .1 Prior to concealing any services that are installed, ensure that all inspection bodies concerned, including NRC, have inspected the work and have witnessed all tests. Failure to do so may result in exposing the services again at the contractor's expense.

22. TESTING

- .1 On completion, or as required by local authority inspectors and/or Departmental Representative during progress of work and before any services are covered up and flushing is complete, test all installations in the presence of the Departmental Representative.
- .2 Obtain and hand to the Departmental Representative all acceptance certificates or test reports from authority having jurisdiction. The project will be considered incomplete without the same.

23. WORKING HOURS AND SECURITY

- .1 Normal working hours on the NRC property are from 8:00 a.m. until 4:30 p.m., Monday to Friday inclusive except statutory holidays.
- .2 At all other times, special written passes are required for access to the building site.
- .3 Obtain permission from the Departmental Representative to perform the specific tasks before scheduling any work outside normal working hours.
- .4 An escort may be required whenever working outside normal hours. Contractor to bear the associated costs.
- .5 All persons employed by the contractor, or by any subcontractor, and working on the site must wear and keep visible identification badges issued by the Council.

24. SCHEDULE

- .1 The contractor shall prepare a detailed schedule, fixing the date for commencement and completion of the various parts of the work and update the said schedule. Such schedule shall be made available to the Departmental Representative not later than two weeks after the award of the contract and prior to commencement of any work on site.

Notify Departmental Representative in writing of any changes in schedule.

25. SERVICE INTERRUPTIONS

- .1 Arrange for all service interruptions with the Departmental Representative. Do not operate any NRC equipment or plant.
- .2 Allow 72 hours notice prior to cutting into any existing service.
- .3 All service interruptions are to be of minimum duration.
- .4 Protect existing services as required and immediately make repairs if damage occurs.
- .5 Provide detours, bridges, alternate feeds, etc., as required to minimize disruptions.
- .6 Plan and perform work in advance in order to minimize disruption and service interruption.

26. SHOP DRAWINGS

- .1 Submit to Departmental Representative for review, shop drawings, product data and samples specified within two (2) weeks after contract award.
- .2 Submit to Departmental Representative for review a complete list of all shop drawings, product data and samples specified and written confirmation of corresponding delivery dates within one (1) week after shop drawings, product data and samples approval date. This list shall be updated on a weekly basis and any changes to the list shall be immediately notified in writing to the Departmental Representative.
- .3 Review shop drawings, data sheets and samples prior to submission.
- .4 Submit 5 copies of all shop drawings and product data and samples for review, unless otherwise specified.
- .5 Review of shop drawings and product data by the Departmental Representative does not relieve the contractor of the responsibility for errors and omissions and for the conformity with contract documents.

27. SAMPLES AND MOCK-UPS

- .1 Submit samples in sizes and quantities specified.
- .2 Where colour, pattern or texture is criterion, submit full range of samples.
- .3 Construct field samples and mock-ups at locations acceptable to Departmental Representative.
- .4 Reviewed samples or mock-ups will become standards of workmanship and material against which installed work will be checked on project.

28. MANUFACTURER'S INSTRUCTIONS

- .1 Unless otherwise specified, comply with manufacturer's latest printed instructions for materials and installation methods.
- .2 Notify the Departmental Representative in writing of any conflict between these specifications and manufacturer's instruction. Departmental Representative will designate which document is to be followed.

29. SPECIFICATIONS, "AS BUILTS"

- .1 The contractor shall keep on the site, one (1) up-to-date copy of all specifications, drawings and bulletins pertaining to the work, in good order, available to the Departmental Representative and to his representatives at all times.
- .2 At least one (1) copy of such specifications and drawings shall be marked by the contractor to show all work "As Built" and shall be handed over to the Departmental Representative with the Application for Payment and for the Final Certificate of Completion.

30. ACCEPTANCE OF SITE

- .1 Inspect the site before commencing work, review any unexpected conditions with the Departmental Representative.
- .2 Commencement of work will imply acceptance of existing conditions.

31. PARTIAL OCCUPANCY

- .1 NRC may request partial occupancy of the facility if the contract extends beyond the expected completion date.

32. USE OF SITE

- .1 Restrict operations on site to the areas approved by the Departmental Representative at the time of tendering.
- .2 Locate all temporary structures, equipment, storage, etc., to the designated areas.
- .3 Restrict parking to the designated areas.
- .4 Do not restrict access to the building, routes, and services.
- .5 Do not encumber the site with materials or equipment.

33. SITE ACCESS

- .1 Make prior arrangements with the Departmental Representative before starting work or moving materials and equipment on site.
- .2 Obtain approval of Departmental Representative for regular means of access during the construction period.
- .3 Obtain approval of Departmental Representative before temporarily suspending operations on site; before returning to the site and before leaving the site at the end of the job.
- .4 Provide and maintain access to site.
- .5 Build and maintain temporary roads and provide snow removal during period of work.
- .6 Make good any damage and clean up dirt, debris, etc., resulting from contractor's use of existing roads.

34. OVERLOADING

- .1 Ensure that no part of the building or work is subjected to a load which will endanger safety or cause permanent deformation or structural damage.

35. TEMPORARY SERVICES

- .1 A source of temporary power will be made available in the area. Bear all costs to make connections to the power source and perform distribution on site.
- .2 Provide all load centres, breakers, conduit, wiring, disconnects, extension cords, transformers, as required from the source of power.
- .3 Power is to be used only for power tools, lighting, controls, motors, and not for space heating.
- .4 A source of temporary water will be made available if required.
- .5 Bear all costs associated with distributing the water to the required locations.
- .6 Comply with NRC requirements when connecting to existing systems in accordance with the articles entitled "Co-operation" and "Service Interruptions" of this section.

36. SITE OFFICE & TELEPHONE

- .1 Contractor to erect a temporary site office at his own expense.
- .2 Install and maintain a telephone, if necessary.
- .3 Use of NRC phones not permitted unless in the case of an emergency.

37. SANITARY FACILITIES

- .1 Provide sanitary facility, and bear all associated costs.

38. PROJECT MEETINGS

- .1 Hold regular project meetings at times and locations approved by the Departmental Representative.
- .2 Notify all parties concerned of meetings to ensure proper coordination of work.
- .3 Departmental Representative will set times for project meetings and assume responsibility for recording and distributing minutes.

39. STORAGE

- .1 Provide storage as required to protect all tools, materials, etc., from damage or theft and be responsible for the same.
- .2 Do not store flammable or explosive materials on site without the authorization of the NRC Fire Prevention Officer.

40. DRAINAGE

- .1 Provide temporary drainage and pumping as required to keep excavations and site free of water.

41. ENCLOSURE OF STRUCTURES

- .1 Construct and maintain all temporary enclosures as required to protect foundations, sub-soil, concrete, masonry, etc., from frost penetration or damage.
- .2 Maintain in place until all chances of damage are over and proper curing has taken place.
- .3 Provide temporary weathertight enclosures for exterior openings until permanent sash and glazing and exterior doors are installed.
- .4 Provide lockable enclosures as required to maintain the security of NRC facilities and be responsible for the same.
- .5 Provide keys to NRC security personnel when required.

42. LAYOUT OF WORK

- .1 Lay out the work carefully and accurately.
- .2 Verify all dimensions and be responsible for them.
- .3 Locate and preserve general reference points.
- .4 Employ competent person to lay out work in accordance with control lines and grades provided by the Departmental Representative.

43. CONCEALING

- .1 Conceal all services, piping, wiring, ductwork, etc., in floors, walls or ceilings except where indicated otherwise.

44. SPACE CONFLICT

- .1 Maintain an awareness of responsibility to avoid space conflict with other trades.
- .2 Throughout the course of construction, keep continuously acquainted with field conditions, and the work being developed by all trades involved in the project.

45. CUTTING AND PATCHING

- .1 Cut existing surfaces as required to accommodate new work.
- .2 Remove all items as shown or specified.
- .3 Patch and make good with identical materials, the surfaces that have been disturbed, cut or damaged, to the Departmental Representative's satisfaction.
- .4 Where new pipes pass through existing construction, core drill an opening. Size openings to leave 12mm (1/2") clearance around the pipes or pipe insulation. Do not drill or cut any surface without the approval of the Departmental Representative.

- .5 Obtain written approval of the Departmental Representative before cutting openings through existing or new structural members.
- .6 Seal all openings where cables, conduits or pipes pass through walls with an acoustic sealant conforming to CAN/CGSB-19.21-M87.
- .7 Where cables, conduits and pipes pass through fire rated walls and floors, pack space between with compressed glass fibres and seal with caulking in accordance with CAN/CGSB-19.13-M87 AND NBC 3.1.7.
- 46. CLEAN-UP DURING CONSTRUCTION**
- .1 On a daily basis, maintain project site and adjacent area of campus including roofs, free from debris and waste materials.
- .2 Provide on-site dump containers for collection of waste materials and rubbish.
- 47. FINAL CLEAN-UP**
- .1 Upon completion do a final clean-up to the satisfaction of the Departmental Representative.
- .2 Clean all new surfaces, lights, existing surfaces affected by this work, replace filters, etc.
- .3 Clean all resilient flooring and prepare to receive protective finish. Protective finish applied by NRC
- 48. DISPOSAL OF WASTES**
- .1 Dispose of waste materials including volatiles, safely off NRC property. Refer to the article entitled "Fire & General Safety" of this section.
- 49. WARRANTY**
- .1 Refer to General Conditions "C", section GC32.
- .2 Ensure that all manufacturers' guarantees and warranties are issued in the name of the Contractor and the National Research Council.
- 50. MAINTENANCE MANUALS**
- .1 Provide three (3) bilingual copies of maintenance manuals or two English and two French maintenance manuals immediately upon completion of the work and prior to release of holdbacks.
- .2 Manuals to be neatly bound in hard cover loose leaf binders.
- .3 Manuals to include operating and maintenance instructions, all guarantees and warranties, shop drawings, technical data, etc., for the material and apparatus supplied under this contract.

51. IDENTIFICATION BADGES

- .1 Use of Identification Badges is mandatory in NRC buildings.
- .2 Obtain all badges from the Security office.

52. SPECIFIED ACCEPTABLE & ALTERNATIVE EQUIPMENT & MATERIALS

- .1 Materials and equipment scheduled and/or specified on the drawings or in the specifications have been selected to establish a performance and quality standard. In most cases, acceptable manufacturers are stated for any material or equipment specified by manufacturer's name and model number. Contractors may base their tender price on materials and equipment supplied by any of the manufacturers' names as acceptable for the particular material or equipment.
- .2 In addition to the manufacturers specified or named as acceptable, you may propose alternative manufacturers of materials or equipment to the Departmental Representative for acceptance. For a product to be considered as an alternative product substitute, make a written application to the Departmental Representative during the tender period, not later than seven (7) working days before tender closing.
- .3 Certify in writing that the alternative meets all requirements of the specified material or equipment. In addition, it shall be understood that all costs required by or as a result of acceptance or proposed alternatives, will be borne by the contractor.
- .4 Approval of alternatives will be signified by issue of an Addendum to the Tender Documents.
- .5 Any alternative manufacturers or materials submitted which are incomplete and cannot be evaluated, or are later than seven (7) working days before tender closing date or after the tender period, will not be considered.

53. DRAWINGS

- .1 The following drawings illustrate the work and form part of this contract.

E-3798-A-000, E-3798-A-200, E-3798-A-400, E-3798-A-401, E-3798-A-402, E-3798-A-500, E-3798-A-600, E-3798-A-601, E-3798-A-700, E-3798-A-701 et E-3798-A-800.

END OF SECTION

Part 1 General

1.1 AUTHORITIES

- .1 The Fire Commissioner of Canada (F.C.) is the authority for fire safety at NRC.
- .2 For the purpose of this document, "Departmental Representative" will be deemed as the NRC person in charge of the project.
- .3 The Departmental Representative will consult with the Fire Prevention Officer (FPO) as and when required.
- .4 The Departmental Representative will enforce these Fire Safety Requirements.
- .5 Comply with the following standards as published by the Office of the Fire Commissioner of Canada:
 - .1 Standard No. 301 - June 1982 "Standard for Construction Operations";
 - .2 Standard No. 302 - June 1982 "Standard for Welding and Cutting".

1.2 Hot Work

- .1 Permit:
 - .1 Prior to commencement of any "Hot Work" involving welding, soldering, burning, heating, use of torches or salamanders or any open flame, obtain a Hot Work Permit from the Departmental Representative.
- .2 Site Review:
 - .1 Prior to commencement of "Hot Work", review the area of hot work with the Departmental Representative to determine the level of fire safety precautions to be taken.

1.3 REPORTING FIRES

- .1 Know the exact location of the nearest Fire Alarm Pull Station and telephone, including the emergency phone number.
- .2 REPORT immediately, all fire incidents as follows
 - .1 Activate nearest fire alarm pull station and;
 - .2 Telephone the following emergency phone number:
 - .3 When reporting a fire by phone, give the location of fire, building number and be prepared to verify location.
 - .4 The person activating fire alarm pull station must remain at the scene of fire to provide information and direction to the Fire Department personnel.

1.4 INTERIOR AND EXTERIOR FIRE PROTECTION & ALARM SYSTEMS

- .1 DO NOT OBSTRUCT OR SHUT OFF FIRE PROTECTION EQUIPMENT OR ALARM SYSTEMS WITHOUT AUTHORIZATION FROM THE DEPARTMENTAL REPRESENTATIVE.
- .2 WHEN ANY FIRE PROTECTION EQUIPMENT IS TEMPORARILY SHUT DOWN, ALTERNATIVE MEASURES AS PRESCRIBED BY THE DEPARTMENTAL REPRESENTATIVE SHALL BE TAKEN TO ENSURE THAT FIRE PROTECTION IS MAINTAINED.
- .3 DO NOT LEAVE FIRE PROTECTION OR ALARM SYSTEMS INACTIVE AT THE END OF A WORKING DAY WITHOUT NOTIFICATION AND AUTHORISATION FROM THE DEPARTMENTAL REPRESENTATIVE. THE DEPARTMENTAL REPRESENTATIVE WILL ADVISE THE (FPO) OF THE DETAILS OF ANY SUCH EVENT.
- .4 DO NOT USE FIRE HYDRANTS, STANDPIPES AND HOSE SYSTEMS FOR OTHER THAN FIRE FIGHTING PURPOSES UNLESS AUTHORISED BY DEPARTMENTAL REPRESENTATIVE.

1.5 FIRE EXTINGUISHERS

- .1 Provide a minimum of 1-20 lb. ABC Dry Chemical Fire Extinguisher for every hot work operation.
- .2 Provide fire extinguishers for hot asphalt and roofing operations as follows:
 - .1 Pot area - 1-20 lb. ABC Dry Chemical;
 - .2 Roof - 2-20 lb. ABC Dry Chemical.
- .3 Provide fire extinguishers equipped as below:
 - .1 Pinned and sealed;
 - .2 With a pressure gauge;
 - .3 With an extinguisher tag signed by a fire extinguisher servicing company.
- .4 Carbon Dioxide (CO₂) extinguishers will not be considered as substitutes for the above.

1.6 ROOFING

- .1 Kettles:
 - .1 Arrange for the safe location of asphalt kettles and material storage with the Departmental Representative before moving them on site. Do not locate kettles on any roof or structure and keep them at least 10m away from a building and at a safe distance from parked automobiles.
 - .2 Equip kettles with thermometers or gauges that are in good working order.
 - .3 Do not operate kettles at temperatures in excess of 232°C.

- .4 Maintain continuous supervision while kettles are in operation and provide metal covers for the kettles to smother any flames in case of fire. Provide fire extinguishers as required in article 12.
- .5 Advise the Departmental Representative of container capacities prior to start of work.
- .6 Keep compressed gas cylinders secured in an upright position and a minimum of 20 feet away from any kettle.
- .2 Mops:
 - .1 Use only glass fibre roofing mops.
 - .2 Remove used mops from the roof site at the end of each working day.
- .3 Torch Applied Systems:
 - .1 Do not use torches next to walls.
 - .2 Provide a fire watch as required by article 13 of this section.
- .4 Materials Storage:
 - .1 Store all combustible roofing materials at least 3m away from any structure and 6m from any kettle.
- 1.7 FIRE WATCH**
 - .1 Provide a fire watch for a minimum of one hour after the termination of a hot work operation.
 - .2 Temporary heating, refer to General Instructions Section 01000.
 - .3 Equip fire watch personnel with fire extinguishers as required by article 5.
- 1.8 OBSTRUCT OF ACCESS/EGRESS ROUTES-ROADWAYS, HALLS, DOORS OR ELEVATORS**
 - .1 Advise the Departmental Representative in advance of any work that would impede the response of the Fire Department personnel and their apparatus. This includes violation of minimum overhead clearance, erecting of barricades and the digging of trenches.
 - .2 Building exit routes must not be obstructed in any way without special permission from the Departmental Representative, who will ensure that adequate alternative routes are maintained.
 - .3 The Departmental Representative will advise the FPO of any obstruction that may warrant advanced planning and communication to ensure the safety of building occupants and the effectiveness of the Fire Department.
- 1.9 SMOKING**
 - .1 Smoking is prohibited inside all NRC buildings.
 - .2 Obey all "NO SMOKING" signs.

1.10 RUBBISH AND WASTE MATERIALS

- .1 Keep rubbish and waste materials to a minimum and a minimum of 20 feet from any kettle or torches.
- .2 Do not burn rubbish on site.
- .3 Removal:
 - .1 Remove all rubbish from work site at the end of the work day or shift, or as directed.
- .4 Storage:
 - .1 Exercise extreme care when storing combustible waste materials in work areas. Ensure maximum possible cleanliness, ventilation and that all safety standards are adhered to when storing any combustible materials.
 - .2 Deposit greasy or oily rags or materials subject to spontaneous combustion in CSA or ULC approved receptacles and remove as required in 10.3.1.
- .5 Dumpsters:
 - .1 Consult the Departmental Representative to determine an acceptable safe location before bringing the dumpster on site.

1.11 FLAMMABLE LIQUIDS

- .1 The handling, storage and use of flammable liquids are governed by the current National Fire Code of Canada.
- .2 Flammable Liquids such as gasoline, kerosene and naphtha may be kept for ready use in quantities not exceeding 45 litres, provided they are stored in approved safety cans bearing the ULC seal of approval. Storage of quantities of flammable liquids exceeding 45 litres for work purposes, require the permission of the Departmental Representative.
- .3 Transfer of flammable liquids is prohibited within buildings.
- .4 Do not transfer flammable liquids in the vicinity of open flames or any type of heat producing device.
- .5 Do not use flammable liquids having a flash point below 38 °C such as naphtha or gasoline as solvents or cleaning agents.
- .6 Store flammable waste liquids for disposal in approved container located in a safe, ventilated area. Waste flammable liquids are to be removed from the site on a regular basis.
- .7 Where flammable liquids, such as lacquers or urethane are used, assure proper ventilation and eliminate all sources of ignition. Inform the Departmental Representative prior to, and at the cessation of such work.

1.12 QUESTIONS AND/OR CLARIFICATION

- .1 Direct any questions or clarification on Fire Safety, in addition to the above requirements, to the Departmental Representative.

END OF SECTION

SECTION 02825 - DEVIS SYSTEMES DE CLÔTURES ET BARRIERES**PARTIE I - GÉNÉRALITÉS:****1.01 PORTÉE DES TRAVAUX :**

Les travaux décrits dans la présente section comprennent les matériaux, le matériel, la main d'œuvre, incluant la livraison pour l'installation de la clôture, des barrières, et des accessoires.

1.02 TRAVAUX CONNEXES : (Sections à consulter)**1.03 NORMES DE RÉFÉRENCE**

American Society for Testing and Materials (ASTM), Fifth edition.

ASTM-A82: Cold Drawn steel wire , Plain, for Concrete Reinforcement.

ASTM-A185: Steel Welded Wire Fabric, Plain, for Concrete Reinforcement.

A123/A123M-02 Standard Specification for Zinc (Hot-Dip Galvanized) Coatings on Iron and Steel Products

A 641 (1989) Standard Specification for Zinc-Coated (Galvanized) Carbon Steel Wire.

A1008 Steel, Sheet, Cold-Rolled, Carbon, Structural, High-Strength Low-Alloy (HSLA) and HSLA with Improved Formability

A787-01 Standard Specification for Electric-Resistance-Welded Metallic-Coated Carbon Steel Mechanical Tubing

A513-00 Standard Specification for Electric-Resistance-Welded Carbon and Alloy Steel Mechanical Tubing

A 446 (1987) Standard Specification for Steel Sheet, Zinc Coated (Galvanized) by the Hot-Dip Process, Structural (physical) Quality.

A500 (1993) Standard Specification for Cold formed welded and seamless carbon steel structural tubing in round shapes.

B 6 (1987) Standard Specification for Zinc

B 117 (1990) Standard Test Method of Salt Spray (Fog) Testing.

B 221 (1995) Standard Specification for Aluminum and aluminum-alloy extruded bars, rods, wire, shapes and tubes.

D 2247 (1988) Standard Practice for Testing Water Resistance of Coatings in 100% Relative Humidity.

D 2794 (1990) Standard Test Method for Resistance of Organic Coatings to the Effects of Rapid Deformation (Impact).

D 3359 (1990) Standard Test Methods for Measuring Adhesion by Tape.

F 900 (1984) Standard Specification for industrial and commercial swing gates.

F 934 (1989) Standard Specification for Standard Colors for Polymer-Coated Chain Link Fence Materials.

F 1184 (1988) Standard Specification for industrial and commercial horizontal slide gates.

F 1234 (1989) Standard Specification for protection coatings on steel framework for fences.

1.04 DOCUMENTS À SOUMETTRE

- A. Les dessins d'atelier conformément à la section 01300 (en cinq copies).
Décrire clairement sur les dessins les panneaux de clôture, les poteaux, les attaches, les composantes, les barrières, les dimensions et les ancrages.
- B. Les instructions et les procédures d'installation du manufacturier, incluant tous les détails sur l'installation type d'une clôture et des barrières.
- C. Échantillon de couleur pour vérification : demander une plaquette échantillon au manufacturier

PARTIE II - PRODUITS

2.01 MANUFACTURIER

SYSTEMES DE CLÔTURES OMEGA II™

Division de Metaltech - Omega inc.

1735, St-Elzéar ouest

Laval (Québec), Canada

H7L 3N6

Tel: 800-836-6342 / 450-686-9600

Fax: 450-681-5318

Email: information@omegatwo.com

Site web: www.omegafence.com

2.02 REVÊTEMENTS

A. Revêtement de zinc :

1. Les sections de treillis sont recouvertes d'un minimum de 366 g/m² (1.6 once/pi.²) de zinc se conformant à la norme ASTM A123/123M, galvanisation à chaud, connu sous le nom de galvanisation après soudage ou les sections de treillis sont recouvertes d'un minimum de 150 g/m² (0.5 once/pi.²) de zinc se conformant à la norme ASTM A641(1989), Classe I, connu sous le nom de galvanisation avant soudage .
2. Les poteaux de clôtures ou de barrières sont recouverts de zinc (procédé galvalume) d'un minimum de 0.27kg/m² (0.9 once/pi²) se conformant à la norme ASTM A787 .

B. Recouvrement de polyester doit être la couleur standard [noir], [la couleur optionnelle _____ ou autre couleur optionnelle selon le code de couleur de la charte Protech numéro ____ . Consulter le site web pour le choix des couleurs]. Le revêtement de polyester est d'une épaisseur minimale de 100 microns (4 mils) appliqué après fabrication selon un procédé électrostatique. Le recouvrement doit couvrir toutes les surfaces du treillis et du poteau. Aucun recouvrement de polyester sur les boulons, écrous et rondelles. Le recouvrement doit subir avec succès les essais suivants:

1. Essais d'adhérence mécanique - ASTM D3359 (1990) - Méthode B.
2. Résistance aux chocs - ASTM D2794 (1990).
3. Essais chimiques de résistance au sel (minimum de 1000 heures sans rouille) - ASTM-B117 (1990).
4. Essais de résistance à l'humidité (100%) - ASTM D2247 (1988).

2.03 MATÉRIAUX**2.03.1 CLÔTURE MODÈLE « SECUR » ET ACCESSOIRES**

- A. La hauteur des panneaux est de : 1230mm (4 pi.) - 1830mm (6 pi.) et 2430mm (8 pi.) ou selon les multiples des panneaux installés l'un au-dessus de l'autre.
- B. Le **panneau soudé " DOUBLE TIGES SECUR "** est d'une largeur de 2510 mm (98 7/8 po.), fabriqué de fils d'acier verticaux de 6mm (0.236 po.) soudés entre deux fils d'acier horizontaux de 8mm (0.315 po.). Selon la norme ASTM A-185, les fils sont soudés par résistance électrique formant des rectangles de 50 mm X 200 mm (1 15/16 po. X 7 7/8 po.). La limite élastique du fil d'acier laminé à froid est de 515 MPa (75,000 lb/po.²) et la charge de rupture est de 1430 kg (3150 lb) pour la tige individuelle de 6mm et de 2545 kg (5600 lbs) pour le fil de 8 mm. Les tiges verticales d'un coté du panneau dépassent de 25 mm (1 po.) de la dernière tige horizontale formant ainsi des pointes , ces pointes pouvant être placées en haut ou en bas selon l'application. Le panneau est galvanisé après soudage selon la norme ASTM A123/123M ou préalablement selon la norme ASTM A641(1989), Classe I, puis recouvert d'un fini polyester de 100 microns (4 mil).
- C. Les **poteaux carrés** installés [dans le sol ou sur plaque de base] de dimensions 50 mm X 50 mm (2 po. X 2 po.) et 76 mm X 76 mm (3 po. X 3 po.) sont faits d'acier galvalume de jauge (voir tableau 1), de nuance d'acier 1008, roulés à froid se conformant à la norme ASTM 513-00 et ASTM A787-01, G90 recouvert de zinc (procédé galvalume). Contrairement aux clôtures en maille de chaîne, il n'est pas nécessaire d'utiliser de plus gros poteaux pour les coins ni pour les poteaux de fin de course car les panneaux sont rigides et auto-portants.

TABLEAU 1**Capacité maximale des poteaux à l'élévation horizontale de... (en Newtons)**

Types de poteaux	1245	1449	1778	2464	mm
50x50 (2x2) - 1,6mm(16Ga)		1463	1170	n/a	n/a
50x50 (2x2) - 3,0mm (11Ga)		2571	2060	1713	1286
75x75 (3x3) - 3,0mm (11Ga)		6152	4920	4101	3074

Recommandations minimales : poteau 50 x 50 x 1,6mm (2x2 -16Ga) pour panneaux 1245 (4'H) et 1449 (5'H) ;

poteau 50 x 50 x 3,0mm (2x2 -11Ga) pour panneaux 1778 (6'H) et 2464 (8'H).

La longueur du poteau aura au minimum 610 mm (24 po.) de plus que la hauteur du panneau.

- D. **Option : Extension à 45°** de mêmes dimensions que le poteau (50 x 50 ou 75 x 75) et mesurant 460mm de longueur , soudée à l'extrémité du poteau carré en formant un angle de 45° et munies

de deux (2) kits d'attaches Universelle par poteau pour recevoir une panneau double tiges Secur de 420mm

- E. Les kits d'**attaches universelles** du systèmes de clôture Double tiges SECUR de 50mm ou 75mm (2" ou 3") inclus les composantes suivantes: collet d'acier 2,6mm (jauge 12) et plaquette de retenue des tiges 6,3mm x 25 mm (¼" x 1"), écrou anti-vol , rondelle et boulon de carrosserie (carrage) 8,0mm x 32 mm min. (5/16" x 1 ¼"), tout galvanisé . Pour tourner à 90°, utiliser la même attache. Pour tout angle supérieur à 15°, utiliser l'attache à angle universelle.

Kit d'attaches universelles recommandées

Panneau	Nombre par panneau
1230mm (4'H)	6
1830mm (6'H)	6
2430mm (8'H)	8

- F. Les **fixations spéciales pour panneaux (SPF)** permettent de fixer le panneau à des surfaces horizontales ou verticales en acier, en béton ou en bois. Les SPF sont galvanisées à chaud et les différents modèles disponibles sont :

- 1) Le **kit SPF-W** , pour se fixer aux surfaces verticales : inclus une plaquette en L avec fente d'ajustement de 45mm (1 ¾") et une plaquette pour retenir les tiges, une fois boulonnées.
- 2) Le **kit SPF-C**, pour se fixer aux surfaces horizontales :inclus une plaquette en L avec fente d'ajustement de 45mm (1 ¾") et deux plaquettes pour retenir les tiges, une fois boulonnées
- 3) Le **kit SPF-P**, pour raccorder deux panneaux ensemble.

- G. **Capuchons** pour poteaux : fabriqué en aluminium pour les poteaux carrés de 50 mm X 50 mm (2 po. X 2 po.) et en acier galvanisé pour les autres dimensions de poteaux carrés.

- H. **Revêtement polyester** : voir article 2.02b

- I. **Béton**: dosé de manière à atteindre une résistance à la compression d'au moins 25 MPa à 28 jours, contenant "un gros granulat à grains" de 5 mm (3/16 po.) au minimum et de 20 mm (3/4 po.) au maximum avec 5% à 7% d'air entraîné ou selon les prescriptions de la section 03000.

2.03.2 BARRIÈRE À BATTANTS

- A. Le cadre des barrières est fabriqué selon la norme ASTM F900 (1984), à partir de tuyaux carrés faits d'acier galvalume roulé à froid de 50 mm X 50 mm (2 po. X 2 po.) pour les membres du cadre horizontal et vertical afin de former un cadre rigide. Pour les barrières de plus de 2440 mm (8 pi.) en hauteur ou 2440 mm (8 pi.) en largeur, un support vertical carré (50 mm (2 po.) par 50 mm (2 po.)) doit être fixé au cadre pour plus de solidité.

- B. Les poteaux de barrières sont faits d'acier galvalume de dimensions correspondantes à celles des barrières listées ci-bas. Les panneaux sont fixés aux poteaux de barrière en utilisant un joint

d'attache 90° ou des kits d'attaches SPF-W. Le joint d'attache 90° est fixé au poteau avec des vis auto-taraudeuses à tous les 254mm (10 po.). Un capuchon accompagne chaque poteau. Les poteaux d'acier, de qualité structurale minimale de 310Mpa (45 000psi), se conforment à la norme ASTM B 6 (1987) « High Grade and Special High Grade Zinc » et ASTM A787, G90 zinc coating (galvalume process) – 0.27kg/m² (0.90 oz/ft.2).

Ouverture d'un battant

1830 mm (6.0 pi.) ou moins
1860 mm (6.1 pi.) à 4115 mm (13.5 pi.)
4145 mm (13.6 pi.) à 4875 mm (16 pi.)
4876 mm (16 pi.) et plus

Dimension des poteaux de barrière

76 mm X 76 mm (3 po. x 3 po.)
102 mm x 102 mm (4 po. x 4 po.)
152 mm x 152 mm (6 po. x 6 po.)
fait sur mesure par manufacturier

Les poteaux sont au minimum de 840 mm (33 po.) plus long que la hauteur de la clôture lorsqu'ils sont enfouis dans le sol.

C. Panneau fabriqué de fils d'acier soudés: (Voir article 2.03.1B).

D. Accessoires de barrières: charnières, loquets, mentonnets et autres sont faits d'acier galvanisé selon un procédé de trempage à chaud ou de fer malléable correspondant aux dimensions des barrières pour en assurer le bon fonctionnement. Les accessoires se conforment à la norme ASTM F900 (1984) à moins de spécifications contraires. Un revêtement de polyester est appliqué sur les pièces fixes. Les accessoires mobiles peuvent être retouchés sur le site en utilisant une peinture fabriquée par le manufacturier correspondant à la couleur de la clôture.

E. Charnières: structurellement conçues pour supporter la barrière sans se déformer lorsque l'on ferme ou ouvre .

F. Loquet: de type levier avec fermoir en "U", capable de garder la barrière en position fermée et munie d'un mécanisme permettant de verrouiller la barrière avec un cadenas. Le loquet permet d'ouvrir et fermer la barrière des deux côtés.

G. Support de barrière: ce support est installé lorsque la barrière mesure 1524 mm (5 pi.) et plus. Le support de barrière est utilisé pour retenir et soutenir la barrière en position d'ouverture complète.

H. Barrière double: un verrou vertical est installé de manière à pouvoir retenir en place le battant en position fermée. Prévoir d'inclure un loquet et un mentonnet permettant de barrer la barrière double avec un seul cadenas.

I. [Option]: prévoir une serrure à clef de marque Locinox, pour barrière simple [ou double].

J. La dimension des poteaux de barrière est indiqué au tableau suivants ;

K. Recouvrement de polyester : (Voir article 2.02 B).

L. Béton : (Voir article 2.03.1-H).

2.03.3 BARRIÈRE COULISSANTE

- A. Le cadre de la barrière est fabriqué selon la norme ASTM F1184 (1988), Classe 2, en utilisant des tuyaux carrés de 50 mm X 50 mm (2 po. X 2 po.) en aluminium 6063-T6, ASTM B221(1995), pesant 1.39 kg/m (0.94 lb/pi.). Les tuyaux sont soudés ensemble formant un cadre rigide avec une extrusion soudée au membre horizontal supérieur. Fournir deux (2) ensembles de roulettes pour chacun des cadres, à l'exception de barrière de dimensions supérieure à 9144 mm (30 pi.). Toute barrière de plus de 8230 mm (27 pi.) et assemblée sur le site en utilisant les attaches spéciales fournies par le manufacturier et doit être en 2 parties.

Ouverture de la barrière

1830 mm (6 pi.) à 3040 mm (10 pi.)
3350 mm (11 pi.) à 4270 mm (14 pi.)
4570 mm (15 pi.) à 6710 mm (22 pi.)
7010 mm (23 pi.) à 9010 mm (30 pi.)

Support « Cantilever »

1980 mm (6.5 pi.)
2290 mm (7.5 pi.)
3040 mm (10 pi.)
3660mm (12 pi.)

Les tuyaux verticaux sont faits d'aluminium, 50 mm (2 po.) par 50 mm (2 po.), ils sont soudés au cadre de la barrière à approximativement 2440 mm (8 pi.) centre à centre, subdivisant le cadre en sections égales (ouverture seulement).

Ouverture de la barrière

7010 mm (23 pi.) à 9010 mm (30 pi.)

Support « Cantilever »

3660 mm (12 pi.)

Pour une barrière de 7010 mm (23 pi.) à 9140 mm (30 pi.), souder un tuyau carré de 50 mm (2 po.) par 50 mm (2 po.) comme support latéral adjacent au tuyau horizontal supérieur. Les dimensions du tuyau horizontal inférieur en aluminium pesant 2.54 kg/m (1.71 lbs/pi.), sont de 50 mm (2 po.) par 100 mm (4 po.).

Ouverture de la barrière

9450 mm (31 pi.) à 10670 mm (35 pi.)
10970 mm (36 pi.) à 12190 mm (40 pi.)

Support « Cantilever »

4120 mm (13.5 pi.)
4880 mm (16 pi.)

Pour une barrière de 9450 mm (31 pi.) à 12190 mm (40 pi.), souder 2 tuyaux d'aluminium roulés à froid ensemble et ensuite souder à la partie supérieure du cadre. Chaque barrière requiert deux

(2) ensembles de roulettes pour chacune des extrusions, un total de quatre (4) ensembles de roulettes. Les dimensions du tuyau horizontal inférieur en aluminium pesant 2.54 kg/m (1.71 lbs/pi.), sont de 50 mm (2 po.) par 100 mm (4 po.).

Ouverture de la barrière

12500 mm (41 pi.) à 15240 mm (50 pi.)

manufacturier

Support "Cantilever"

Fait sur mesure par le

Pour les barrières de 12500 mm (41 pi.) à 15240 mm (50 pi.), fabriquer une structure rigide de 610 mm (24 po.) de largeur. La structure est fabriquée à partir de deux (2) cadres de construction similaires aux barrières de dimensions inférieures. Les deux (2) cadres sont assemblés ensemble en soudant des tuyaux carrés réunissant les deux (2) cadres et en fixant des fils d'acier afin de les renforcer. Chacun des deux (2) cadres contiennent une extrusion double dans le but de donner un support à la structure. Les extrusions permettent d'installer les huit (8) ensembles de roulettes dont quatre (4) de chaque côté. Souder une plaque de métal reliant les poteaux parallèles afin de maintenir l'alignement des systèmes de roulement.

- B. Panneau fabriqué de fils d'acier soudés: (Voir article 2.03.1B).
- C. Entretoise: fournir des fils d'acier galvanisé de 9.5 mm (3/8 po.), avec ajustement en longueur, deux (2) par section de treillis à être insérée dans le cadre de la barrière.
- D. Extrusion d'aluminium (en forme de "U"): fait d'aluminium pesant 5.54 kg/m (3.72 lb/pi.). L'extrusion supporte une force de réaction de 907 kg (2000 lb). L'extrusion ne doit pas être recouvert d'un fini polyester.
- E. Ensemble de roulettes: faites de fonte avec placage au zinc, de type à pivot, avec quatre (4) roulements à billes scellés munis de roues parallèles pour garantir l'alignement dans l'extrusion. Les roulettes sont fixées aux potences de poteaux en utilisant des boulons de 22 mm (7/8 po.) de diamètre avec 13 mm (1/2 po.) de filet. L'ensemble de roulettes supporte une force de réaction de 907 kg (2000 lb).
- F. Support des barrières, loquet, potence, et pièce d'arrêt: faits de fer malléable galvanisé après fabrication. Fournir un loquet pouvant recevoir un cadenas. Ces accessoires ne doivent pas être recouvert d'un fini polyester.
- G. Ensemble de guides inférieurs: cet ensemble est constitué de deux (2) roues de caoutchouc de 100 mm (4 po.) de diamètre, Lesquelles sont installées aux poteaux afin de maintenir la barrière dans un bon alignement. Cet accessoire ne doit pas être recouvert d'un fini polyester.
- H. Poteaux de barrière: sont faits de tuyaux d'acier galvanisé (carrés) selon un procédé de trempage à chaud se conformant à la norme ASTM B-6 (1987). L'acier doit rencontrer les exigences de qualité de l'acier structural roulé à chaud avec une limite élastique de 45000 lb/po2

(310 MPa) se conformant à la norme ASTM A-500 (1993) G90. La dimension des poteaux de barrière change suivant la dimension des barrières.

- I. Recouvrement de polyester : (Voir article 2.02 B).
- J. Béton : (Voir article 2.03.1H)

PARTIE III - EXÉCUTION

3.01 NIVELLEMENT

Niveler le terrain le long du tracé de la clôture afin d'obtenir une surface uniforme entre les poteaux.

3.02 INSTALLATION DE LA CLÔTURE-MODÈLE « SECUR »

- A. Poser la clôture le long du tracé indiqué aux dessins. Prévoir un espace libre d'au moins 30 mm (1 1/4 po.) et d'au plus 50 mm (2 po.) entre le bas de la clôture et le sol. Les trous pour les poteaux sont d'un minimum de 200 mm (8 po.) de diamètre et d'une profondeur minimale de 1070 mm (42 po.).
- B. Étayer les poteaux dans les coffrages afin de les maintenir d'aplomb, dans l'alignement et au niveau prescrit jusqu'à la prise du béton. Incorporer tous les ancrages nécessaires et les poteaux, à une profondeur minimale de 610 mm (24 po.) dans les bases.
- D. **Installation des poteaux carrés 2" ou 3" :** insérer les poteaux dans le béton espacés c/c à 2638 mm (103 7/8 po.) pour le poteau carré 50 mm X 50 mm (2 po. X 2 po.) et 2665 mm (104 7/8 po.) pour le poteau 76 mm X 76 mm (3 po. X 3 po.) avec possibilité d'ajustement de ± 38 mm (1-1/2 po.) de chaque côté du poteau. Une fois les poteaux bien fixés dans le béton, glisser sur le poteau les attaches universelles en les positionnant toujours contre les tiges horizontales du panneau et ensuite les boulonner.
- E. Pour la clôture installée dans une pente, il est requis de poser la clôture en escalier. Les attaches universelles glissent le long du poteau carré pour permettre l'ajustement. Dans le cas d'une pente très abrupte, il est nécessaire de prévoir des poteaux plus longs et de réduire la longueur des panneaux afin de réduire au minimum l'espacement entre le panneau et le sol. Si le panneau doit être enfoui, il est recommandé de recouvrir le panneau de deux couches de polyester.
- F. Lorsque des panneaux ou des poteaux sont coupés, l'installateur doit retoucher le bout des tiges ou les poteaux coupés avec du zinc liquide et par la suite les peindre en utilisant une peinture fabriquée par le manufacturier correspondant à la couleur de la clôture.
- G. Les panneaux doivent être installés selon les instructions du client :
- 1) Pointes placées vers le haut ou bas
 - 2) Plis face à l'intérieur ou à l'extérieur du terrain

3.03 INSTALLATION DES BARRIÈRES

- A. Installer les poteaux de barrières selon les recommandations du manufacturier.

- B. Base de béton pour poteaux de barrière: percer les trous dans un sol ferme, et/ou compacté. Les trous doivent avoir un diamètre quatre (4) fois plus grand que la dimension extérieure des poteaux et une profondeur approximative de 150 mm (6po.) de plus que la partie du poteau allant dans le sol. Creuser plus profondément pour une meilleure stabilité lorsque le sol est mou et pour les poteaux ayant une grande force latérale. Prévoir un minimum de 914 mm (36po.) de poteau à être enfoncé dans le sol. Verser le béton autour du poteau avec une pente dirigeant l'eau vers l'extérieur de la base de béton. Vérifier à ce que les poteaux aient le bon alignement vertical et soient à la même hauteur.
- C. Installer les barrières au niveau pour permettre une ouverture complète sans interférence.
- D. Ajuster et attacher les accessoires de manière à prévenir un enlèvement non autorisé.

3.04 NETTOYAGE

Nettoyer et régaler les surfaces où le sol a été remué au cours des travaux. Se débarrasser des matériaux de surplus [et remplacer le gazon endommagé par des plaque de gazon selon les directives [de l'Ingénieur] [du Consultant]].

FIN DE SECTION

PARTIE 1 - GÉNÉRALITÉS**1.1 DOCUMENTS CONNEXES**

A. Les dessins et les clauses générales du contrat, y compris les conditions générales et supplémentaires ainsi que les sections des spécifications de la division 01, s'appliquent à cette section.

1.2 SOMMAIRE

NOTE AU RÉDACTEUR DU CAHIER DES CHARGES : CHOISIR LE TYPE DE PORTES (ÉTROITES, MOYENNES OU LARGES) SELON LES EXIGENCES DU PROJET.

A. Cette section comprend les Portes d'entrée avec cadres en aluminium de Kawneer, verre et vitrage, ainsi que quincailleries composants.

1. Les types de Portes d'entrée avec cadres en aluminium de Kawneer comprennent:

a. Porte battante Insulclad®560; montants larges, dimension de face des montants 5-9/16 po (141,3 mm), 2-1/4 po (57,2 mm) de profondeur, pour les applications à circulation dense.

A. Sections connexes:

1. Division 07270 « Pare-air », pour les matériaux utilisés afin de relier une porte coulissante vitrée avec cadre en aluminium un bâtiment
2. Division 079200 « Produits de scellement », pour les produits de scellement installés avec le système de porte coulissante avec cadre en aluminium
3. Division 08400 « Murs rideaux vitrés en aluminium »
4. Division 08700 «Quincaillerie»
5. Division 08800 «Vitrage»

1.3 DÉFINITIONS

A. Définitions : Pour la terminologie et les définitions standards de l'industrie des fenêtres, se référer au glossaire AAMA AG de l'American Architectural Manufacturers Association (AAMA).

1.4 EXIGENCES DE PERFORMANCE

A. Performance générale : Un système de devanture de magasin avec cadres en aluminium doit résister aux effets des exigences de performance suivantes sans dépassement des critères de performance ou défaillance due à une construction, une fabrication ou une installation défectueuse, ou à d'autres défauts de construction :

1. Charges nominales dues à la poussée du vent : Déterminer les charges nominales dues à la poussée du vent applicables au projet à partir de la vitesse de base du vent indiquée en milles à l'heure, selon ASCE 7, section 6.5, « Method 2-Analytical Procedure », en fonction des hauteurs de toit moyennes au-dessus du niveau indiqué sur les dessins.

a. Vitesse de base du vent (milles à l'heure) : (____)

b. Coefficient de risque (I, II, III) : (____)

c. Catégorie d'exposition (A,B,C,D) : (____)

B. Exigences de performance du système d'entrée avec cadres en aluminium

NOTE AU RÉDACTEUR DU CAHIER DES CHARGES : LES RÉSULTATS DE LA RÉSISTANCE À L'INFILTRATION D'AIR ET D'EAU SONT BASÉS SUR LES NORMES ASTM ET AAMA S'APPLIQUANT AUX SYSTÈMES D'ENTRÉE DES DEVANTURES DE MAGASINS. CONSULTER VOTRE REPRÉSENTANT KAWNEER RELATIVEMENT AU NIVEAU DE PERFORMANCE REQUIS POUR UN OUVRAGE SPÉCIFIQUE.

NOTE AU RÉDACTEUR DU CAHIER DES CHARGES : FOURNIR LES PRESSIONS NOMINALES DE RÉSISTANCE AU VENT EN LB/PI², DE MÊME QUE LE CODE DU BÂTIMENT PERTINENT ET L'ANNÉE DE L'ÉDITION.

1. Résistance au vent : Fournir un système de devanture de magasin, y compris un dispositif d'ancrage, résistant à des pressions nominales de résistance au vent de (____) lb/pi² vers l'intérieur et de (____) lb/pi² vers l'extérieur. Les pressions nominales sont basées sur le Code du bâtiment (____), édition (____)
2. Infiltration d'air : Pour les portes d'entrées à action simple à pivots décentrés ou à charnières en position fermée et verrouillée, l'échantillon doit être soumis aux essais effectués conformément à la norme ASTM E 283 à une pression différentielle de 6,24 lb/pi² (300 Pa) pour les portes simples et de 1,567 lb/pi²

(75 Pa) pour les paires de portes. Pour un cadre et une porte d'entrée simple de 3 pi x 7 pi (915 mm x 2134 mm), le niveau d'infiltration ne doit pas être supérieur à 0,50 pis/m par pied carré. Pour un cadre et une paire de portes d'entrée de 6 pi x 7 pi (1830 mm x 2134 mm), le niveau d'infiltration ne doit pas dépasser 1,0 pis/m par pied carré.

3. Résistance structurale : L'essai de résistance des coins doit être effectué conformément à la procédure d'essai par moment composé de la charge de Kawneer et certifié par un laboratoire d'essai indépendant en vue d'assurer la conformité des soudures et l'intégrité des coins. (La procédure d'essai et les résultats d'essais certifiés peuvent être obtenus sur demande.)
4. Rendement thermique : Les essais par simulation informatisée seront menés conformément aux normes NFRC 100/200/500 et AAMA 507.03.

1.5 SOUMISSIONS

- A. Données du produit : Inclure détails de construction, descriptions des matériaux, méthodes de fabrication, dimensions des composants et profils individuels de quincaillerie, finis et instructions d'installation pour chaque type de devantures de magasin avec cadres en aluminium indiqué.
- B. Dessins d'atelier : Inclure plans, élévations, sections, détails, quincaillerie, fixations à d'autres travaux, autorisations opérationnelles et détails d'installation.
- C. Échantillons pour sélection initiale : Pour unités avec finis de couleur appliqués en usine, y compris échantillons de quincaillerie et d'accessoires impliquant une sélection de couleurs.
- D. Échantillons pour vérification : Pour porte battante vitrée avec cadre en aluminium et composants requis.
- E. Rapports d'essais des produits : Basés sur l'évaluation d'essais poussés effectués par un organisme d'essais qualifié pour chaque type, catégorie, classification et taille de portes d'entrée avec cadres en aluminium. Les résultats des essais basés sur l'utilisation d'unités d'essai réduites ne seront pas acceptés.
- F. Garantie : Garantie spéciale déterminée dans cette section.
- G. Échantillon de fabrication : De chaque intersection verticale à horizontale des systèmes à cadres en aluminium, fait de longueurs de 12 po (300 mm) de composants à l'échelle et montrant les détails suivants :
 1. Menuiserie, y compris les soudures.
 2. Ancrage.
 3. Provisions d'agrandissement.
 4. Vitrage.
- H. Autres soumissions d'exécution :
 1. Bordereau technique de quincaillerie de porte d'entrée : Préparé par le fournisseur ou sous sa supervision et détaillant la fabrication ainsi que l'assemblage de la quincaillerie de porte d'entrée, de même que les procédures et diagrammes. Coordonner le bordereau technique de quincaillerie de porte d'entrée final avec les portes, cadres et travaux connexes afin que les caractéristiques de la quincaillerie de porte d'entrée (taille, épaisseur, couleur, fonction et fini) soient adéquates.

1.6 ASSURANCE DE LA QUALITÉ

- A. Qualifications de l'installateur : Un installateur ayant installé avec succès des unités identiques ou similaires à celles requises pour ce projet et d'autres projets de taille et d'ampleur similaires.
- B. Qualifications du fabricant : Un fabricant capable de fournir des portes d'entrée et des devantures de magasin avec cadres en aluminium répondant aux exigences de performance indiquées ou dépassant celles-ci, et de documenter cette performance en incluant rapports d'essais et calculs.
- E. Limitations des sources : Obtenir des portes coulissantes vitrées avec cadres en aluminium provenant d'un seul fabricant grâce à une seule source.
- D. Options de produits : Les dessins indiquent la taille, les profils ainsi que les exigences dimensionnelles des portes d'entrée vitrées avec cadres en aluminium et sont basés sur le système particulier indiqué. Voir division 01, section « Exigences des produits ». Ne pas modifier les exigences de taille et de dimensions.
 1. Ne pas modifier les effets visuels prévus, tels que jugés seulement par l'architecte, sauf avec l'approbation de l'architecte. Si des modifications sont proposées, soumettre des données explicatives approfondies à l'architecte pour examen.
- E. Maquettes : Construire des maquettes pour vérifier les sélections effectuées suivant les soumissions d'échantillons, démontrer les effets visuels et établir des normes de qualité pour les matériaux ainsi que l'exécution.
 1. Construire une maquette pour les types d'entrées à portes battantes indiquées, aux emplacements indiqués sur les dessins.
- F. Conférence de préinstallation : Tenir une conférence sur le site du projet pour satisfaire aux exigences de la division 01, section « Gestion et coordination du projet ».

1.7 CONDITIONS DU PROJET

- A. Mesures sur le terrain : Vérifier les dimensions réelles des ouvertures de portes coulissantes vitrées avec cadres en aluminium en prenant des mesures sur le terrain avant la fabrication et indiquer ces mesures sur les dessins d'atelier.

1.8 GARANTIE

- A. Garantie du fabricant : Soumettre, pour acceptation par le Propriétaire, la garantie standard du fabricant.
1. Période de garantie : Deux (2) ans à partir de la date de quasi-achèvement du projet à condition cependant que la garantie limitée ne commence en aucun cas plus tard que six mois après la date d'expédition par le fabricant.

PARTIE 2 - PRODUITS

2.1 FABRICANTS

NOTE AU RÉDACTEUR DU CAHIER DES CHARGES : CHOISISSEZ LE TYPE DE PORTES (ÉTROITES, MOYENNES, LARGES) EN FONCTION DE EXIGENCES DU PROJET.

- A. Produit de référence :
1. Kawneer Company Inc.
 2. Les dimensions de face des montants et des traverses des portes d'entrée [] (choisir un modèle : Insulclad®560, seront comme suit :
- | Porte | Montant vertical | Traverse supérieure | Traverse inférieure |
|-----------|----------------------|----------------------|----------------------|
| Porte 560 | 5-9/16 po (141,3 mm) | 5-9/16 po (141,3 mm) | 7-1/16 po (179,4 mm) |
3. La plus grande partie des profilés de porte doivent être d'une épaisseur nominale de 0,125 po (3,2 mm) et les moulures de vitrage d'une épaisseur de 0,05 po (1,3 mm).
 4. Les garnitures de vitrage doivent être soit en élastomère EPDM extrudé ou en élastomère thermoplastique.
 5. Fournir des cales d'ajustement réglables pour permettre de mieux centrer le verre dans l'ouverture de porte.

NOTE AU RÉDACTEUR DU CAHIER DES CHARGES : FOURNIR L'INFORMATION CI-DESSOUS INDIQUANT LES SOLUTIONS DE RECHANGE APPROUVÉES AU PRODUIT DE RÉFÉRENCE.

- B. Sous réserve de conformité aux exigences, fournir un produit comparable compte tenu de l'information suivante :
1. Fabricant : ()
 2. Série : ()
 3. Dimensions du profil : ()
 4. Classification de performance : ()
- C. Substitutions: Se reporter à la section Substitutions relative aux exigences de procédures et de soumissions.
1. Substitutions avant l'obtention du contrat (période de soumission) : Soumettre les demandes par écrit dix (10) jours avant la date de fermeture de la demande de soumissions.
 2. Substitutions après l'obtention du contrat (période de la construction) : Soumettre la demande par écrit afin d'éviter les délais d'installation et de construction de devantures de magasins.
 3. Documentation sur le produit et dessins : Soumettre la documentation sur le produit et les dessins modifiés pour convenir aux exigences spécifiques du projet et aux conditions de l'ouvrage.
 4. Certificats : Soumettre le(s) certificat(s) certifiant que le fabricant proposé comme substitution (1) s'engage à répondre aux exigences spécifiées vue de satisfaire aux critères de rendement des systèmes de devantures de magasin, et (2) a exécuté le design et la fabrication de devantures de magasin en aluminium durant une période d'au moins dix (10) ans. (Nom de l'entreprise)
 5. Rapports d'essais : Soumettre des rapports d'essais vérifiant la conformité avec chacune des exigences d'essais liées à cet ouvrage.
 6. Échantillons : Soumettre des échantillons de profilés de produits typiques dans les grandeurs standards du fabricant et des échantillons de finis.
- D. Acceptation de la substitution : L'acceptation sera donnée par écrit, sous forme d'un addenda ou d'un avis de modification, et documentée par un ordre formel de modification signé par le Propriétaire et l'Entrepreneur.

2.2 MATERIAUX

- A. Extrusions en aluminium : Alliage et état de dureté recommandés par le fabricant de portes battantes vitrées avec cadres en aluminium pour la robustesse, la résistance à la corrosion et l'application du fini requis; épaisseur des parois minimale de 0,090 po à n'importe quel endroit pour le cadre principal et les montants du châssis.
- B. Fixations : Aluminium, acier inoxydable non magnétique ou autres matériaux résistant à la corrosion et compatibles avec les montants, quincaillerie, ancrages et autres composants des portes coulissantes vitrées avec cadres en aluminium.
- C. Ancrages, attaches et accessoires : Aluminium, acier inoxydable non magnétique, ou acier ou fer galvanisé conforme à la norme ASTM B 633 pour les

- conditions d'utilisation intenses de type SC 3 ou autre revêtement de zinc approprié; suffisamment robustes pour résister à la pression nominale indiquée.
- D. Montants de renforcement : Aluminium, acier inoxydable non magnétique ou acier nickelé/chromé conforme à la norme ASTM B 456 pour les conditions d'utilisation intenses de type SC 3, ou acier ou fer galvanisé conforme à la norme ASTM B 633 pour les conditions d'utilisation intenses de type SC 3 ou autre revêtement de zinc approprié; suffisamment robustes pour résister à la pression nominale indiquée.
1. Joints d'étanchéité : Fournir un coupe-froid avec ailette étanche intégrée ou ailettes en polypropylène ou en matériau revêtu de polypropylène semi-rigide. Respecter la norme AAMA 701/702.

2.3 SYSTÈME DE CADRES DE DEVANTURES DE MAGASIN

NOTE AU RÉDACTEUR DU CAHIER DES CHARGES : CHOISIR LE TYPE DE CADRES POUR LES ENTRÉES (TRIFAB VG 450, TRIFAB VG 451 OU TRIFAB 451T) EN FONCTION DES EXIGENCES DU PROJET.

- A. Cadres des entrées de devanture de magasin (Trifab® VG 450/451/451T) : 1. Cadres des entrées à barrière thermique – Barrière thermique IsoLock® de Kawneer avec une séparation de 0,25 po (6,4 mm), constituée de deux composés de polyuréthane de haute densité à durcissement chimique, et qui est collée et jointe mécaniquement aux sections en aluminium des devantures de magasins.
 - a. La barrière thermique doit être conçue en conformité avec la norme AAMA TIR-A8 et soumise aux essais conformément à la norme AAMA 505.
- B. Supports et renforts : Aluminium à haute résistance standard du fabricant avec cales non ferreuses ne tachant pas pour l'alignement des composants du système.
- C. Accessoires et attaches : Accessoires et attaches standards du fabricant résistant à la corrosion, ne tachant pas, ne coulant pas et compatibles avec les matériaux adjacents. Lorsque ces composants sont apparents, ils doivent être en acier inoxydable.
- D. Dispositifs d'ancrage au périmètre : Lorsque des dispositifs d'ancrage en acier sont utilisés, fournir l'isolation à poser entre les matériaux en acier et les matériaux en aluminium afin de prévenir toute action galvanique.
- E. Emballage, expédition, manutention et déchargement : Expédier les matériaux dans les contenants originaux du fabricant, non ouverts, non endommagés et portant des étiquettes d'identification intactes.
- F. Stockage et protection : Stocker les matériaux de façon à les protéger contre les intempéries. Manutentionner les matériaux de devantures de magasins les composants de manière à éviter les dommages. Protéger les matériaux de devantures de magasins contre les dommages qui pourraient être causés par les éléments, les travaux de construction et autres, susceptibles de les abîmer avant, durant et après l'installation des devantures de magasins.

2.4 VITRAGE

- A. Vitrage : Tel que spécifié dans la section sur les vitrages de la Division 08.
- B. Joints d'étanchéité de vitrage : Types de compression standards du fabricant; caoutchouc EPDM extrudé remplaçable.
- C. Intercalaires et calages d'appui : Type élastomérique standard du fabricant.
- D. Ruban anti-adhérence : Matériau de tétrafluoroéthylène ou de polyéthylène standard du fabricant auquel les produits de scellement n'adhèrent pas.

2.5 QUINCAILLERIE

- A. Généralités : Fournir la quincaillerie standard du fabricant faite d'aluminium, d'acier inoxydable ou d'un autre matériau résistant à la corrosion et compatible avec l'aluminium; conçue pour fonctionner efficacement, assurer une fermeture étanche et verrouiller de façon sécuritaire les portes d'entrée avec cadre en aluminium.
- B. Quincaillerie standard :
 1. Coupe-froid :
 - a. Les montants contigus d'une paire de portes doivent être munis d'un astragale réglable utilisant un coupe-froid en laine peluchée avec ailette de polymère.
 - b. Les coupe-froid pour les cadres et portes à action simple à pivots décentrés ou à charnières (porte simple ou paire de portes) doivent être un coupe-froid Sealair® de Kawneer. Ce type de coupe-froid est composé d'élastomère thermoplastique de forme tubulaire avec endos de polymère semi-rigide.
 2. Coupe-froid continu à la base : Bande de garniture d'étanchéité en élastomère EPDM dans un profilé d'aluminium appliqué sur la surface intérieure apparente de la traverse inférieure à l'aide d'attaches dissimulées (nécessaire pour satisfaire aux essais de rendement spécifiés).
 3. Seuil : Aluminium extrudé, avec surface nervurée, d'une seule pièce par ouverture de porte.
 4. Pivots centrés : [_____].
 5. Pivots décentrés : [_____]. (Note : Pivot décentré EL offert pour le système de contrôle d'accès.)
 6. Charnière : [_____]. La charnière standard de Kawneer est fait d'acier inoxydable avec revêtement de poudre et axe inamovible (NRP). (Note : Charnière EL offerte pour le système de contrôle d'accès.)
 7. Charnière continue : [_____].
 8. Barre de poussée/Poignée : Style [_____].
 9. Dispositif de sortie de secours : [_____].
 10. Ferme-porte : [_____].
 11. Serrure sécuritaire/Serrure à pêne dormant : Battant actif [_____]; battant inactif [_____].
 12. Poignée de type levier : [_____].

Groupe 01 / Portes # P105, P106, P109, P111 et P112

QTÉ	DESCRIPTION		FINI	MANUFACTURIER
1	Charnière continue robuste en acier inoxydable	FM3500 x H.P.	630	Markar
1	Verrou anti-panique en surface fonction à clés	ED4200S x K157 x 6P	630	Corbin/Russwin
1	Cylindre à tige	Tel que le Standard de l'édifice x CME	626	Corbin/Russwin
1	Ferme porte robuste avec bras " top jamb" et arrêt absorbant	281-OZ x plaque de montage281-D	689	Sargent
1	garniture d'étanchéité autocollante, caoutchoutée			
1	longueur de coupe froid, caoutchoutée			
2	longueurs de coupe froid,caoutchoutées			
1	coupe bise,			
1	seuil en aluminium avec bris thermique,			

Note :

- Les quantités indiquées sont les quantités unitaires requises pour chacune des portes citées en référence.
- Seuil, garnitures d'étanchéités et verrous encastrés fournis et installés par le manufacturier des portes et cadres d'aluminium.
La quincaillerie devra être coordonné avec le manufacturier des portes et cadres en aluminium

Groupe 01A / Porte # P110 anciennement 15A

QTÉ	DESCRIPTION		FINI	MANUFACTURIER
1	Charnière continue robuste en acier inoxydable	FM3500 x H.P.	630	Markar
1	Verrou anti-panique en surface fonction à clés	ED4200S x K157 x 6P	630	Corbin/Russwin
1	Cylindre à tige	Tel que le Standard de l'édifice x CME	626	Corbin/Russwin
1	Poignée à tirer	1194-4 montage type N	630	Trimco/BBW
1	Ferme porte robuste avec bras " top jamb" et arrêt absorbant	281-OZ x plaque de montage281-D	689	Sargent
1	Gâche électrique	310-4 x 24VDC	630	Folger Adam
1	garniture d'étanchéité autocollante, caoutchoutée			
1	longueur de coupe froid, caoutchoutée			
2	longueurs de coupe froid,caoutchoutées			
1	coupe bise,			
1	seuil en aluminium avec bris thermique,			

Note :

- Seuil, garnitures d'étanchéités et verrous encastrés fournis et installés par le manufacturier des portes et cadres d'aluminium.
La quincaillerie devra être coordonné avec le manufacturier des portes et cadres en aluminium

Groupe 02 / Portes# 103, 104

QTÉ	DESCRIPTION		FINI	MANUFACTURIER
2	Charnière continue robuste en acier inoxydable	FM3500 x H.P.	630	Markar
1	Verrou anti-panique avec tige verticale encastré fonction à clés	ED4800 x M54 x K157-6P x largeur de porte x hauteur de porte	630	Corbin/Russwin
1	Verrou anti-panique avec tige verticale encastré fonction sortie seulement	ED4800 x M54 x largeur de porte x hauteur de porte	630	Corbin/Russwin
1	Cylindre à tige	Tel que le Standard de l'édifice x CME	626	Corbin/Russwin
2	Poignée à tirer	1191-4J montage type N	630	Trimco/BBW
2	Ferme porte robuste avec bras " top jamb" et arrêt absorbant	281-OZ x plaque de montage281-D	689	Sargent
1	garniture d'étanchéité autocollante, caoutchoutée			
1	longueur de coupe froid, caoutchoutée			
2	longueurs de coupe froid,caoutchoutées			
1	coupe bise,			
1	seuil en aluminium avec bris thermique,			

Note :

- Les quantités indiquées sont les quantités unitaires requises pour chacune des portes citées en référence.
- Seuil, garnitures d'étanchéités et verrous encastrés fournis et installés par le manufacturier des portes et cadres d'aluminium.
La quincaillerie devra être coordonné avec le manufacturier des portes et cadres en aluminium.

Groupe 03 / Portes# P101, P102, P107, P108

QTÉ	DESCRIPTION	FINI	MANUFACTURIER
2	Charnière continue robuste en acier inoxydable	FM3500 x H.P	630 Markar
2	Verrou anti-panique avec tige verticale encastré fonction sortie seulement	ED4800 x M54 x largeur de porte x hauteur de porte	630 Corbin/Russwin
2	Ferme porte robuste avec bras " top jamb " et arrêt absorbant	281-OZ x plaque de monatge281-D	689 Sargent
1	garniture d'étanchéité autocollante, caoutchoutée		
1	longueur de coupe froid, caoutchoutée		
2	longueurs de coupe froid,caoutchoutées		
1	coupe bise,		
1	seuil en aluminium avec bris thermique,		

2.6 FABRICATION

- A. Fabriquer des portes d'entrée vitrées avec cadres en aluminium des tailles indiquées. Inclure un système complet permettant d'assembler les composan et d'ancrer les portes.
- B. Fabriquer des portes d'entrée vitrées avec cadres en aluminium pouvant être revitrées sans démanteler le cadre du périmètre.
1. L'assemblage des coins des portes consistera en une fixation mécanique, une soudure profonde à points SIGMA et des soudures en cordon de 1/8 po (29 mm) de long à l'intérieur et à l'extérieur de chacun des quatre coins. Les parcloes doivent être de type à enclenchement avec garnitures de vitrage en EPDM renforcées d'un cordon non extensible.
 2. Assembler les coins et les joints avec précision de manière à ce qu'ils présentent des lignes nettes.
 3. Préparer les composants au moyen de renforts internes pour recevoir la quincaillerie de porte.
 4. Faire en sorte que les attaches et les dispositifs de fixation ne soient pas apparents.
- C. Coupe-froid : Fournir un coupe-froid fixé dans les rainures extrudées des panneaux de porte ou des cadres tel qu'indiqué dans les dessins et les détails fabricant.

2.7 FINIS, GÉNÉRALITÉS

- A. Respecter la section « Anodic Finishes/Painted Aluminum » de la AAMA-AFPA pour les recommandations d'application et de désignation des finis.
- B. Apparence du travail terminé : Des variations d'apparence des pièces voisines ou adjacentes sont acceptables si elles se situent dans une moitié de la gamme d'échantillons approuvés. Des variations perceptibles dans la même pièce ne sont pas acceptables. Des variations d'apparence d'autres composants sont acceptables si elles se situent dans la gamme d'échantillons approuvés et sont assemblées ou installées de façon à minimiser le contraste.

2.8 FINIS POUR ALUMINIUM

- A. Les désignations de finis commençant par « AA » respectent le système établi par l'Aluminum Association pour la désignation des finis pour aluminium.
- B. Finis appliqués en usine :
1. Kawneer Permanodic® AA-M10C22A31, AAMA 611, catégorie architecturale II anodisation transparente (Couleur Naturel n° 17) (standard).

PARTIE 3 - EXÉCUTION**3.1 EXAMEN**

- A. Examiner les ouvertures, substrats, supports structuraux, ancrages et conditions, avec l'installateur présent, pour vérifier la conformité aux exigences de tolérances d'installation et les autres conditions influant sur la performance du travail. Vérifier les dimensions approximatives des ouvertures, la nivelanc des pièces d'appui et les autorisations opérationnelles. Examiner les solins des murs, les pare-vapeur, les barrières de protection contre l'eau et les intempéries ainsi que les autres composants intégrés pour faire en sorte que l'installation soit coordonnée et étanche.
1. Surfaces de maçonnerie : Visiblement sèches et libres de tout excès de mortier, sable et autres débris de construction.
 2. Murs à charpente en bois : Secs, propres, en bon état, bien cloués, libres de tout vide et sans décalage au niveau des joints. Vérifier que les têtes de dous sont enfoncées au niveau des surfaces dans les ouvertures et à moins de 3 po (76 mm) de celles-ci.
 3. Surfaces métalliques : Sèches, propres, libres de toute graisse, huile, saleté, rouille, corrosion et crasse de soudure; sans bords coupants ou décalages au niveau des joints.
 4. Procéder à l'installation seulement après que les conditions insatisfaisantes ont été corrigées.

3.2 INSTALLATION

- A. Respecter les dessins, les dessins d'atelier et les instructions écrites du fabricant pour l'installation de portes battantes avec cadres en aluminium, de la quincaillerie, des accessoires et des autres composants.
- B. Installer les portes battantes avec cadres en aluminium droites, d'aplomb, d'équerre, parfaitement alignées, sans distorsion ou empêchement des mouvements thermiques, ancrées bien en place dans les supports structuraux et de façon appropriée relativement aux solins des murs et à toute autre construction adjacente.
- C. Fixer l'appui du seuil dans un lit de scellant, tel qu'indiqué, pour une construction imperméable.
- D. Séparer l'aluminium et les autres surfaces corrodables des sources de corrosion ou de l'action électrolytique aux points de contact avec d'autres matériaux.

3.3 CONTRÔLE DE LA QUALITÉ SUR LE TERRAIN

- A. Services sur le chantier par le fabricant : À la demande écrite du Propriétaire, assurer des visites périodiques du chantier par le représentant des services sur le chantier du fabricant.

3.4 AJUSTEMENT, NETTOYAGE ET PROTECTION

- A. Nettoyer les surfaces en aluminium immédiatement après l'installation des devantures de magasins avec cadres en aluminium. Éviter d'endommager les revêtements et les finis protecteurs. Enlever tout excès de scellant, matériaux de vitrage, saleté et autres substances.
- B. Nettoyer les vitres immédiatement après l'installation. Respecter les recommandations écrites du fabricant du verre pour le nettoyage et l'entretien finaux. Enlever les étiquettes non permanentes et nettoyer les surfaces.
- C. Enlever et remplacer toute vitre brisée, ébréchée, fendue, abrasée ou endommagée durant la période de construction.

FIN DE LA SECTION 08400

PARTIE 1 - GÉNÉRALITÉS

1.1 DESCRIPTION

- .1 La présente section sert à prescrire des produits d'étanchéité et de calfeutrage ne faisant l'objet d'aucune indication dans les autres sections.
- .2 Se reporter aux sections pertinentes afin d'obtenir d'autres prescriptions concernant les produits d'étanchéité et de calfeutrage.

1.2 NORMES DE RÉFÉRENCE

- .1 CAN/CGSB-19.13-M87, Mastic d'étanchéité à un seul composant, élastomère, à polymérisation chimique.
- .2 CAN/CGSB-19.21-M87, Mastic d'étanchéité et de scellement pour l'isolation acoustique.
- .3 CAN/CGSB-19.24-M80, Mastic d'étanchéité à plusieurs composants, à polymérisation chimique.

1.3 LIVRAISON, ENTREPOSAGE ET MANUTENTION

- .1 Livrer et entreposer les matériaux dans les contenants et emballages d'origine portant le seau intact du fabricant. Préserver les matériaux de l'eau, de l'humidité et du gel.

1.4 EXIGENCES RELATIVES À LA SÉCURITÉ ET À L'ENVIRONNEMENT

- .1 Satisfaire aux exigences du Système d'information sur les matières dangereuses utilisées au travail (SIMDUT) concernant l'usage, la manutention, l'entreposage et l'élimination des matières dangereuses ainsi que l'étiquetage et la fourniture de fiches signalétiques reconnues par Travail Canada.
- .2 Respecter les recommandations du fabricant concernant les températures, l'humidité relative et la teneur en humidité du support en vue de l'application et du séchage des produits d'étanchéité, y compris les directives spéciales relatives à leur utilisation.

PARTIE 2 - PRODUITS

2.1 PRODUITS D'ÉTANCHÉITÉ

- .1 Les produits d'étanchéité sélectionnés pour ce projet doivent figurer sur la liste des produits homologués dressée par la Commission d'homologation des produits d'étanchéité de l'ONGC. Dans le cas de produits d'étanchéité homologués avec un primaire, seul le primaire en question doit être utilisé avec ledit produit d'étanchéité.
- .2 **CELLANT TYPE 1 / DYMÉRIC 240 de TREMCO** : conforme à la norme CAN-19.13-M87.: L'utiliser pour exécuter au pourtour des cadrages de fenêtres intérieures et extérieure et partout où montrés aux plans.
- .3 **CELLANT TYPE 2 / coupe-feu A/D Silicone Firebarrier**: conforme à la norme CAN-19.13-M87 et ayant subi des essais selon la norme CAN 4-S115-M. Utiliser à la tête des cloisons coupe-feu, autour des tuyaux où conduits qui traversent ces cloisons. Installer partout où montrés aux plans conjointement avec l'isolant de fibre minérale du fabricant pour assurer l'homologation de l'ensemble.

- .4 **CELLANT TYPE 3 / silicone de marque GE** : conforme à la norme CAN-19.13-M87. Utiliser à la rencontre du mobilier intégré (armoires, comptoirs, tablettes, ...) et des murs.

2.2 MATÉRIAUX DE SUPPORT

- .1 Mousses de polyéthylène, d'uréthane, de néoprène ou de vinyle.
1. Fond de joint en mousse extrudée à cellules fermées.
 2. Éléments surdimensionnés de 30 à 50 %.
- .2 Caoutchouc butyle ou néoprène
1. Tige pleine et arrondie, de dureté 70 à l'échelle Shore A.
- .3 Mousse de haute densité
- 2.2.3.1 Fond de joint de néoprène ou de polychlorure de vinyle (PVC) extrudé à cellules fermées.
- .4 Produit anti-adhérence
1. Ruban anti-adhérence en polyéthylène ne collant pas au produit d'étanchéité.
- .5 Membrane auto-adhésive: 1.5 mm d'épaisseur telle que Bituthène de Grace, ou équivalent approuvé, avec apprêt recommandé par le fabricant.

2.3 PRODUITS DE NETTOYAGE POUR JOINTS

- .1 Produit de nettoyage non corrosif et non salissant, compatible avec les matériaux constituant le joint et les produits d'étanchéité, et recommandé par le fabricant du produit d'étanchéité.
- .2 Primaire: selon les indications du fabricant.

PARTIE 3 - EXÉCUTION

3.1 PRÉPARATION DES SURFACES

- .1 Vérifier les dimensions du joint à réaliser et l'état des matériaux afin d'obtenir un rapport largeur-profondeur adéquat en vue de la mise en oeuvre des matériaux de support et des produits d'étanchéité.
- .2 Débarrasser les surfaces du joint de toute matière indésirable, incluant la poussière, la rouille, l'huile, la graisse et autre corps étranger pouvant nuire à l'exécution ou à l'efficacité des travaux.
- .3 Ne pas appliquer de produits d'étanchéité sur les surfaces du joint traitées avec un bouche-pore, mélange de séchage, produit hydrofuge ou autre revêtement à moins que des essais préalables n'aient confirmé la compatibilité de ces matériaux. Enlever les revêtements recouvrant déjà les surfaces, au besoin.
- .4 Vérifier que les surfaces du joint sont bien asséchées et ne sont pas gelées.
- .5 Apprêter les surfaces conformément aux directives du fabricant.

3.2 PRIMAIRE

- .1 Avant d'appliquer le primaire et le produit de calfeutrage, masquer au besoin les surfaces adjacentes afin d'éviter les ternissures.

- .2 Immédiatement avant de mettre en oeuvre le produit de calfeutrage, appliquer le primaire sur les surfaces latérales du joint, conformément aux instructions du fabricant du produit d'étanchéité.

3.3 MATÉRIAUX DE SUPPORT

- .1 Poser le ruban anti-adhérence aux endroits requis, conformément aux instructions du fabricant.
- .2 Poser un mastic de jointoiment permettant d'obtenir la profondeur et le profil de joint appropriés.

3.4 PRÉPARATION DES PRODUITS D'ÉTANCHÉITÉ

- .1 Effectuer le mélange des matériaux en respectant rigoureusement les instructions du fabricant du produit d'étanchéité.

3.5 MISE EN OEUVRE

- .1 Produit d'étanchéité
 1. Mettre en oeuvre le produit d'étanchéité conformément aux directives du fabricant.
 2. Appliquer le produit en formant un cordon d'étanchéité continu.
 3. Appliquer le produit d'étanchéité à l'aide d'un pistolet muni d'une tuyère de dimensions appropriées.
 4. Utiliser une pression d'alimentation suffisamment forte pour remplir les vides et obturer parfaitement la surface des joints.
 5. Réaliser les joints de manière à former un cordon d'étanchéité continu exempt d'arêtes, de plis, d'affaissements, de vides d'air et de saletés enrobées.
 6. Façonner les surfaces apparentes afin de leur donner un profil légèrement concave.
 7. Enlever le surplus de produit d'étanchéité au fur et à mesure que les travaux progressent ainsi qu'à la fin des travaux.
- .2 Séchage
 1. Assurer le séchage des produits d'étanchéité conformément aux directives du fabricant de ces produits.
 2. Ne pas recouvrir les produits d'étanchéité avant qu'ils ne soient bien secs.
- .3 Nettoyage
 1. Nettoyer immédiatement les surfaces adjacentes et laisser l'ouvrage propre et en parfait état.
 2. Au fur et à mesure que les travaux progressent, enlever le surplus et les bavures de produit d'étanchéité à l'aide des produits de nettoyage recommandés.
 3. Enlever le ruban de masquage à la fin de la période initiale de prise des joints.

FIN DE SECTION

1 Généralités

1.1 TRAVAUX CONNEXES

- .1 Section 08900 Mur-rideau

2 Produits

2.1 MATERIAUX DE VERRE

- .1 Vitrage isolant: conforme à la norme CAN2-12-8-M76, incluant le modificatif de juin 1979, 25 mm d'épaisseur.

Verre double scellé selon la norme CAN/CGSB-12.8-M97 avec verre extérieur, 6mm Sunguard SN 68 (#2) Low « E », selon la norme CAN/CGSB-12.4-M91, renforcie à la chaleur avec intercalaire en aluminium à conductivité faible, et verre intérieur 6mm clair selon la norme CAN/CGSB-12.3-M91 .Espace d'air de 12 mm remplis de gaz argon à 90%.

Spécifications :

- Transmission visible de minimum 67%; maximum 69%
- Coefficient d'ombrage minimum 0.42; maximum 0.43
- Valeur U hiver minimum 0.28; maximum 0.29
- Coefficient de gain de chaleur solaire minimum 0.37; maximum 0.38
- Gain de lumière solaire minimum 1.75; maximum 1.80

- .2 Verre armé: conforme à la norme CAN2-12.1-M76, à treillis à mailles carrées de 12 mm en fils d'acier soudés à leurs intersections, de 6 mm d'épaisseur.

- .3 Verre laminé de sécurité : conforme à CAN/CGSB-12.1-M90, 6mm. d'épaisseur.

- .4 Verre trempé : conforme à CAN 2-12.1 M79, de type 2, 6mm. d'épaisseur.

2.2 MATERIAUX DE VITRAGE ET D'ETANCHEITE

- .1 Seuls les produits qui figurent sur la liste des produits homologués publiée par l'ONGC sont acceptables aux fins des présents travaux.

- .2 Produit d'étanchéité: mastic à base d'acrylique à un seul composant, conforme à la norme CGSB 19-GP-5M, applicable au pistolet.

2.3 ACCESSOIRES

- .1 Bande autocollante pour vitrage: bande préformée, en butyle, indice de dureté 10-15 au duromètre, avec papier anti-adhérence détachable, de dimensions appropriées.

- .2 Cales d'assise: en néoprène, indice de dureté au duromètre Shore "A", 100 mm de longueur x 6 mm de hauteur, de largeur appropriée à l'épaisseur du verre.
- .3 Cales périphériques: en néoprène, indice de dureté au duromètre Shore "A", 75 mm de longueur x 2.4 mm d'épaisseur x mm de hauteur.
- .4 Pointes de vitrier et pinces en fil à ressort: résistant à la corrosion, de fabrication courante.
- .5 Apprêts de scellement et produits nettoyants: selon les spécifications du fabricant du verre.

3 Exécution

3.1 QUALITE D'EXECUTION

- .1 Enlever les enduits protecteurs, nettoyer les surfaces de contact à l'aide d'un solvant et assécher.
- .2 Appliquer une couche d'apprêt de scellement sur les surfaces de contact.
- .3 Placer les cales d'assise selon les instructions du fabricant.
- .4 Mettre la vitre en place, l'appuyer sur les cales d'assise et assurer une adhérence parfaite sur tout le pourtour.
- .5 Placer les parcloles amovibles en évitant de déplacer la bande autocollante ou le produit d'étanchéité.
- .6 Laisser un jeu d'au moins 3 mm sur les bords.
- .7 Insérer les cales périphériques de façon à bien centrer la vitre dans le cadre. Placer les cales à 600 mm d'entraxe et les maintenir à 6 mm sous la ligne de vision.
- .8 Appliquer un cordon du produit d'étanchéité Visionstrip de TREMCO du côté extérieur de la feuillure.
- .9 Appliquer le produit d'étanchéité de manière à former un cordon uniforme et de niveau, dressé à égalité de la ligne de vision et façonné à l'aide de l'outil approprié ou essuyé au solvant pour un fini bien lisse.
- .10 Ne pas découper ni roder le verre trempé, traité à la chaleur ou muni d'un revêtement.

3.2 VITRAGE EXTERIEUR

- .1 Monter le vitrage selon les instructions du fabricant.

3.3 FINITION

- .1 Nettoyer immédiatement les surfaces finies, en enlevant les bavures de mastic et les gouttes de produit d'étanchéité. Une fois le travail terminé, enlever les étiquettes.
- .2 Nettoyer immédiatement les surfaces intérieures et extérieures des unités scellées.

FIN DE SECTION

SECTION 08900 MURS RIDEAUX VITRÉS EN ALUMINIUM

Ce devis type suggéré a été élaboré à l'aide de l'édition courante du «Manual of Practice» du Construction Specifications Institute (CSI), y compris la structure en 3 parties et la mise en page recommandées par le CSI. De plus, pour la préparation de ce devis type nous avons adopté le concept mis au point ainsi que la méthodologie proposée dans le programme principal de l'American Institute of Architects (AIA). Ni le CSI ni l'AIA n'endossent les fabricants et les produits spécifiques indiqués. Le devis type a été préparé en assumant l'utilisation de documents et de formules contractuels standard, comprenant les «Conditions du marché à forfait» (Conditions of the Contract), publiées par l'AIA.

PARTIE 1 – GÉNÉRALITÉS

1.1 Sommaire

1.1.1 Cette section comprend: Systèmes de murs rideaux en aluminium à usage architectural de Kawneer, comprenant les garnitures de périmètre, les appuis de fenêtres, les accessoires, les cales et dispositifs d'ancrage et le scellement du périmètre des cadres de murs rideaux.

1.1.1.1 Les types de murs rideaux en aluminium de Kawneer comprennent: Mur rideau de la série 1600 Classique - éléments structuraux de 2 ½'' po x 2'' po (63.5 x 50) 2 ½'' po x 4 po (63.5 x 101.6) ou 5-1/4'' po (133.4), vitré de l'extérieur avec plaques de pression.

1.1.2. Sections connexes:

1.1.2.1 Division 06100 «Faux cale et cales en bois»

1.1.2.2 Division 07140 «Revêtement d'aluminium architectural»

1.1.2.3 Division 07900 «produit d'étanchéité»

1.1.2.4 Division 08710 «Pièce de quincaillerie et de finition»

1.1.2.5 Division 08800 «Vitrage»

1.2 Références (normes de l'industrie)

NOTE AU RÉDACTEUR DU CAHIER DES CHARGES: SE REPORTER À L'INDEX POUR N'IMPORTE QUELLE OU TOUTES LES NORMES APPLICABLES.

1.3 Description du système

LES RÉSULTATS DE LA RÉSISTANCE À L'INFILTRATION D'AIR ET D'EAU SONT BASÉS SUR LES NORMES ASTM ET AAMA. LES RÉSULTATS DÉMONTRANT UN NIVEAU DE PERFORMANCE PLUS ÉLEVÉ ONT ÉTÉ CERTIFIÉS ET SONT DISPONIBLES. CONSULTEZ LE REPRÉSENTANT ARCHITECTURAL KAWNEER DE VOTRE RÉGION RELATIVEMENT AUX EXIGENCES DE RENDEMENT REQUISES POUR UN OUVRAGE SPÉCIFIQUE.

1.3.1. Exigences de rendement des systèmes de murs rideaux:

NOTE AU RÉDACTEUR DU CAHIER DES CHARGES: FOURNIR LES PRESSIONS ADMISSIBLES DES CHARGES DUES À LA POUSSÉE DU VENT EN lb/pi² ET INCLURE LE CODE DU BÂTIMENT APPLICABLE ET L'ANNÉE DE L'ÉDITION PAR INGÉNIEUR DU FABRICANT

- 1.3.1.1 Charges dues à la poussée du vent:** Fournir le système de mur rideau, y compris l'ancrage, pouvant supporter les pressions admissibles des charges dues à la poussée du vent de 20 lb/pi² ou ()Pa, sens positif et 20 lb/pi² ou ()Pa, sens négatif. Les pressions admissibles sont basées sur le code du bâtiment de 2005; Édition().
- 1.3.1.2 Infiltration d'air: L'échantillon doit être soumis aux essais effectués conformément à la norme E 283 de l'ASTM. Le niveau d'infiltration d'air ne doit pas être supérieur à 0,06 pi³/m/pi² (0,3 l/s·m²) à une pression différentielle statique d'air de 6,24 lb/pi² (300 Pa).
- 1.3.1.3 Résistance à l'eau (statique): L'échantillon doit être soumis aux essais effectués conformément à la norme E 331 de l'ASTM. Il ne doit pas y avoir de fuite d'eau à une pression différentielle statique d'air de 10 lb/pi² (479 Pa) telle que définie dans la norme AAMA 501.
- 1.3.1.4 Résistance à l'eau (dynamique): L'échantillon doit être soumis aux essais effectués conformément à la norme AAMA 501.1. Il ne doit pas y avoir de fuite d'eau à une pression différentielle d'air de 10 lb/pi² (479 Pa) telle que définie dans la norme AAMA 501.
- 1.3.1.5 Le rendement structural doit être basé sur la norme "Specification for Aluminum Structures" de l'Aluminum Association ou de la norme CAN3-S157 de l'ACNOR «Calcul de la résistance mécanique des éléments en aluminium». Il ne doit pas y avoir de flexion de plus de L/175 de la portée de n'importe quel élément de cadre à la charge spécifiée.

LES RÉSULTATS DES ESSAIS DE TRANSMISSION THERMIQUE ET DE RÉSISTANCE À LA CONDENSATION EN CONFORMITÉ AVEC LA NORME AAMA 1503 OU CSA A440 SONT BASÉS SUR L'UTILISATION DE VERRE CLAIR ISOLÉ À HAUTE PERFORMANCE DE 1 po, (1/4 po (E=0,035, N° 2), 1/2 po D'INTERCALAIRE HELIMA DE TYPE AVEC BORDURE CHAUDE ET UN ESPACE DE 1/4 po REMPLI DE GAZ ARGON). SE REPORTER AUX GRAPHIQUES DE TRANSMISSION THERMIQUE POUR LES COEFFICIENTS U DES OUVRAGES SPÉCIFIQUES EN CONFORMITÉ AVEC LA NORME 507 DE L' AAMA POUR LE COEFFICIENT DU GAIN DE CHALEUR SOLAIRE (SHGC) ET DE LA TRANSMISSION DE RAYONNEMENT SOLAIRE VISIBLE (VT). SE REPORTER AU TABLEAU DE RENDEMENT THERMIQUE POUR LES VALEURS DU NFRC.

- 1.3.2 Transmission thermique (coefficient U): Lorsque soumis aux essais effectués conformément à la norme 1503 de l'AAMA, la transmission thermique (coefficient U) ne doit pas être supérieure à 0,40 (faible émissivité).
- 1.3.3 Résistance à la condensation (CRF): Lorsque soumis aux essais effectués conformément à la norme 1503 de l'AAMA, le facteur de résistance à la condensation ne doit pas être inférieur à 68_{cadre} et 67_{verre} (faible émissivité),
- 1.3.4 ou Indice de température relatif à la condensation (I): Lorsque soumis aux essais effectués conformément à la norme CSA-A440-00, l'indice de température relatif à la condensation ne doit pas être inférieur à: Verre retenu en place par des couvercles - 55_{cadre} et 60_{verre} (clair).

1.4 À présenter

- 1.4.1 Généralités: Préparer, vérifier, approuver, et soumettre la documentation et/ou les échantillons spécifiés en conformité avec les «Conditions du marché à forfait» et les sections relatives aux documents et/ou aux échantillons à fournir. Les données de rendement du produit, les dessins d'atelier, les échantillons et les documents similaires à fournir sont définis dans les «Conditions du marché à forfait».
- 1.4.2 Documents à fournir relatifs à l'assurance/contrôle de la qualité:
- 1.4.2.1 Rapports d'essais: Soumettre des rapports d'essais certifiés démontrant la conformité avec les caractéristiques de performance spécifiées.

1.5 Garantie

- 1.5.1 Garantie de l'ouvrage: Pour les dispositions de la garantie de l'ouvrage, se reporter aux «Conditions du marché à forfait».
- 1.5.2 Garantie du produit par le fabricant: Soumettre, pour l'acceptation par le propriétaire, la garantie du fabricant pour le système de mur rideau comme suit:
- 1.5.2.1 Période de garantie: Deux (2) ans à compter de la date d'achèvement de la grande part des travaux à condition cependant que la garantie limitée

ne puisse en aucun cas commencer après six mois de la date d'expédition par Kawneer.

1.6 Assurance de la qualité

1.6.1 Compétence:

- 1.6.1.1 Compétence de l'installateur: L'installateur a la compétence voulue (telle que déterminée par l'entrepreneur) pour exécuter les travaux de cette section, il s'est spécialisé dans l'installation de travaux similaires à ceux exigés pour cet ouvrage et a reçu l'approbation du fabricant du produit.
- 1.6.1.2 Compétence du fabricant: Le fabricant doit pouvoir fournir les calculs de structure, les rapports d'essais applicables faits par une compagnie indépendante pour les produits concernés, les instructions d'installation, les informations sur la méthode d'application, l'approbation du client et assurer un service de représentation périodique sur le chantier durant la construction.

- 1.6.2 Réunions avant l'installation: Mener des réunions avant l'installation afin de vérifier les exigences de l'ouvrage, les conditions du substrat, les instructions d'installation du fabricant, et les exigences de garantie du fabricant.

1.7 Expédition, stockage et manutention

- 1.7.1 Commandes d'achat: Se conformer aux instructions de modalités de commande du fabricant ainsi qu'aux délais requis afin d'éviter les délais de construction.
- 1.7.2 Emballage, expédition, manutention et déchargement: Expédier les matériaux dans les contenants originaux du fabricant, non ouverts, non endommagés, munis d'étiquettes d'identification intactes.
- 1.7.3 Stockage et protection: Stocker les matériaux de façon à les protéger contre les intempéries qui pourraient les endommager. Manutentionner les matériaux et les composantes de manière à éviter les dommages. Protéger les matériaux de murs rideaux contre les dommages qui pourraient être causés par les éléments et travaux de construction, et contre les autres matériaux susceptibles de les abîmer avant, durant et après l'installation des murs rideaux.

PARTIE 2 – PRODUITS**2.1 Fabricants (Fabricants/Produits acceptables)****2.1.1 Fabricants acceptables:**

2.1.1.1 Adresse: Kawneer Company, Inc.
555 Guthridge Court,
Technology Park/Atlanta,
Norcross, GA 30092
Téléphone: 770 449- 5555
Télécopieur: 770 734-1560.

2.1.2 Fabricants/Produits alternatifs: Au lieu de fournir les produits du fabricant spécifié ci-dessous dans la soumission/contrat de base, indiquer ci-dessous les fabricants spécifiés comme autres choix. Se reporter à la section Substitutions.

2.1.2.1 Produit/Fabricant spécifié dans la soumission/contrat de base: Kawneer Company, Inc.

2.1.2.1.1 Produit: Mur rideau en aluminium de Kawneer

2.1.2.1.2 Série: 1600 Classique.

c. Profil des éléments de cadre: Éléments de 2 ½''po x ±2''po ou 2 ½''po x 4 po ou 5 ¼'' po.

C. Substitutions:

1. Généralités: Se reporter à la section Substitutions pour les exigences des procédés et des soumissions.
 - a. Avant l'obtention du contrat (période de soumission) Substitutions : Soumettre les demandes par écrit dix (10) jours avant la date de fermeture de la soumission.
 - b. Après l'obtention du contrat (période de la construction) Substitutions: Soumettre la demande par écrit afin d'éviter les délais d'installation et de construction du mur rideau.
2. Documentation sur les produits de remplacement
 - a. Documentation sur le produit et dessins: Soumettre la documentation sur le produit et les dessins modifiés pour convenir aux exigences spécifiques du projet et aux conditions de l'ouvrage.
 - b. Certificats: Soumettre le(s) certificat(s) certifiant que le fabricant proposé comme substitution (1) s'engage à suivre les exigences spécifiées en vue de rencontrer les critères de rendement du système de mur rideau, et (2) a exécuté le design et la fabrication de murs rideaux en aluminium durant une période qui n'est pas inférieure à dix (10) ans. (Nom de l'entreprise)
 - c. Rapports d'essais: Soumettre des rapports d'essais vérifiant la conformité avec les exigences de chaque essai se rapportant au mur rideau requis pour cet ouvrage.
 - d. Échantillon du produit et du fini: Soumettre un échantillon du produit représentatif du mur rideau requis pour cet ouvrage, comportant le fini et la couleur spécifiés.

3. Acceptation de la substitution: L'acceptation sera donnée par écrit, soit sous forme d'un addenda ou de modification, et documentée par un ordre formel de modification signé par le Propriétaire et par l'Entrepreneur.
- 2.2 Matériaux
- A. Aluminium (Murs rideaux et composantes):
1. Matériaux standard: Aluminium extrudé, ASTM B 221, en alliage 6063 -T6 et trempé.
 2. Épaisseur de la paroi des éléments: Chaque élément de cadre doit avoir une épaisseur de paroi suffisante pour satisfaire aux exigences structurales spécifiées.
 3. Tolérances: Les dimensions mentionnées comme tolérances pour les épaisseurs de paroi et les autres dimensions des sections des éléments de cadres de murs rideaux sont des dimensions nominales et sont en conformité avec les normes et les données pour l'aluminium de l'Américan Association (AA).
- 2.3 Accessoires
- A. Attaches: Lorsqu'elles sont apparentes, doivent être en acier inoxydable.
- B. Garnitures: Les garnitures de vitrage intérieures doivent être en conformité avec la norme C 864 de l'ASTM et être en caoutchouc EPDM extrudé, compatible au scellant à la silicone, qui permette l'adhérence du silicone. Les garnitures de vitrage extérieures doivent être le Visionstrip^{MD} de Tremco.
- C. Dispositifs d'ancrage au périmètre: Aluminium. Lorsque des dispositifs d'ancrage en acier sont utilisés, fournir l'isolation entre les matériaux en acier et les matériaux en aluminium afin de prévenir toute action galvanique.
- D. Barrière thermique: La barrière thermique doit être en élastomère extrudé, compatible au scellant à la silicone, qui permette l'adhérence du silicone.
- 2.4 Matériaux connexes
- A. Scellants: Se reporter à la section traitant des joints (Scellants).
- B. Verre: Se reporter à la section Verre et vitrage.
- 2.5 Fabrication
- A. Généralités:
1. Construire les éléments selon les instructions d'installation du fabricant et avec jeux minimums et cales d'espacement le long du périmètre de l'assemblage, tout en facilitant l'installation et permettant le mouvement dynamique du scellement au périmètre.
 2. Assembler les coins et les joints avec précision, de manière à ce qu'ils soient affleurants, présente des lignes nettes et soient étanches.
 3. Préparer les composantes pour recevoir les dispositifs d'ancrage. Fabriquer les ancrages.
 4. Faire en sorte que les dispositifs de fixation et les attaches ne soient pas visibles.
- 2.6 Finis
- A. Finis appliqués en usine:

1. Kawneer Permanodic^{MD} AA-M12C22A31, AAMA 611, enduit anodique naturel de catégorie architecturale II (Couleur Naturel n° 17)

A. Qualité du fournisseur: Fournir les murs rideaux en aluminium spécifiés ici d'un seul fournisseur.

1. Enveloppe du bâtiment: Lorsque les murs rideaux en aluminium font partie de l'enveloppe du bâtiment, incluant les entrées, la quincaillerie pour entrées, les fenêtres, les cadres de devantures de magasins et les produits qui s'y rattachent, fournir les produits destinés à l'enveloppe du bâtiment d'un seul fabricant.

PARTIE 3 – EXÉCUTION

3.1 Inspection

A. Vérification des conditions sur le chantier: Vérifier si les conditions des substrats (qui ont été installés précédemment selon d'autres sections) sont acceptables pour l'installation du produit en conformité avec les instructions du fabricant. Vérifier si les dimensions des ouvertures peuvent recevoir le système de murs rideaux et si l'assise à la base est posée de niveau en conformité avec les tolérances acceptables spécifiées par le fabricant.

1. Mesurage sur le chantier: Vérifier les mesures/ouvertures actuelles en mesurant sur le chantier avant la fabrication; indiquer les mesures enregistrées sur les dessins d'atelier. Coordonner les mesures prises sur le chantier et le calendrier de fabrication avec l'avancement des travaux de construction de façon à prévenir les délais de construction.

3.2 Installation

A. Généralités: Installer le système de murs rideaux de niveau, d'équerre, d'aplomb et aligné sans qu'il y ait gauchissement ou déformation des cadres, en conformité avec les tolérances spécifiées par le fabricant et les instructions d'installation. Mettre en place les supports et les ancrages.

1. Matériaux incompatibles: Isoler les matériaux en aluminium des sources de corrosion ou des points de contact pouvant produire une action électrolytique.
2. Vitrage: Le vitrage doit être effectué de l'extérieur et retenu en place à l'aide de plaques de pression en aluminium extrudé fixées aux meneaux en utilisant des attaches en acier inoxydable.
3. Évacuation de l'eau: Chaque unité de verre doit être scellée de façon à former des compartiments à l'aide de bouchons de coin et de scellant à la silicone afin de diriger l'eau vers les éléments horizontaux munis de trous de drainage. Les trous de drainage doivent être situés dans les plaques de pression horizontales et les couvercles permettant d'évacuer l'eau à l'extérieur du bâtiment.

B. Exigences relatives à l'installation des produits connexes:

1. Scellants (périmètre): Se reporter à la section relative au traitement des joints (Scellants).
2. Verre: Se reporter à la section Verre et vitrage.

a. Références: ANSI Z97.1, CPSC 16 CFR 1201 et le GANA Glazing Manual

3.3 Contrôle de la qualité sur le chantier

A. Essais réalisés sur le chantier: L'ingénieur doit choisir les unités de mur rideau à être soumises aux essais aussitôt qu'une portion représentative de l'ouvrage aura été installée, vitrée, et le calfeutrement du périmètre posé et durci. Mener des essais d'infiltration d'air et d'eau en présence d'un représentant du fabricant. Les essais qui ne rencontrent pas les

exigences de performance spécifiées et les unités ayant des défaillances doivent être corrigées et les coûts ainsi occasionnés feront partie du montant forfaitaire.

1. Essais: Les essais doivent être effectués selon la norme AAMA 503 par un laboratoire d'essai indépendant qualifié. Se reporter à la section des essais pour le paiement des essais et les exigences relatives aux essais.

a. Essais d'infiltration d'air: Effectuer les essais conformément à la norme E 783 de l'ASTM. L'infiltration d'air admissible ne doit pas être supérieure à 1,5 fois le montant indiqué dans les exigences de rendement ou $0,09 \text{ pi}^3/\text{m}^2$, soit le niveau le plus élevé.

b. Essais d'infiltration d'eau: Effectuer les essais conformément à la norme E 1105 de l'ASTM. Aucune fuite d'eau non contrôlée n'est permise lorsque soumis à des essais à une pression statique de deux tiers de la pression d'infiltration d'eau spécifiée mais non inférieure à 8 lb/pi^2 (383 Pa).

B. Services sur le chantier par le fabricant: À la demande écrite du propriétaire, un représentant du service à la clientèle du fabricant assurera des visites périodiques sur le chantier.

3.4 Protection et nettoyage

A. Protection: Protéger les finis des surfaces apparentes des produits installés contre les dommages pouvant survenir au cours de la construction. Protéger le système de murs rideaux en aluminium contre les dommages dus au meulage et au polissage des composés comme le plâtre, la chaux, l'acide et le ciment ou tout autre élément susceptible d'abîmer le fini.

B. Nettoyage: Réparer ou remplacer les produits installés qui sont endommagés. Nettoyer les produits installés conformément aux instructions du fabricant avant leur acceptation par le propriétaire. Enlever les débris de construction du chantier et se débarrasser des débris conformément aux lois applicables.

3.5 Indication de deux endroit au plan

test d'exploration en chantier début de mandat d'exécution. Démontage d'une section de fenêtre existante pour valider l'état et le système de jambage de montage(voir plan du directeur)

FIN DE SECTION



TP1 Amount Payable – General

1.1 Subject to any other provisions of the contract, Her Majesty shall pay the Contractor, at the times and in the manner hereinafter set out, the amount by which

1.1.1 the aggregate of the amounts described in TP2 exceeds

1.1.2 the aggregate of the amounts described in TP3

and the Contractor shall accept that amount as payment in full satisfaction for everything furnished and done by him in respect of the work to which the payment relates.

TP2 Amounts Payable to the Contractor

2.1 The amounts referred to in TP1.1.1 are the aggregate of

2.1.1 the amounts referred to in the Articles of Agreement, and

2.1.2 the amounts, if any, that are payable to the Contractor pursuant to the General Conditions.

TP3 Amounts Payable to Her Majesty

3.1 The amounts referred to in TP1.1.2 are the aggregate of the amounts, in any, that the Contractor is liable to pay Her Majesty pursuant to the contract.

3.2 When making any payments to the Contractor, the failure of Her Majesty to deduct an amount referred to in TP3.1 from an amount referred to in TP2 shall not be 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.

TP4 Time of Payment

4.1 In these Terms of Payment

4.1.1 The “payment period” means a period of 30 consecutive days or such other longer period as is agreed between the Contractor and the Departmental Representative.

4.1.2 An amount is “due and payable” when it is due and payable by Her Majesty to the Contractor according to TP4.4, TP4.7 or TP4.10.

4.1.3 An amount is overdue when it is unpaid on the first day following the day upon which it is due and payable.

4.1.4 The “date of payment” means the date of the negotiable instrument of an amount due and payable by the Receiver General for Canada and given for payment.

4.1.5 The “Bank Rate” means the discount rate of interest set by the Bank of Canada in effect at the opening of business on the date of payment.



- 4.2 The Contractor shall, on the expiration of a payment period, deliver to the Departmental Representative in respect of that payment period a written progress claim 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.
- 4.3 The Departmental Representative shall, not later than ten days after receipt by him of a progress claim referred to in TP4.2,
- 4.3.1 inspect the part of the work and the material described in the progress claim; and
- 4.3.2 issue a progress report, a copy of which the Departmental Representative will give 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 the Departmental Representative,
- 4.3.2.1 is in accordance with the contract, and
- 4.3.2.2 was not included in any other progress report relating to the contract.
- 4.4 Subject to TP1 and TP4.5 Her Majesty shall, not later than 30 days after receipt by the Departmental Representative of a progress claim referred to in TP4.2, pay the Contractor
- 4.4.1 an amount that is equal to 95% of the value that is indicated in the progress report referred to in TP4.3.2 if a labour and material payment bond has been furnished by the Contractor, or
- 4.4.2 an amount that is equal to 90% of the value that is indicated in the progress report referred to in TP4.3.2 if a labour and material payment bond has not been furnished by the Contractor.
- 4.5 It is a condition precedent to Her Majesty's obligation under TP4.4 that the Contractor has made and delivered to the Departmental Representative,
- 4.5.1 a statutory declaration described in TP4.6 in respect of a progress claim referred to in TP4.2,
- 4.5.2 in the case of the Contractor's first progress claim, a construction schedule in accordance with the relevant sections of the Specifications, and
- 4.5.3 if the requirement for a schedule is specified, an update of the said schedule at the times identified in the relevant sections of the Specifications.
- 4.6 A statutory declaration referred to in TP4.5 shall contain a deposition by the Contractor that
- 4.6.1 up to the date of the Contractor's progress claim, the Contractor has complied with all his lawful obligations with respect to the Labour Conditions; and
- 4.6.2 up to the date of the Contractor's immediately preceding progress claim, all lawful obligations of the Contractor to subcontractors and suppliers of material in respect of the



work under the contract have been fully discharged.

- 4.7 Subject to TP1 and TP4.8, Her Majesty shall, not later than 30 days after the date of issue of an Interim Certificate of Completion referred to in GC44.2, pay the Contractor the amount referred to in TP1 less the aggregate of
- 4.7.1 the sum of all payments that were made pursuant to TP4.4;
 - 4.7.2 an amount that is equal to the Departmental Representative's estimate of the cost to Her Majesty or rectifying defects described in the Interim Certificate of Completion; and
 - 4.7.3 an amount that is equal to the Departmental Representative's estimate of the cost to Her Majesty of completing the parts of the work described in the Interim Certificate of Completion other than the defects referred to in TP4.7.2.
- 4.8 It is a condition precedent to Her Majesty's obligation under TP4.7 that the Contractor has made and delivered to the Departmental Representative,
- 4.8.1 a statutory declaration described in TP4.9 in respect of an Interim Certificate of Completion referred to in GC44.2, and
 - 4.8.2 if so specified in the relevant sections of the Specifications, and update of the construction schedule referred to in TP4.5.2 and the updated schedule shall, in addition to the specified requirements, clearly show a detailed timetable that is acceptable to the Departmental Representative for the completion of any unfinished work and the correction of all defects.
- 4.9 A statutory declaration referred to in TP4.8 shall contain a deposition by the contractor that up to the date of the Interim Certificate of Completion the Contractor has
- 4.9.1 complied with all of the Contractor's lawful obligations with respect to the Labour Conditions;
 - 4.9.2 discharged all of the Contractor's lawful obligations to the subcontractors and suppliers of material in respect of the work under the contract; and
 - 4.9.3 discharged the Contractor's lawful obligations referred to in GC14.6.
- 4.10 Subject to TP1 and TP4.11, Her Majesty shall, not later than 60 days after the date of issue of a Final Certificate of Completion referred to in GC44.1, pay the Contractor the amount referred to in TP1 less the aggregate of
- 4.10.1 the sum of all payments that were made pursuant to TP4.4; and
 - 4.10.2 the sum of all payments that were made pursuant to TP4.7.
- 4.11 It is a condition precedent to Her Majesty's obligation under TP4.10 that the Contractor has made and delivered a statutory declaration described in TP4.12 to the Departmental Representative.



- 4.12 A statutory declaration referred to in TP4.11 shall, in addition to the depositions described in TP4.9, contain a deposition 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.

TP5 Progress Report and Payment Thereunder Not Binding on Her Majesty

- 5.1 Neither a progress report referred to in TP4.3 nor any payment made by Her Majesty pursuant to these Terms of Payment shall be construed as an admission by Her Majesty that the work, material or any part thereof is complete, is satisfactory or is in accordance with the contract.

TP6 Delay in Making Payment

- 6.1 Notwithstanding GC7 any delay by Her Majesty in making any payment when it is due pursuant to these Terms of Payment shall not be a breach of the contract by Her Majesty.

- 6.2 Her Majesty shall pay, without demand from the Contractor, simple interest at the Bank Rate plus 1 -1/4 per centum on any amount which is overdue pursuant to TP4.1.3, and the interest shall apply from and include the day such amount became overdue until the day prior to the date of payment except that

- 6.2.1 interest shall not be payable or paid unless the amount referred to in TP6.2 has been overdue for more than 15 days following

6.2.1.1 the date the said amount became due and payable, or

6.2.1.2 the receipt by the Departmental Representative of the Statutory Declaration referred to in TP4.5, TP4.8 or TP4.11,

whichever is the later, and

- 6.6.2 interest shall not be payable or paid on overdue advance payments if any.

TP7 Right of Set-off

- 7.1 Without limiting any right of set-off or deduction given or implied by law or elsewhere in the contract, Her Majesty may set off any amount payable to Her Majesty by the Contractor under this contract or under any current contract against any amount payable to the Contractor under this contract.
- 7.2 For the purposes of TP7.1, "current contract" means a contract between Her Majesty and the Contractor
- 7.2.1 under which the Contractor has an undischarged obligation to perform or supply work, labour or material, or
- 7.2.2 in respect of which Her Majesty has, since the date of which the Articles of Agreement were made, exercised any right to take the work that is the subject of the contract out of the Contractor's hands.



TP8 Payment in Event of Termination

- 8.1 If the contract is terminated pursuant to GC41, Her Majesty shall pay the Contractor any amount that is lawfully due and payable to the Contractor as soon as is practicable under the circumstances.

TP9 Interest on Settled Claims

- 9.1 Her Majesty shall pay to the Contractor simple interest on the amount of a settled claim at an average Bank Rate plus 1 ¼ per centum from the date the settled claim was outstanding until the day prior to the date of payment.
- 9.2 For the purposes of TP9.1,
- 9.2.1 a claim is deemed to have been settled when an agreement in writing is signed by the Departmental Representative and the Contractor setting out the amount of the claim to be paid by Her Majesty and the items or work for which the said amount is to be paid.
- 9.2.2 an "average Bank Rate" means the discount rate of interest set by the Bank of Canada in effect at the end of each calendar month averaged over the period the settled claim was outstanding.
- 9.2.3 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.
- 9.3 For the purposes of TP9 a claim means a disputed amount subject to negotiation between Her Majesty and the Contractor under the contract.



Section	Page	Heading
GC1	1	Interpretation
GC2	2	Successors and Assigns
GC3	2	Assignment of Contract
GC4	2	Subcontracting by Contractor
GC5	2	Amendments
GC6	3	No Implied Obligations
GC7	3	Time of Essence
GC8	3	Indemnification by Contractor
GC9	3	Indemnification by Her Majesty
GC10	3	Members of House of Commons Not to Benefit
GC11	4	Notices
GC12	4	Material, Plant and Real Property Supplied by Her Majesty
GC13	5	Material, Plant and Real Property Become Property of Her Majesty
GC14	5	Permits and Taxes Payable
GC15	6	Performance of Work under Direction of Departmental Representative
GC16	6	Cooperation with Other Contractors
GC17	7	Examination of Work
GC18	7	Clearing of Site
GC19	7	Contractor's Superintendent
GC20	8	National Security
GC21	8	Unsuitable Workers
GC22	8	Increased or Decreased Costs
GC23	9	Canadian Labour and Material
GC24	9	Protection of Work and Documents
GC25	10	Public Ceremonies and Signs
GC26	10	Precautions against Damage, Infringement of Rights, Fire, and Other Hazards
GC27	11	Insurance
GC28	11	Insurance Proceeds
GC29	12	Contract Security
GC30	12	Changes in the Work
GC31	13	Interpretation of Contract by Departmental Representative
GC32	14	Warranty and Rectification of Defects in Work
GC33	14	Non-Compliance by Contractor
GC34	14	Protesting Departmental Representative's Decisions
GC35	15	Changes in Soil Conditions and Neglect or Delay by Her Majesty
GC36	16	Extension of Time
GC37	16	Assessments and Damages for Late Completion
GC38	17	Taking the Work Out of the Contractor's Hands
GC39	18	Effect of Taking the Work Out of the Contractor's Hands
GC40	18	Suspension of Work by Minister
GC41	19	Termination of Contract
GC42	19	Claims Against and Obligations of the Contractor or Subcontractor
GC43	21	Security Deposit – Forfeiture or Return
GC44	22	Departmental Representative's Certificates
GC45	23	Return of Security Deposit
GC46	24	Clarification of Terms in GC47 to GC50
GC47	24	Additions or Amendments to Unit Price Table
GC48	24	Determination of Cost – Unit Price Table
GC49	25	Determination of Cost – Negotiation
GC50	25	Determination of Cost – Failing Negotiation
GC51	26	Records to be kept by Contractor
GC52	27	Conflict of Interest
GC53	27	Contractor Status



GC1 Interpretation

1.1 In the contract

- 1.1.1 where reference is made to a part of the contract by means of numbers preceded by letters, the reference shall be construed to be 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;
- 1.1.2 "contract" means the contract document referred to in the Articles of Agreement;
- 1.1.3 "contract security" means any security given by the Contractor to Her Majesty in accordance with the contract;
- 1.1.4 "Departmental Representative" means the officer or employee of Her Majesty who is designated pursuant to the Articles of Agreement and includes a person specially authorized by him to perform, on his behalf, any of his functions under the contract and is so designated in writing to the Contractor;
- 1.1.5 "material" includes all commodities, articles and things required to be furnished by or for the Contractor under the contract for incorporation into the work;
- 1.1.6 "Minister" includes a person acting for, or if the office is vacant, in place of the Minister and his successors in the office, and his or their lawful deputy and any of his or their representatives appointed for the purposes of the contract;
- 1.1.7 "person" includes, unless the context otherwise requires, a partnership, proprietorship, firm, joint venture, consortium and a corporation;
- 1.1.8 "plant" includes all animals, tools, implements, machinery, vehicles, buildings, structures, equipment and commodities, articles and things other than material, that are necessary for the due performance of the contract;
- 1.1.9 "subcontractor" means a person to whom the Contractor has, subject to GC4, subcontracted the whole or any part of the work;
- 1.1.10 "superintendent" means the employee of the Contractor who is designated by the Contractor to act pursuant to GC19;
- 1.1.11 "work" includes, 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.

1.2 The headings in the contract documents, other than in the Plans and Specifications, form no part of the contract but are inserted for convenience of reference only.

1.3 In interpreting the contract, in the event of discrepancies or conflicts between anything in the Plans and Specifications and the General Conditions, the General Conditions govern.



- 1.4 In interpreting the Plans and Specifications, in the event of discrepancies or conflicts between
- 1.4.1 the Plans and Specifications, the Specifications govern;
 - 1.4.2 the Plans, the Plans drawn with the largest scale govern; and
 - 1.4.3 figured dimensions and scaled dimensions, the figured dimensions govern.

GC2 Successors and Assigns

- 2.1 The contract shall inure to the benefit of and be binding upon the parties hereto and their lawful heirs, executors, administrators, successors and assigns.

GC3 Assignment of Contract

- 3.1 The contract may not be assigned by the Contractor, either in whole or in part, without the written consent of the Minister.

GC4 Subcontracting by Contractor

- 4.1 Subject to this General Condition, the Contractor may subcontract any part of the work.
- 4.2 The Contractor shall notify the Departmental Representative in writing of his intention to subcontract.
- 4.3 A notification referred to in GC4.2 shall identify the part of the work, and the subcontractor with whom it is intended to subcontract.
- 4.4 The Departmental Representative may object to the intended subcontracting by notifying the Contractor in writing within six days of receipt by the Departmental Representative of a notification referred to in GC4.2.
- 4.5 If the Departmental Representative objects to a subcontracting pursuant to GC4.4, the Contractor shall not enter into the intended subcontract.
- 4.6 The contractor shall not, without the written consent of the Departmental Representative, change a subcontractor who has been engaged by him in accordance with this General Condition.
- 4.7 Every subcontract entered into by the Contractor shall adopt all of the terms and conditions of this contract that are of general application.
- 4.8 Neither a subcontracting nor the Departmental Representative's consent to a subcontracting by the Contractor shall be construed to relieve the Contractor from any obligation under the contract or to impose any liability upon Her Majesty.

GC5 Amendments



- 5.1 No amendment or change in any of the provisions of the contract shall have any force or effect until it is reduced to writing.

GC6 No Implied Obligations

- 6.1 No implied terms or obligations of any kind by or on behalf of Her Majesty shall arise from anything in the contract and the express covenants and agreements therein contained and made by Her Majesty are the only covenants and agreements upon which any rights against Her Majesty are to be founded.
- 6.2 The contract supersedes all communications, negotiations and agreements, either written or oral, relating to the work that were made prior to the date of the contract.

GC7 Time of Essence

- 7.1 Time is of the essence of the contract.

GC8 Indemnification by Contractor

- 8.1 The Contractor shall indemnify and save Her Majesty harmless from and against all claims, demand, losses, costs, damages, actions, suits, or proceedings by whomever made, brought or prosecuted and in any manner based upon, arising out of, related to, occasioned by or attributable to the activities of the Contractor, his servants, agents, subcontractors and sub-subcontractors in performing the work including an infringement or an alleged infringement of a patent of invention or any other kind of intellectual property.
- 8.2 For the purpose of GC8.1, "activities" includes any act improperly carried out, any omission to carry out an act and any delay in carrying out an act.

GC9 Indemnification by Her Majesty

- 9.1 Her Majesty shall, subject to the Crown Liability Act, the Patent Act, and any other law that affects Her Majesty's rights, powers, privileges or obligations, indemnify and save the Contractor harmless from and against all claims, demands, losses, costs, damage, actions, suits or proceedings arising out of his activities under the contract that are directly attributable to
- 9.1.1 lack of or a defect in Her Majesty's title to the work site whether real or alleged; or
- 9.1.2 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 Her Majesty to the Contractor.

GC10 Members of House of Commons Not to Benefit



- 10.1 As required by the Parliament of Canada Act, it is an express condition of the contract that no member of the House of Commons shall be admitted to any share of part of the contract or to any benefit arising therefrom.

GC11 Notices

- 11.1 Any notice, consent, order, decision, direction or other communication, other than a notice referred to in GC11.4, that may be given to the Contractor pursuant to the contract may be given in any manner.
- 11.2 Any notice, consent, order, decision, direction or other communication required to be given in writing, to any party pursuant to the contract shall, subject to GC11.4, be deemed to have been effectively given
- 11.2.1 to the Contractor, if delivered personally to the Contractor or the Contractor's superintendent, or forwarded by mail, telex or facsimile to the Contractor at the address set out in A4.1, or
- 11.2.2 to Her Majesty, if delivered personally to the Departmental Representative, or forwarded by mail, telex or facsimile to the Departmental Representative at the address set out in A1.2.1.
- 11.3 Any such notice, consent, order, decision, direction or other communication given in accordance with GC11.2 shall be deemed to have been received by either party
- 11.3.1 if delivered personally, on the day that it was delivered,
- 11.3.2 if forwarded by mail, on the earlier of the day it was received and the sixth day after it was mailed, and
- 11.3.3 if forwarded by telex or facsimile, 24 hours after it was transmitted.
- 11.4 A notice given under GC38.1.1, GC40 and GC41, if delivered personally, shall be delivered to the Contractor if the Contractor is doing business as sole proprietor or, if the Contractor is a partnership or corporation, to an officer thereof.

GC12 Material, Plant and Real Property Supplied by Her Majesty

- 12.1 Subject to GC12.2, the Contractor is liable to Her Majesty 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 Her Majesty for use in connection with the contract, whether or not that loss or damage is attributable to causes beyond the Contractor's control.
- 12.2 The Contractor is not liable to Her Majesty for any loss or damage to material, plant or real property referred to in GC12.1 if that loss or damage results from and is directly attributable to reasonable wear and tear.
- 12.3 The Contractor shall not use any material, plant or real property referred to in GC12.1 except for



the purpose of performing this contract.

- 12.4 When the Contractor fails to make good any loss or damage for which he is liable under GC12.1 within a reasonable time after being required to do so by the Departmental Representative, the Departmental Representative may cause the loss or damage to be made good at the Contractor's expense, and the Contractor shall thereupon be liable to Her Majesty for the cost thereof and shall, on demand, pay to Her Majesty an amount equal to that cost.
- 12.5 The Contractor shall keep such records of all material, plant and real property referred to in GC12.1 as the Departmental Representative from time to time requires and shall satisfy the Departmental Representative, when requested, that such material, plant and real property are at the place and in the condition which they ought to be.

GC13 Material, Plant and Real Property Become Property of Her Majesty

- 13.1 Subject to GC14.7 all material and plant and the interest of the Contractor in all real property, licenses, powers and privileges purchased, used or consumed by the Contractor for the contract shall, after the time of their purchase, use or consumption be the property of Her Majesty for the purposes of the work and they shall continue to be the property of Her Majesty.
- 13.1.1 in the case of material, until the Departmental Representative indicates that he is satisfied that it will not be required for the work, and
- 13.1.2 in the case of plant, real property, licenses, powers and privileges, until the Departmental Representative indicates that he is satisfied that the interest vested in Her Majesty therein is no longer required for the purposes of the work.
- 13.2 Material or plant that is the property of Her Majesty by virtue of GC13.1 shall not be taken away from the work site or used or disposed of except for the purposes of the work without the written consent of the Departmental Representative.
- 13.3 Her Majesty is not liable for loss of or damage from any cause to the material or plant referred to in GC13.1 and the Contractor is liable for such loss or damage notwithstanding that the material or plant is the property of Her Majesty.

GC14 Permits and Taxes Payable

- 14.1 The Contractor shall, within 30 days after the date of the contract, 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 a person other than Her Majesty.
- 14.2 Within 10 days of making a tender pursuant to GC14.1, the Contractor shall notify the Departmental Representative of his action and of the amount tendered and whether or not the municipal authority has accepted that amount.
- 14.3 If the municipal authority does not accept the amount tendered pursuant to GC14.1 the Contractor shall pay that amount to Her Majesty within 6 days after the time stipulated in GC14.2.



- 14.4 For the purposes of GC14.1 to GC14.3 "municipal authority" means any authority that would have jurisdiction respecting permission to perform the work if the owner were not Her Majesty.
- 14.5 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.
- 14.6 In accordance with the Statutory Declaration referred to in TP4.9, a Contractor who has neither residence nor place of business in the province in which work under the contract is being performed shall provide Her Majesty with proof of registration with the provincial sales tax authorities in the said province.
- 14.7 For the purpose of the payment of any applicable tax or the furnishing of security for the payment of any applicable tax arising from or related to the performance of the work under the contract, the Contractor shall, notwithstanding the fact that all material, plant and interest of the Contractor in all real property, licenses, powers and privileges, have become the property of Her Majesty after the time of purchase, be liable, as a user or consumer, for the payment or for the furnishing of security for the payment of any applicable tax payable, at the time of the use or consumption of that material, plant or interest of the Contractor in accordance with the relevant legislation.

GC15 Performance of Work under Direction of Departmental Representative

- 15.1 The Contractor shall
- 15.1.1 permit the Departmental Representative to have access to the work and its site at all times during the performance of the contract;
 - 15.1.2 furnish the Departmental Representative with such information respecting the performance of the contract as he may require; and
 - 15.1.3 give the Departmental Representative every possible assistance to enable the Departmental Representative to carry out his duty to see that the work is performed in accordance with the contract and to carry out any other duties and exercise any powers specially imposed or conferred on the Departmental Representative under the contract.

CG16 Cooperation with Other Contractors

- 16.1 Where, in the opinion of the Departmental Representative, it is necessary that other contractors or workers with or without plant and material, be sent onto the work or its site, the Contractor shall, to the satisfaction of the Departmental Representative, allow them access and cooperate with them in the carrying out of their duties and obligation.
- 16.2 If
- 16.2.1 the sending onto the work or its site of other contractors or workers pursuant to GC16.1 could not have been reasonably foreseen or anticipated by the Contractor when entering into the contract, and



16.2.2 the Contractor incurs, in the opinion of the Departmental Representative, extra expense in complying with GC16.1, and

16.2.3 The Contractor has given the Departmental Representative written notice of his claim for the extra expense referred to in GC16.2.2 within 30 days of the date that the other contractors or workers were sent onto the work or its site,

Her Majesty shall pay the Contractor the cost, calculated in accordance with GC48 to GC50, of the extra labour, plant and material that was necessarily incurred.

GC17 Examination of Work

17.1 If, at any time after the commencement of the work but prior to the expiry of the warranty or guarantee period, the Departmental Representative has reason to believe that the work or any part thereof has not been performed in accordance with the contract, the Departmental Representative may have that work examined by an expert of his choice.

17.2 If, as a result of an examination of the work referred to in GC17.1, it is established that the work was not performed in accordance with the contract, then, in addition to and without limiting or otherwise affecting any of Her Majesty's rights and remedies under the contract either at law or in equity, the Contractor shall pay Her Majesty, on demand, all reasonable costs and expenses that were incurred by Her Majesty in having that examination performed.

GC18 Clearing of Site

18.1 The Contractor shall maintain the work and its site in a tidy condition and free from the accumulation of waste material and debris, in accordance with any directions of the Departmental Representative.

18.2 Before the issue of an interim certificate referred to in GC44.2, the Contractor shall remove all the plant and material not required for the performance of the remaining work, and all waste material and other debris, and shall cause the work and its site to be clean and suitable for occupancy by Her Majesty's servants, unless otherwise stipulated in the contract.

18.3 Before the issue of a final certificate referred to in GC44.1, the Contractor, shall remove from the work and its site all of the surplus plant and material and any waste material and other debris.

18.4 The Contractor's obligations described in GC18.1 to GC18.3 do not extend to waste material and other debris caused by Her Majesty's servants or contractors and workers referred to in GC16.1.

GC19 Contractor's Superintendent

19.1 The Contractor shall, forthwith upon the award of the contract, designate a superintendent.

19.2 The Contractor shall forthwith notify the Departmental Representative of the name, address and telephone number of a superintendent designate pursuant to GC19.1.



- 19.3 A superintendent designated pursuant to GC19.1 shall be in full charge of the operations of the Contractor in the performance of the work and is authorized to accept any notice, consent, order, direction, decision or other communication on behalf of the Contractor that may be given to the superintendent under the contract.
- 19.4 The Contractor shall, until the work has been completed, keep a competent superintendent at the work site during working hours.
- 19.5 The Contractor shall, upon the request of the Departmental Representative, remove any superintendent who, in the opinion of the Departmental Representative, is incompetent or has been conducting himself improperly and shall forthwith designate another superintendent who is acceptable to the Departmental Representative.
- 19.6 Subject to GC19.5, the Contractor shall not substitute a superintendent without the written consent of the Departmental Representative.
- 19.7 A breach by the Contractor of GC19.6 entitles the Departmental Representative to refuse to issue any certificate referred to in GC44 until the superintendent has returned to the work site or another superintendent who is acceptable to the Departmental Representative has been substituted.

GC20 National Security

- 20.1 If the Minister is of the opinion that the work is of a class or kind that involves the national security, he may order the Contractor
- 20.1.1 to provide him with any information concerning persons employed or to be employed by him for purposes of the contract; and
 - 20.1.2 to remove any person from the work and its site if, in the opinion of the Minister, that person may be a risk to the national security.
- 20.2 The Contractor shall, in all contracts with persons who are to be employed in the performance of the contract, make provision for his performance of any obligation that may be imposed upon him under GC19 to GC21.
- 20.3 The Contractor shall comply with an order of the Minister under GC20.1

GC21 Unsuitable Workers

- 21.1 The Contractor shall, upon the request of the Departmental Representative, remove any person employed by him for purposes of the contract who, in the opinion of the Departmental Representative, is incompetent or has conducted himself improperly, and the Contractor shall not permit a person who has been removed to return to the work site.

GC22 Increased or Decreased Costs



- 22.1 The amount set out in the Articles of Agreement shall not be increased or 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 or material or any wage adjustment arising pursuant to the Labour Conditions.
- 22.2 Notwithstanding GC22.1 and GC35, an amount set out in the Articles of Agreement shall be adjusted in the manner provided in GC22.3, if any change in a tax imposed under the Excise Act, the Excise Tax Act, the Old Age Security Act, the Customs Act, the Customs Tariff or any provincial sales tax legislation imposing a retail sales tax on the purchase of tangible personal property incorporated into Real Property
- 22.2.1 occurs after the date of the submission by the Contractor of his tender for the contract,
- 22.2.2 applies to material, and
- 22.2.3 affects the cost to the Contractor of that material.
- 22.3 If a change referred to in GC22.2 occurs, the appropriate amount set out in the Articles of Agreement shall be increased or decreased by an amount equal to the amount that is established by an examination of the relevant records of the Contractor referred to in GC51 to be the increase or decrease in the cost incurred that is directly attributable to that change.
- 22.4 For the purpose of GC22.2, where a tax is changed after the date of submission of the tender but public notice of the change has been given by the Minister of Finance before that date, the change shall be deemed to have occurred before the date of submission of the tender.

GC23 Canadian Labour and Material

- 23.1 The Contractor shall use Canadian labour and material in the performance of the work to the full extent to which they are procurable, consistent with proper economy and expeditious carrying out of the work.
- 23.2 Subject to GC23.1, the Contractor shall, in the performance of the work, employ labour from the locality where the work is being performed to the extent to which it is available, and shall use the offices of the Canada Employment Centres for the recruitment of workers wherever practicable.
- 23.3 Subject to GC23.1 and GC23.2, the Contractor shall, in the performance of the work, employ a reasonable proportion of persons who have been on active service with the armed forces of Canada and have been honourably discharged therefrom.

GC24 Protection of Work and Documents

- 24.1 The Contractor shall guard or otherwise protect the work and its site, and protect the contract, specifications, plans, drawings, information, material, plant and real property, whether or not they are supplied by Her Majesty to the Contractor, against loss or damage from any cause, and he shall not use, issue, disclose or dispose of them without the written consent of the Minister, except as may be essential for the performance of the work.



- 24.2 If any document or information given or disclosed to the Contractor is assigned a security rating by the person who gave or disclosed it, the Contractor shall take all measures directed by the Departmental Representative to be taken to ensure the maintenance of the degree of security that is ascribed to that rating.
- 24.3 The Contractor shall provide all facilities necessary for the purpose of maintaining security, and shall assist any person authorized by the Minister to inspect or to take security measures in respect of the work and its site.
- 24.4 The Departmental Representative may direct the Contractor to do such things and to perform such additional work as the Departmental Representative considers reasonable and necessary to ensure compliance with or to remedy a breach of GC24.1 to GC24.3.

GC25 Public Ceremonies and Signs

- 25.1 The Contractor shall not permit any public ceremony in connection with the work without the prior consent of the Minister.
- 25.2 The Contractor shall not erect or permit the erection of any sign or advertising on the work or its site without the prior consent of the Departmental Representative.

GC26 Precautions against Damage, Infringement of Rights, Fire, and Other Hazards

- 26.1 The Contractor shall, at his own expense, do whatever is necessary to ensure that
- 26.1.1 no person, property, right, easement or privilege is injured, damaged or infringed by reasons of the Contractor's activities in performing the contract;
 - 26.1.2 pedestrian and other traffic on any public or private road or waterway is not unduly impeded, interrupted or endangered by the performance or existence of the work or plant;
 - 26.1.3 fire hazards in or about the work or its site are eliminated and, subject to any direction that may be given by the Departmental Representative, any fire is promptly extinguished;
 - 26.1.4 the health and safety of all persons employed in the performance of the work is not endangered by the method or means of its performance;
 - 26.1.5 adequate medical services are available to all persons employed on the work or its site at all times during the performance of the work;
 - 26.1.6 adequate sanitation measures are taken in respect of the work and its site; and
 - 26.1.7 all stakes, buoys and marks placed on the work or its site by or under the authority of the Departmental Representative are protected and are not removed, defaced, altered or destroyed.
- 26.2 The Departmental Representative may direct the Contractor to do such things and to perform such additional work as the Departmental Representative considers reasonable and necessary to ensure



compliance with or to remedy a breach of GC26.1.

- 26.3 The Contractor shall, at his own expense, comply with a direction of the Departmental Representative made under GC26.2.

GC27 Insurance

- 27.1 The Contractor shall, at his own expense, obtain and maintain insurance contracts in respect of the work and shall provide evidence thereof to the Departmental Representative in accordance with the requirements of the Insurance Conditions "E".
- 27.2 The insurance contracts referred to in GC27.1 shall
- 27.2.1 be in a form, of the nature, in the amounts, for the periods and containing the terms and conditions specified in Insurance Conditions "E", and
 - 27.2.2 provide for the payment of claims under such insurance contracts in accordance with GC28.

GC28 Insurance Proceeds

- 28.1 In the case of a claim payable under a Builders Risk/Installation (All Risks) insurance contract maintained by the Contractor pursuant to GC27, the proceeds of the claim shall be paid directly to Her Majesty, and
- 28.1.1 the monies so paid shall be held by Her Majesty for the purposes of the contract, or
 - 28.1.2 if Her Majesty elects, shall be retained by Her Majesty, in which event they vest in Her Majesty absolutely.
- 28.2 In the case of a claim payable under a General Liability insurance contract maintained by the Contractor pursuant to GC27, the proceeds of the claim shall be paid by the insurer directly to the claimant.
- 28.3 If an election is made pursuant to GC28.1, the Minister may cause an audit to be made of the accounts of the Contractor and of Her Majesty in respect of the part of the work that was lost, damaged or destroyed for the purpose of establishing the difference, if any, between
- 28.3.1 the aggregate of the amount of the loss or damage suffered or sustained by Her Majesty, including any cost 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 Her Majesty under the contract, minus any monies retained pursuant to GC28.12, and
 - 28.3.2 the aggregate of the amounts payable by Her Majesty to the Contractor pursuant to the contract up to the date of the loss or damage.
- 28.4 A difference that is established pursuant to GC28.3 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.

- 28.5 When payment of a deficiency has been made pursuant to GC28.4, all rights and obligations of Her Majesty 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 GC28.3, be deemed to have been expended and discharged.
- 28.6 If an election is not made pursuant to GC28.1.2 the Contractor shall, subject to GC28.7, clear and clean the work and its site and restore and replace the part of the work that was lost, damaged or destroyed at his own expense as if that part of the work had not yet been performed.
- 28.7 When the Contractor clears and cleans the work and its site and restores and replaces the work referred to in GC 28.6, Her Majesty shall pay him out of the monies referred to in GC28.1 so far as they will thereunto extend.
- 28.8 Subject to GC28.7, payment by Her Majesty pursuant to GC28.7 shall be made in accordance with the contract but the amount of each payment shall be 100% of the amount claimed notwithstanding TP4.4.1 and TP4.4.2.

GC29 Contract Security

- 29.1 The Contractor shall obtain and deliver contract security to the Departmental Representative in accordance with the provisions of the Contract Security Conditions.
- 29.2 If the whole or a part of the contract security referred to in GC29.1 is in the form of a security deposit, it shall be held and disposed of in accordance with GC43 and GC45.
- 29.3 If a part of the contract security referred to in GC29.1 is in the form of a labour and material payment bond, the Contractor shall post a copy of that bond on the work site.

GC30 Changes in the Work

- 30.1 Subject to GC5, the Departmental Representative may, at any time before he issues his Final Certificate of Completion,
- 30.1.1 order work or material in addition to that provided for in the Plans and Specifications;
and
- 30.1.2 delete or change the dimensions, character, quantity, quality, description, location or position of the whole or any part of the work or material provided for in the Plans and Specifications or in any order made pursuant to GC30.1.1,
- if that additional work or material, deletion, or change is, in his opinion, consistent with the general intent of the original contract.
- 30.2 The Contractor shall perform the work in accordance with such orders, deletions and changes that are made by the Departmental Representative pursuant to GC30.1 from time to time as if they had appeared in and been part of the Plans and Specifications.



- 30.3 The Departmental Representative shall determine whether or not anything done or omitted by the Contractor pursuant to an order, deletion or change referred to in GC30.1 increased or decreased the cost of the work to the Contractor.
- 30.4 If the Departmental Representative determines pursuant to GC30.3 that the cost of the work to the Contractor has been increased, Her Majesty shall pay the Contractor the increased cost that the Contractor necessarily incurred for the additional work calculated in accordance with GC49 or GC50.
- 30.5 If the Departmental Representative determines pursuant to GC30.3 that the cost of the work to the Contractor has been decreased, Her Majesty shall reduce the amount payable to the Contractor under the contract by an amount equal to the decrease in the cost caused by the deletion or change referred to in GC30.1.2 and calculated in accordance with GC49.
- 30.6 GC30.3 to GC30.5 are applicable only to a contract or a portion of a contract for which a Fixed Price Arrangement is stipulated in the contract.
- 30.7 An order, deletion or change referred to in GC30.1 shall be in writing, signed by the Departmental Representative and given to the Contractor in accordance with GC11.

GC31 Interpretation of Contract by Departmental Representative

- 31.1 If, at any time before the Departmental Representative has issued a Final Certificate of Completion referred to in GC44.1, 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
- 31.1.1 the meaning of anything in the Plans and Specification,
 - 31.1.2 the meaning to be given to the Plans and Specifications in case of any error therein, omission therefrom, or obscurity or discrepancy in their working or intention,
 - 31.1.3 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,
 - 31.1.4 whether or not the labour, plant or material provided by the Contractor for performing the work and carrying out the contract are adequate to ensure that the work will be performed in accordance with the contract and that the contract will be carried out in accordance with its terms,
 - 31.1.5 what quantity of any kind of work has been completed by the Contractor, or
 - 31.1.6 the timing and scheduling of the various phases of the performance of the work,
- the question shall be decided by the Departmental Representative whose decision shall be final and conclusive in respect of the work.
- 31.2 The Contractor shall perform the work in accordance with any decisions of the Departmental



Representative that are made under GC31.1 and in accordance with any consequential directions given by the Departmental Representative.

GC32 Warranty and Rectification of Defects in Work

- 32.1 Without restricting any warranty or guarantee implied or imposed by law or contained in the contract documents, the Contractor shall, at his own expense,
- 32.1.1 rectify and make good any defect or fault that appears in the work or comes to the attention of the Minister with respect to those parts of the work accepted in connection with the Interim Certificate of Completion referred to GC44.2 within 12 months from the date of the Interim Certificate of Completion;
- 32.1.2 rectify and make good any defect or fault that appears in or comes to the attention of the Minister in connection with those parts of the work described in the Interim Certificate of Completion referred to in GC44.2 within 12 months from the date of the Final Certificate of Completion referred to in GC44.1.
- 32.2 The Departmental Representative may direct the Contractor to rectify and make good any defect or fault referred to in GC32.1 or covered by any other expressed or implied warranty or guarantee.
- 32.3 A direction referred to in GC32.2 shall be in writing, may include a stipulation in respect of the time within which a defect or fault is required to be rectified and made good by the Contractor, and shall be given to the Contractor in accordance with GC11.
- 32.4 The Contractor shall rectify and make good any defect or fault described in a direction given pursuant to GC32.2 within the time stipulated therein.

GC33 Non-Compliance by Contractor

- 33.1 If the Contractor fails to comply with any decision or direction given by the Departmental Representative pursuant to GC18, GC24, GC26, GC31 or GC32, the Departmental Representative may employ such methods as he deems advisable to do that which the Contractor failed to do.
- 33.2 The Contractor shall, on demand, pay Her Majesty an amount that is equal to the aggregate of all cost, expenses and damage incurred or sustained by Her Majesty by reason of the Contractor's failure to comply with any decision or direction referred to in GC33.1, including the cost of any methods employed by the Departmental Representative pursuant to GC33.1.

GC34 Protest of Departmental Representative's Decisions

- 34.1 The Contractor may, within ten days after the communication to him of any decision or direction referred to in GC30.3 or GC33.1, protest that decision or direction.
- 34.2 A protest referred to in GC34.1 shall be in writing, contain full reasons for the protest, be signed



by the Contractor and be given to Her Majesty by delivery to the Departmental Representative.

- 34.3 If the Contractor gives a protest pursuant to GC34.2, any compliance by the Contractor with the decision or direction that was protested shall not be construed as an admission by the Contractor of the correctness of that decision or direction, or prevent the Contractor from taking whatever action he considers appropriate in the circumstances.
- 34.4 The giving of a protest by the Contractor pursuant to GC34.2 shall not relieve him from complying with the decision or direction that is the subject of the protest.
- 34.5 Subject to GC34.6, the Contractor shall take any action referred to in GC34.3 within three months after the date that a Final Certificate of Completion is issued under GC44.1 and not afterwards.
- 34.6 The Contractor shall take any action referred to in GC34.3 resulting from a direction under GC32 within three months after the expiry of a warranty or guarantee period and not afterwards.
- 34.7 Subject to GC34.8, if Her Majesty determines that the Contractor's protest is justified, Her Majesty shall pay the Contractor the cost of the additional labour, plant and material necessarily incurred by the Contractor in carrying out the protested decision or direction.
- 34.8 Costs referred to in GC34.7 shall be calculated in accordance with GC48 to GC50.

GC35 Changes in Soil Conditions and Neglect or Delay by Her Majesty

35.1 Subject to GC35.2 no payment, other than a payment that is expressly stipulated in the contract, shall be made by Her Majesty to the Contractor for any extra expense or any loss or damage incurred or sustained by the Contractor.

35.2 If the Contractor incurs or sustains any extra expense or any loss or damage that is directly attributable to

35.2.1 a substantial difference between the information relating to soil conditions at the work site that is contained in the Plans and Specifications or other documents supplied to the Contractor for his use in preparing his tender or a reasonable assumption of fact based thereon made by the Contractor, and the actual soil conditions encountered by the Contractor at the work site during the performance of the contract, or

35.2.2 any neglect or delay that occurs after the date of the contract on the part of Her Majesty in providing any information or in doing any act that the contract either expressly requires Her Majesty to do or that would ordinarily be done by an owner in accordance with the usage of the trade,

he shall, within ten days of the date the actual soil conditions described in GC35.2.1 were encountered or the neglect or delay described in GC35.2.2 occurred, give the Departmental Representative written notice of his intention to claim for that extra expense or that loss or damage.

35.3 When the Contractor has given a notice referred to in GC35.2, he shall give the Departmental Representative a written claim for extra expense or loss or damage within 30 days of the date that



- a Final Certificate of Completion referred to in GC44.1 is issued and not afterwards.
- 35.4 A written claim referred to in GC35.3 shall contain a sufficient description of the facts and circumstances of the occurrence that is the subject of the claim to enable the Departmental Representative to determine whether or not the claim is justified and the Contractor shall supply such further and other information for that purpose as the Departmental Representative requires from time to time.
- 35.5 If the Departmental Representative determines that a claim referred to in GC35.3 is justified, Her Majesty shall make an extra payment to the Contractor in an amount that is calculated in accordance with GC47 to GC50.
- 35.6 If, in the opinion of the Departmental Representative, an occurrence described in GC35.2.1 results in a savings of expenditure by the Contractor in performing the contract, the amount set out in the Articles of Agreement shall, subject to GC35.7, be reduced by an amount that is equal to the saving.
- 35.7 The amount of the saving referred to in GC35.6 shall be determined in accordance with GC47 to GC49.
- 35.8 If the Contractor fails to give a notice referred to in GC35.2 and a claim referred to in GC35.3 within the times stipulated, an extra payment shall not be made to him in respect of the occurrence.

GC36 Extension of Time

- 36.1 Subject to GC36.2, the Departmental Representative may, on the application of the Contractor made before the day fixed by the Articles of Agreement for completion of the work or before any other date previously fixed under this General Condition, extend the time for its completion by fixing a new date if, in the opinion of the Departmental Representative, causes beyond the control of the Contractor have delayed its completion.
- 36.2 An application referred to in GC36.1 shall be accompanied by the written consent of the bonding company whose bond forms part of the contract security.

GC37 Assessments and Damages for Late Completion

- 37.1 For the purposes of this General Condition
- 37.1.1 the work shall be deemed to be completed on the date that an Interim Certificate of Completion referred to in GC44.2 is issued, and
- 37.1.2 "period of delay" means the number of days commencing on the day fixed by the Articles of Agreement 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 GC36.1, and any other day on which, in the opinion of the Departmental Representative, completion of the work was delayed for reasons beyond the control of the Contractor.



- 37.2 If the Contractor does not complete the work by the day fixed for its completion by the Articles of Agreement but completes it thereafter, the Contractor shall pay Her Majesty an amount equal to the aggregate of
- 37.2.1 all salaries, wages and travelling expenses incurred by Her Majesty in respect of persons overseeing the performance of the work during the period of delay;
 - 37.2.2 the cost incurred by Her Majesty as a result of the inability to use the completed work for the period of delay; and
 - 37.2.3 all other expenses and damages incurred or sustained by Her Majesty during the period of delay as a result of the work not being completed by the day fixed for its completion.
- 37.3 The Minister may waive the right of Her Majesty to the whole or any part of the amount payable by the Contractor pursuant to GC37.2 I, in the opinion of the Minister, it is in the public interest to do so.

GC38 Taking the Work Out of the Contractor's Hands

- 38.1 The Minister may, at his sole discretion, by giving a notice in writing to the Contractor in accordance with GC11, take all or any part of the work out of the Contractor's hands, and may employ such means as he sees fit to have the work completed if the Contractor
- 38.1.1 Has not, within six days of the Minister or the Departmental Representative giving notice to the Contractor in writing in accordance with GC11, remedied any delay in the commencement or any default in the diligent performance of the work to the satisfaction of the Departmental Representative;
 - 38.1.2 has defaulted in the completion of any part of the work within the time fixed for its completion by the contract;
 - 38.1.3 has become insolvent;
 - 38.1.4 has committed an act of bankruptcy;
 - 38.1.5 has abandoned the work;
 - 38.1.6 has made an assignment of the contract without the consent required by GC3.1; or
 - 38.1.7 has otherwise failed to observe or perform any of the provisions of the contract.
- 38.2 If the whole or any part of the work is taken out of the Contractor's hands pursuant to GC38.1,
- 38.2.1 the Contractor's right to any further payment that is due or accruing due under the contract is, subject only to GC38.4, extinguished, and
 - 38.2.2 the Contractor is liable to pay Her Majesty, upon demand, an amount that is equal to the amount of all loss and damage incurred or sustained by Her Majesty in respect of the



Contractor's failure to complete the work.

- 38.3 If the whole or any part of the work that is taken out of the Contractor's hands pursuant to GC38.1 is completed by Her Majesty, the Departmental Representative shall determine the amount, if any, of the holdback or a progress claim 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 Her Majesty for any other loss or damage incurred or sustained by reason of the Contractor's default.
- 38.4 Her Majesty may pay the Contractor the amount determined not to be required pursuant to GC38.3.

GC39 Effect of Taking the Work Out of the Contractor's Hands

- 39.1 The taking of the work or any part thereof out of the Contractor's hands pursuant to GC38 does not operate so as to relieve or discharge him from any obligation under the contract or imposed upon him by law except the obligation to complete the performance of that part of the work that was taken out of his hands.
- 39.2 If the work or any part thereof is taken out of the Contractor's hands pursuant to GC38, all plant and material and the interest of the Contractor is all real property, licenses, powers and privileges acquired, used or provided by the Contractor under the contract shall continue to be the property of Her Majesty without compensation to the Contractor.
- 39.3 When the Departmental Representative certifies that any plant, material, or any interest of the Contractor referred to in GC39.2 is no longer required for the purposes of the work, or that it is not in the interest of Her Majesty to retain that plant, material or interest, it shall revert to the Contractor.

G40 Suspension of Work by Minister

- 40.1 The Minister may, when in his opinion it is in the public interest to do so, 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 GC11.
- 40.2 When a notice referred to in GC40.1 is received by the Contractor in accordance with GC11, he shall suspend all operations in respect of the work except those that, in the opinion of the Departmental Representative, are necessary for the care and preservation of the work, plant and material.
- 40.3 The Contractor shall not, during a period of suspension, remove any part of the work, plant or material from its site without the consent of the Departmental Representative.
- 40.4 If a period of suspension is 30 days or less, the Contractor shall, upon the expiration of that period, resume the performance of the work and he is entitled to be paid the extra cost, calculated in accordance with GC48 to GC50, of any labour, plant and material necessarily incurred by him as a result of the suspension.



- 40.5 If, upon the expiration of a period of suspension of more than 30 days, the Minister and the Contractor agree that the performance of the work will be continued by the Contractor, the Contractor shall resume performance of the work subject to any terms and conditions agreed upon by the Minister and the Contractor.
- 40.6 If, upon the expiration of a period of suspension of more than 30 days, the Minister and the Contractor do not agree that performance of the work will be continued by the Contractor or upon the terms and conditions under which the Contractor will continue the work, the notice of suspension shall be deemed to be a notice of termination pursuant to GC41.

GC41 Termination of Contract

- 41.1 The Minister may terminate the contract at any time by giving a notice of termination in writing to the Contractor in accordance with GC11.
- 41.2 When a notice referred to in GC41.1 is received by the Contractor in accordance with GC11, he shall, subject to any conditions stipulated in the notice, forthwith cease all operations in performance of the contract.
- 41.3 If the contract is terminated pursuant to GC41.1, Her Majesty shall pay the Contractor, subject to GC41.4, an amount equal to
- 41.3.1 the cost to the contractor of all labour, plant and material supplied by him under the contract up to the date of termination in respect of a contract or part thereof for which a Unit Price Arrangement is stipulated in the contract, or
- 41.3.2 the lesser of
- 41.3.2.1 an amount, calculated in accordance with the Terms and Payment, that would have been payable to the Contractor had he completed the work, and
- 41.3.2.2 an amount that is determined to be due to the Contractor pursuant to GC49 in respect of a contract or part thereof for which a Fixed Price Arrangement is stipulated in the contract
- less the aggregate of all amounts that were paid to the Contractor by Her Majesty and all amounts that are due to Her Majesty from the Contractor pursuant to the contract.
- 41.4 If Her Majesty and the Contractor are unable to agree about an amount referred to in GC41.3 that amount shall be determined by the method referred to in GC50.

GC42 Claims Against and Obligations of the Contractor or Subcontractor

- 42.1 Her Majesty may, in order to discharge lawful obligations of and satisfy claims against the Contractor or a subcontractor arising out of the performance of the contract, pay any amount that is due and payable to the Contractor pursuant to the contract directly to the obligees of and the claimants against the Contractor or the subcontractor but such amount if any, as is paid by Her Majesty, shall not exceed that amount which the Contractor would have been obliged to pay to



such claimant had the provisions of the Provincial or Territorial lien legislation, or, in the Province of Quebec, the law relating to privileges, been applicable to the work. Any such 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 claimant might have had;

42.2 Her Majesty will not make any payment as described in GC42.1 unless and until that claimant shall have delivered to Her Majesty:

42.2.1 a binding and enforceable Judgment or Order of a court of competent jurisdiction setting forth such amount as would have been payable by the Contractor to the claimant pursuant to the provisions of the applicable Provincial or Territorial lien legislation, or, in the Province of Quebec, the law relating to privileges, had such legislation been applicable to the work; or

42.2.2 a final and enforceable award of an arbitrator setting forth such amount as would have been payable by the Contractor to the claimant pursuant to the provisions of the applicable Provincial or Territorial lien legislation, or, in the Province of Quebec, the law relating to privileges, had such legislation been applicable to the work; or

42.2.3 the consent of the Contractor authorizing a payment.

For the purposes of determining the entitlement of a claimant pursuant to GC42.2.1 and GC42.2.2, the notice required by GC42.8 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 any applicable legislation.

42.3 The Contractor shall, by the execution of his contract, be deemed to have consented to submit to binding arbitration at the request of any claimant those questions that need be answered to establish the entitlement of the claimant to payment pursuant to the provisions of GC42.1 and such arbitration shall have as parties to it any subcontractor to whom the claimant supplied material, performed work or rented equipment should such subcontractor wish to be adjoined and the Crown shall not be a party to such arbitration and, subject to any agreement between the Contractor and the claimant to the contrary, the arbitration shall be conducted in accordance with the Provincial or Territorial legislation governing arbitration applicable in the Province or Territory in which the work is located.

42.4 A payment made pursuant to GC42.1 is, to the extent of the payment, a discharge of Her Majesty's liability to the Contractor under the contract and may be deducted from any amount payable to the Contractor under the contract.

42.5 To the extent that the circumstances of the work being performed for Her Majesty permit, the Contractor shall comply with all laws in force in the Province or Territory where the work is being performed relating to payment period, mandatory holdbacks, and creation and enforcement of mechanics' liens, builders' liens or similar legislation or in the Province of Quebec, the law relating to privileges.

42.6 The Contractor shall discharge all his lawful obligations and shall satisfy all lawful claims against him arising out of the performance of the work at least as often as the contract requires Her



Majesty to pay the Contractor.

- 42.7 The Contractor shall, whenever requested to do so by the Departmental Representative, make a statutory declaration deposing to the existence and condition of any obligations and claims referred to in GC42.6.
- 42.8 GC42.1 shall only apply to claims and obligations
- 42.8.1 the notification of which has been received by the Departmental Representative in writing before payment is made to the Contractor pursuant to TP4.10 and within 120 days of the date on which the claimant
- 42.8.1.1 should have been paid in full under the claimant's contract with the Contractor or subcontractor where the claim is for money that was lawfully required to be held back from the claimant; or
- 42.8.1.2 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 subcontractor where the claim is not for money referred to in GC42.8.1.1, and
- 42.8.2 the proceedings to determine the right to payment of which, pursuant to GC42.2, shall have commenced within one year from the date that the notice referred to in GC42.8.1 was received by the Departmental Representative, and
- the notification required by GC42.8.1 shall set forth the amount claimed to be owing and the person who by contract is primarily liable.
- 42.9 Her Majesty may, upon receipt of a notice of claim under GC42.8.1, 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.
- 42.10 The Departmental Representative shall notify the Contractor in writing of receipt of any claim referred to in GC42.8.1 and of the intention of Her Majesty to withhold funds pursuant to GC42.9 and the Contractor may, at any time thereafter and until payment is made to the claimant, be entitled to post, with Her Majesty, security in a form acceptable to Her Majesty in an amount equal to the value of the claim, the notice of which is received by the Departmental Representative and upon receipt of such security Her Majesty shall release to the Contractor any funds which would be otherwise payable to the Contractor, that were withheld pursuant to the provisions of GC42.9 in respect of the claim of any claimant for whom the security stands.

GC43 Security Deposit – Forfeiture or Return

- 43.1 If
- 43.1.1 the work is taken out of the Contractor's hands pursuant to GC38,
- 43.1.2 the contract is terminated pursuant to GC41, or
- 43.1.3 the Contractor is in breach of or in default under the contract,



Her Majesty may convert the security deposit, if any, to Her own use.

- 43.2 If Her Majesty converts the contract security pursuant to GC43.1, the amount realized shall be deemed to be an amount due from Her Majesty to the Contractor under the contract.
- 43.3 Any balance of an amount referred to in GC43.2 that remains after payment of all losses, damage and claims of Her Majesty and others shall be paid by Her Majesty to the Contractor if, in the opinion of the Departmental Representative, it is not required for the purposes of the contract.

GC44 Departmental Representative's Certificates

- 44.1 On the date that
- 44.1.1 the work has been completed, and
 - 44.1.2 the Contractor has complied with the contract and all orders and directions made pursuant thereto,
- both to the satisfaction of the Departmental Representative, the Departmental Representative shall issue a Final Certificate of Completion to the Contractor.
- 44.2 If the Departmental Representative is satisfied that the work is substantially complete he shall, at any time before he issues a certificate referred to in GC44.1, issue an Interim Certificate of Completion to the Contractor, and
- 44.2.1 for the purposes of GC44.2 the work will be considered to be substantially complete,
 - 44.2.1.1 when the work under the contract or a substantial part thereof is, in the opinion of the Departmental Representative, ready for use by Her Majesty or is being used for the purpose intended; and
 - 44.2.1.2 when the work remaining to be done under the contract is, in the opinion of the Departmental Representative, capable of completion or correction at a cost of not more than
 - 44.2.1.2.1 -3% of the first \$500,000, and
 - 44.2.1.2.2 -2% of the next \$500,000, and
 - 44.2.1.2.3 -1% of the balance
- of the value of the contract at the time this cost is calculated.
- 44.3 For the sole purpose of GC44.2.1.2, where the work or a substantial part thereof is ready for use or is being used for the purposes intended and the remainder of the work or a part thereof cannot be completed by the time specified in A2.1, or as amended pursuant to GC36, for reasons beyond the control of the Contractor or where the Departmental Representative and the Contractor agree not to complete a part of the work within the specified time, the cost of that part of the work



which was either beyond the control of the Contractor to complete or the Departmental Representative and the Contractor have agreed not to complete by the time specified shall be deducted from the value of the contract referred to GC44.2.1.2 and the said cost shall not form part of the cost of the work remaining to be done in determining substantial completion.

- 44.4 An Interim Certificate of Completion referred to in GC44.2 shall describe the parts of the work not completed to the satisfaction of the Departmental Representative and all things that must be done by the Contractor
- 44.4.1 before a Final Certificate of Completion referred to in GC44.1 will be issued, and
- 44.4.2 before the 12-month period referred to in GC32.1.2 shall commence for the said parts and all the said things.
- 44.5 The Departmental Representative may, in addition to the parts of the work described in an Interim Certificate of Completion referred to in GC44.2, require the Contractor to rectify any other parts of the work not completed to his satisfaction and to do any other things that are necessary for the satisfactory completion of the work.
- 44.6 If the contract or a part thereof is subject to a Unit Price Arrangement, the Departmental Representative shall measure and record the quantities of labour, plant and material, performed, used and supplied by the Contractor in performing the work and shall, at the request of the Contractor, inform him of those measurements.
- 44.7 The Contractor shall assist and co-operate with the Departmental Representative in the performance of his duties referred to in GC44.6 and shall be entitled to inspect any record made by the Departmental Representative pursuant to GC44.6.
- 44.8 After the Departmental Representative has issued a Final Certificate of Completion referred to in GC44.1, he shall, if GC44.6 applies, issue a Final Certificate of Measurement.
- 44.9 A Final Certificate of Measurement referred to in GC44.8 shall
- 44.9.1 contain the aggregate of all measurements of quantities referred to in GC44.6, and
- 44.9.2 be binding upon and conclusive between Her Majesty and the Contractor as to the quantities referred to therein.

GC45 Return of Security Deposit

- 45.1 After an Interim Certificate of Completion referred to in GC44.2 has been issued, Her Majesty shall, if the Contractor is not in breach of or in default under the contract, return to the Contractor all or any part of the security deposit that, in the opinion of the Departmental Representative, is not required for the purposes of the contract.
- 45.2 After a Final Certificate of Completion referred to in GC44.1 has been issued, Her Majesty shall return to the Contractor the remainder of any security deposit unless the contract stipulates otherwise.



- 45.3 If the security deposit was paid into the Consolidated Revenue Fund of Canada, Her Majesty shall pay interest thereon to the Contractor at a rate established from time to time pursuant to section 21(2) of the Financial Administration Act.

GC46 Clarification of Terms in GC47 to GC50

- 46.1 For the purposes of GC47 to GC50,
- 46.1.1 "Unit Price Table" means the table set out in the Articles of Agreement, and
- 46.1.2 "plant" does not include tools customarily provided by a tradesman in practicing his trade.

GC47 Additions or Amendments to Unit Price Table

- 47.1 Where a Unit Price Arrangement applies to the contract or a part thereof the Departmental Representative and the Contractor may, by an agreement in writing,
- 47.1.1 add classes of labour or material, and units of measurement, prices per unit and estimated quantities to the Unit Price Table if any labour, plant or material that is to be included in the Final Certificate of Measurement referred to in GC44.8 is not included in any class of labour, plant or material set out in the Unit Price Table; or
- 47.1.2 subject to GC47.2 and GC47.3, amend a price set out in the Unit Price Table for any class of labour, plant or material included therein if the Final Certificate of Measurement referred to in GC44.8 shows or is expected to show that the total quantity of that class of labour, plant or material actually performed, used or supplied by the Contractor in performing the work is
- 47.1.2.1 less than 85% of that estimated total quantity, or
- 47.1.2.2 in excess of 115% of that estimated total quantity.
- 47.2 In no event shall the total cost of an item set out in the Unit Price Table that has been amended pursuant to GC47.1.2.1 exceed the amount that would have been payable to the Contractor had the estimated total quantity actually been performed, used or supplied.
- 47.3 An amendment that is made necessary by GC47.1.2.2 shall apply only to the quantities that are in excess of 115%.
- 47.4 If the Departmental Representative and the Contractor do not agree as contemplated in GC47.1, the Departmental Representative shall determine the class and the unit of measurement of the labour, plant or material and, subject to GC47.2 and GC47.3, the price per unit therefore shall be determined in accordance with GC50.

GC48 Determination of Cost – Unit Price Table



- 48.1 Whenever, for the purposes of the contract, it is necessary to determine the cost of labour, plant or material, it shall be determined by multiplying the quantity of that labour, plant or material expressed in the unit set out in column 3 of the Unit Price Table by the price of that unit set out in column 5 of the Unit Price Table.

GC49 Determination of Cost – Negotiation

- 49.1 If the method described in GC48 cannot be used because the labour, plant or material is of a kind or class that is not set out in the Unit Price Table, the cost of that labour, plant or material for the purposes of the contract shall be the amount agreed upon from time to time by the Contractor and the Departmental Representative.
- 49.2 For the purposes of GC49.1, the Contractor shall submit to the Departmental Representative any necessary cost information requested by the Departmental Representative in respect of the labour, plant and material referred to in GC49.1

GC50 Determination of Cost – Failing Negotiation

- 50.1 If the methods described in GC47, GC48 or GC49 fail for any reason to achieve a determination of the cost of labour, plant and material for the purposes referred to therein, that cost shall be equal to the aggregate of
- 50.1.1 all reasonable and proper amounts actually expended or legally payable by the Contractor in respect of the labour, plant and material that falls within one of the classes of expenditure described in GC50.2 that are directly attributable to the performance of the contract,
 - 50.1.2 an allowance for profit and all other expenditures or costs, including overhead, general administration cost, financing and interest charges, and every other cost, charge and expenses, but not including those referred to in GC50.1.1 or GC50.1.3 or a class referred to in GC50.2, in an amount that is equal to 10% of the sum of the expenses referred to in GC50.1.1, and
 - 50.1.3 interest on the cost determined under GC50.1.1 and GC50.1.2, which interest shall be calculated in accordance with TP9,
- provide that the total cost of an item set out in the Unit Price Table that is subject to the provisions of GC47.1.2.1 does not exceed the amount that would have been payable to the Contractor had the estimated total quantity of the said item actually be performed, used or supplied.
- 50.2 For purposes of GC50.1.1 the classes of expenditure that may be taken into account in determining the cost of labour, plant and material are,
- 50.2.1 payments to subcontractors;
 - 50.2.2 wages, salaries and travelling expenses of employees of the Contractor while they are actually and properly engaged on the work, other than wages, salaries, bonuses, living



and travelling expenses of personnel of the Contractor generally employed at the head office or at a general office of the Contractor unless they are engaged at the work site with the approval of the Departmental Representative,

- 50.2.3 assessments payable under any statutory authority relating to workmen's compensation, unemployment insurance, pension plan or holidays with pay;
- 50.2.4 rent that is paid for plant or an amount equivalent of 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 of the equivalent amount is reasonable and use of that plant has been approved by the Departmental Representative;
- 50.2.5 payments for maintaining and operating plant necessary for and used in the performance of the work, and payments for effecting such repairs thereto as, in the opinion of the Departmental Representative, are necessary to 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;
- 50.2.6 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;
- 50.2.7 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
- 50.2.8 any other payments made by the Contractor with the approval of the Departmental Representative that are necessary for the performance of the contract.

GC51 Records to be kept by Contractor

51.1 The Contractor shall

- 51.1.1 maintain full records of his estimated and actual cost of the work together with all tender calls, quotations, contracts, correspondence, invoices, receipts and vouchers relating thereto.
 - 51.1.2 make all records and material referred to in GC5.1.1 available to audit and inspection by the Minister and the Deputy Receiver General for Canada or by persons acting on behalf of either of both of them, when requested;
 - 51.1.3 allow any of the person referred to in GC51.1.2 to make copies of and to take extracts from any of the records and material referred to in GC51.1.1; and
 - 51.1.4 furnish any person referred to in GC51.1.2 with any information he may require from time to time in connection with such records and material.
- 51.2 The records maintained by the Contractor pursuant to GC51.1.1 shall be kept intact by the Contractor until the expiration of two years after the date that a Final Certificate of Completion referred to in GC44.1 was issued or until the expiration of such other period of time as the



Minister may direct.

- 51.3 The Contractor shall cause all subcontractors 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 GC51.1 and GC51.2 as if they were the Contractor.

GC52 Conflict of Interest

- 52.1 It is a term of this contract that no former public office holder who is not in compliance with the Conflict of Interest and Post-Employment Code for Public Office Holders shall derive a direct benefit from this contract.

GC53 Contractor Status

- 53.1 The Contractor shall be engaged under the contract as an independent contractor.
- 53.2 The Contractor and any employee of the said Contractor is not engaged by the contract as an employee, servant or agent of Her Majesty.
- 53.3 For the purposes of GC53.1 and GC53.2 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, Unemployment Insurance, Worker's Compensation or Income Tax.



<p style="text-align: center;">APPENDIX 'D'</p> <p style="text-align: center;">Fair Wages and Hours of Labour</p> <p style="text-align: center;">Labour Conditions</p>	<p style="text-align: center;">ANNEXE 'D'</p> <p style="text-align: center;">Justes Salaires et Heures de Travail</p> <p style="text-align: center;">Conditions de Travail</p>
<p>Index</p> <p>01 Interpretation 02 General Fair Wage Clause 03 Hours of Work 04 Labour Conditions to be Posted 05 The Contractor to Keep Records which are to be Kept Open for Inspection 06 Departmental Requirements before Payment made to Contractor 07 Authority to pay Wages in the Event of Default by the Contractor 08 Conditions of Subcontracting 09 Non-discrimination in Hiring and Employment of Labour</p>	<p>Table des Matières</p> <p>01 Interprétation 02 Clause générale de justes salaires 03 Durée du travail 04 Affichage des conditions de travail 05 L'entrepreneur s'engage à tenir des dossiers pour fins d'inspection 06 Exigences du ministère avant le versement des sommes dues à l'entrepreneur 07 Paiement des salaires par l'adjudicateur si l'entrepreneur omet de le faire 08 Conditions imposées à un sous-traitant 09 Non-discrimination dans l'embauchage et l'emploi de main-d'oeuvre</p>
<p>01 Interpretation</p> <p>In these Conditions</p> <p>(a) "Act" means the Fair Wages and Hours of Labour Act;</p> <p>(b) "Regulations" means the Fair Wages and Hours of Labour Regulations made pursuant to the Act;</p> <p>(c) "contract" means the contract of which these Labour Conditions are part;</p> <p>(d) "contracting authority" means the department of Government or a crown corporation with whom the contract is made;</p> <p>(e) "contractor" means the person who has entered into the contract with the contracting authority;</p> <p>(f) "regional director" means the director of a regional office of the Department of Human Resources Development or the director's designated representative;</p> <p>(g) "inspector" has the meaning assigned to the term by Part III of the Canada Labour Code.</p> <p>(h) "Minister" means the Minister of Labour of Canada;</p> <p>(i) "persons" means those workers employed by the contractor, subcontractor or any other person doing or contracting to do the whole or any part of the work contemplated by the contract;</p>	<p>01 Interprétation</p> <p>Dans ces conditions</p> <p>a) «Loi» désigne la Loi sur les justes salaires et les heures de travail;</p> <p>b) «Règlement» désigne le Règlement sur les justes salaires et les heures de travail établi en application de la Loi;</p> <p>c) «contrat» désigne le contrat auquel sont annexées les présentes Conditions de travail;</p> <p>d) «adjudicateur» désigne le ministère du gouvernement ou la société d'État avec lequel le contrat a été passé;</p> <p>e) «entrepreneur» désigne la personne qui a passé le contrat avec l'adjudicateur;</p> <p>f) «directeur régional» le responsable d'un bureau régional du ministère du Développement des ressources humaines ou son représentant désigné;</p> <p>g) «inspecteur» s'entend au sens de la partie III du Code canadien du travail;</p> <p>h) «Ministre» désigne le ministre du Travail du Canada;</p> <p>i) «personnes» désigne les travailleurs employés par l'entrepreneur, le sous-traitant ou toute autre personne exécutant ou s'engageant par contrat à exécuter la totalité ou une partie quelconque des travaux prévus dans le contrat;</p>

<p>02 General Fair Wage Clause</p> <p>(a) All persons in the employ of the contractor, subcontractor, or any other person doing or contracting to do the whole or any part of the work contemplated by the contract, shall during the continuance of the work:</p> <p>i) be paid fair wages that is, such wages as are generally accepted as current for competent workers in the district in which the work is being performed for the character or class of work in which such workers are respectively engaged; and</p> <p>ii) in all cases, be paid no less than the minimum hourly rate of pay established by the Labour Program of the Department of Human Resources Development in the Fair Wage Schedules which form a part of this contract as Appendix A to these Labour Conditions; and</p> <p>iii) for contracts covering work performed in the province of Quebec, be paid at least the wage rates established by that province for the purposes of the Quebec "Construction Decree".</p> <p>(b) Where there is no wage rate in the schedules referred to in (a) for a particular character or class of work, the contractor shall pay wages for that character or class of work at a rate not less than the rate for an equivalent character or class of work.</p> <p>(c) Where during the term of the contract, the contractor receives notice from the contracting authority of any change in wage rates, the contractor shall pay not less than the changed wage rate beginning on the first day after receipt, by the contractor, of the notice of the change in wage rates.</p>	<p>02 Clause générale de justes salaires</p> <p>(a) Toutes les personnes employées par l'entrepreneur, le sous-traitant ou toute autre personne exécutant ou s'engageant par contrat à exécuter la totalité ou une partie quelconque des travaux prévus dans le contrat seront payées :</p> <p>i) des justes salaires tant que dureront les travaux, c'est-à-dire les salaires généralement reconnus comme salaires courants pour les travailleurs qualifiés dans la région où les travaux sont exécutés, selon la nature ou la catégorie du travail auquel ces travailleurs sont respectivement affectés; et</p> <p>ii) dans tous les cas, pas moins que les taux horaires minima fixés par le Programme du travail du ministère du Développement des ressources humaines dans les échelles de justes salaires qui deviennent partie de ce contrat en tant qu'Annexe A de ces Conditions de travail; et</p> <p>iii) pour les contrats concernant les travaux effectués dans la province de Québec, pas moins que les taux de salaires qui sont établis par cette province pour les fins du "Décret de la construction" du Québec.</p> <p>(b) Lorsqu'il n'y a aucun taux prévu dans l'échelle des taux de salaires à l'égard d'un travail d'une nature ou d'une catégorie données, l'entrepreneur verse à l'employé un taux de salaire qui n'est pas inférieur à celui établi pour un travail de nature ou de catégorie équivalente.</p> <p>(c) Lorsque pendant la durée du contrat, l'entrepreneur reçoit de l'adjudicateur un avis de modification à l'échelle de salaires, l'entrepreneur rémunère les employés touchés par cette modification à des taux qui ne sont pas inférieurs aux taux modifiés à compter de la journée qui suit la réception par lui, de l'avis.</p>
<p>03 Hours of Work</p> <p>(a) The hours of work in a day and in a week of persons employed in the execution of the contract, including the hours of work in excess of which a person shall be paid overtime at a rate at least equal to one and one half times the fair wage, are the hours of work for the province in which the work is being performed as set out from time to time in an Act of that province.</p> <p>(b) The daily or weekly hours of work referred to in paragraph (a) may be exceeded in accordance with the applicable provincial law.</p>	<p>03 Durée du travail</p> <p>(a) Les heures de travail quotidiennes et hebdomadaires des personnes employées à l'exécution du contrat, notamment les heures au-delà desquelles une personne doit être rétribuée selon le tarif pour heures supplémentaires, soit au moins le juste salaire majoré de 50 pour cent, sont celles fixées et éventuellement modifiées par la législation de la province dans laquelle le travail est effectué.</p> <p>(b) Les heures de travail quotidiennes ou hebdomadaires mentionnées à l'alinéa (a) peuvent être dépassées conformément à la législation provinciale applicable.</p>

<p>04 Labour Conditions to be Posted</p> <p>For the information and the protection of all persons, the contractor agrees to post and keep posted, in a conspicuous place on the premises where work contemplated by the contract is being carried out or on premises occupied or used by persons engaged in carrying out such work, a copy of these Labour Conditions, and a copy of the applicable Fair Wage Schedules along with any subsequent changes.</p>	<p>04 Affichage des conditions de travail</p> <p>Pour l'information et la protection de toutes les personnes, l'entrepreneur convient d'afficher et de tenir affichés, bien à la vue, à l'endroit où les travaux prévus dans le contrat sont exécutés, ou dans les locaux occupés ou fréquentés par les personnes employées à l'exécution desdits travaux, un exemplaire des présentes Conditions de travail, un exemplaire de l'échelle de justes salaires applicable et toutes modifications subséquentes.</p>
<p>05 The Contractor to Keep Records which are to be Kept Open for Inspection</p> <p>(a) The contractor agrees to keep books and records showing the names, addresses, classifications of employment and work of all workers employed under the contract, the rate of wages to be paid, the wages paid and the daily hours worked by the workers.</p> <p>(b) The contractor also agrees that the contractor's books, records and premises will be open at all reasonable times for inspection by an inspector.</p> <p>(c) The contractor also agrees to furnish the inspector and the contracting authority, on request, with such further information as is required to ascertain that the requirements of the Act, the Regulations and the contract with respect to wages, hours of work and other labour conditions have been complied with.</p>	<p>05 L'entrepreneur tient des dossiers pour fins d'inspection</p> <p>(a) L'entrepreneur convient de tenir les registres et dossiers où sont consignés le nom, l'adresse et la catégorie d'emploi et de travail de tous les travailleurs employés à des travaux exécutés en vertu du contrat, de même que le taux de salaire, le salaire payé et la durée journalière du travail pour chacun de ces travailleurs.</p> <p>(b) L'entrepreneur convient également à faire en sorte que ses registres, ses dossiers et ses locaux soient accessibles en tout temps opportun, pour fins d'inspection par un inspecteur.</p> <p>(c) L'entrepreneur convient en outre de fournir, sur demande, à l'inspecteur et à l'adjudicateur tous les autres renseignements requis pour permettre de constater qu'on a satisfait aux exigences de la Loi, des règlements et du contrat en ce qui concerne les salaires, la durée du travail et les autres conditions de travail.</p>
<p>06 Departmental Requirements before Payment made to Contractor</p> <p>(a) The contractor agrees that the contractor will not be entitled to payment of any money otherwise payable under the contract until the contractor has filed with the contracting authority in support of a claim for payment a sworn statement:</p> <p>(i) that the contractor has kept the books and records required by these Regulations,</p> <p>(ii) that there are no wages in arrears in respect of work performed under the contract, and</p> <p>(iii) that to the contractor's knowledge, all the conditions in the contract required by the Act and the Regulations have been complied with.</p> <p>(b) The contractor also agrees that, where fair wages have not been paid by the contractor to persons employed under the contract, the contracting authority shall withhold from any money otherwise payable under the contract to the contractor the amount necessary to ensure that fair wages are paid to all employees until fair wages are paid.</p>	<p>06 Exigences du ministère avant le versement des sommes dues à l'entrepreneur</p> <p>(a) L'entrepreneur convient qu'il n'aura droit au paiement d'aucune somme qui autrement devrait lui être versée en vertu du contrat tant qu'il n'aura pas déposé auprès de l'adjudicateur, à l'appui de sa réclamation de paiement, une déclaration sous serment indiquant:</p> <p>(i) qu'il a tenu les registres et dossiers requis par les présents règlements,</p> <p>(ii) qu'il n'y a pas d'arrérages de salaires à l'égard des travaux exécutés en vertu du contrat, et</p> <p>(iii) qu'à sa connaissance, toutes les conditions du contrat exigées par la Loi et les règlements ont été observées.</p> <p>(b) L'entrepreneur convient en outre que lorsqu'il n'a pas versé un juste salaire à une personne employée en vertu du contrat, l'adjudicateur sera autorisé à retenir de toute somme autrement payable à l'entrepreneur en vertu du contrat la somme requise pour assurer le paiement de justes salaires à tous les employés jusqu'à ce qu'ils aient touché leur juste salaire.</p>

<p>07 Authority to pay Wages in the Event of Default by the Contractor</p> <p>(a) The contractor agrees that where the contractor is in default of payment of fair wages to an employee, the contractor will pay the Minister the amount the contractor is in default.</p> <p>(b) The contractor agrees that where the contractor fails to comply with paragraph (a), the contracting authority will pay to the Receiver General, out of any money otherwise payable to the contractor, the amount for which the contractor is in default.</p>	<p>07 Paiement des salaires par l'adjudicateur si l'entrepreneur omet de le faire</p> <p>(a) L'entrepreneur convient qu'à défaut du paiement par ce dernier d'un juste salaire à un travailleur, l'entrepreneur devra verser au ministre le montant qu'il a omis de payer.</p> <p>(b) L'entrepreneur convient que s'il omet de se conformer au paragraphe (a), l'adjudicateur paiera au Receveur général, à même les sommes autrement payables à l'entrepreneur, le montant qu'il a omis de payer.</p>
<p>08 Conditions of Subcontracting</p> <p>The contractor and the subcontractor agree that in subcontracting any part of the work contemplated by the contract, they will place in the subcontract the conditions respecting fair wages, hours of work and other labour conditions set out in the contract and the requirements set out in Section 4. The contractor further agrees that the contractor will be responsible for carrying out these conditions in the event the subcontractor fails to carry them out.</p>	<p>08 Conditions imposées à un sous-traitant</p> <p>L'entrepreneur et le sous-traitant conviennent, dans l'adjudication à un sous-traitant de toute partie des travaux prévus par le contrat, d'insérer dans le sous-contrat les conditions relatives aux justes salaires, à la durée du travail et autres conditions de travail indiquées dans le contrat ainsi que les obligations énoncées à l'article 4. L'entrepreneur convient en outre qu'il sera responsable du respect de ces conditions si elles ne sont pas respectées par le sous-traitant.</p>
<p>09 Non-discrimination in Hiring and Employment of Labour</p> <p>The contractor agrees that in the hiring and employment of workers to perform any work under the contract, the contractor will not refuse to employ and will not discriminate in any manner against any person because</p> <p>(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;</p> <p>(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</p> <p>(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).</p>	<p>09 Non-discrimination dans l'embauchage et l'emploi de main-d'oeuvre</p> <p>L'entrepreneur convient que dans l'embauchage et l'emploi des travailleurs aux fins de l'exécution de tout travail en vertu du contrat, l'entrepreneur ne refusera pas d'employer une personne ou d'exercer de quelque façon que ce soit des distinctions injustes à l'endroit d'une personne en raison</p> <p>(a) de la race, de l'origine nationale ou ethnique, de la couleur, de la religion, de l'âge, du sexe, de l'orientation sexuelle, de l'état matrimonial, de la situation de famille, de l'état de personne graciée ou d'une déficience de la personne;</p> <p>(b) de la race, de l'origine nationale ou ethnique, de la couleur, de la religion, de l'âge, du sexe, de l'orientation sexuelle, de l'état matrimonial, de la situation de famille, de l'état de personne graciée ou d'une déficience de toute personne ayant un lien avec elle;</p> <p>(c) du fait que cette personne a porté plainte ou a fourni des renseignements ou parce qu'une plainte a été portée ou des renseignements ont été fournis en son nom relativement à toute prétendue omission de la part de l'entrepreneur de se conformer aux sous-alinéas (a) ou (b).</p>



GENERAL CONDITONS

- IC 1 Proof of Insurance**
- IC 2 Risk Management**
- IC 3 Payment of Deductible**
- IC 4 Insurance Coverage**

GENERAL INSUANCE COVERAGES

- GCI 1 Insured**
- GIC 2 Period of Insurance**
- GIC 3 Proof of Insurance**
- GIC 4 Notification**

COMMERCIAL GENERAL LIABILITY

- CGL 1 Scope of Policy**
- CGL 2 Coverages/Provisions**
- CGL 3 Additional Exposures**
- CGL 4 Insurance Proceeds**
- CGL 5 Deductible**

BUILDER'S RISK – INSTALLATION FLOATER – ALL RISKS

- BR 1 Scope of Policy**
- BR 2 Property Insured**
- BR 3 Insurance Proceeds**
- BR 4 Amount of Insurance**
- BR 5 Deductible**
- BR 6 Subrogation**
- BR 7 Exclusion Qualifications**

INSURER'S CERTIFICATE OF INSURANCE



General Conditions

IC 1 Proof of Insurance (02/12/03)

Within thirty (30) days after acceptance of the Contractor's tender, the Contractor shall, unless otherwise directed in writing by the Contracting Officer, deposit with the Contracting Officer an Insurer's Certificate of Insurance in the form displayed in this document and, if requested by the Contracting Officer, the originals or certified true copies of all contracts of insurance maintained by the Contractor pursuant to the Insurance Coverage Requirements shown hereunder.

IC 2 Risk Management (01/10/94)

The provisions of the Insurance Coverage Requirements contained hereunder are not intended to cover all of the Contractor's obligations under GC8 of the General Conditions "C" of the contract. Any additional risk management measures or additional insurance coverages the Contractor may deem necessary to fulfill its obligations under GC8 shall be at its own discretion and expense.

IC 3 Payment of Deductible (01/10/94)

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

IC 4 Insurance Coverage (02/12/03)

The Contractor has represented that it has in place and effect the appropriate and usual liability insurance coverage as required by these Insurance Conditions and the Contractor has warranted that it shall obtain, in a timely manner and prior to commencement of the Work, the appropriate and usual property insurance coverage as required by these Insurance Conditions and, further, that it shall maintain all required insurance policies in place and effect as required by these Insurance Conditions.



INSURANCE COVERAGE REQUIREMENTS

PART I GENERAL INSURANCE COVERAGES (GIC)

GIC 1 Insured (02/12/03)

Each insurance policy shall insure the Contractor, and shall include, as an Additional Named Insured, Her Majesty the Queen in right of Canada, represented by the National Research Council Canada.

GIC 2 Period of Insurance (02/12/03)

Unless otherwise directed in writing by the Contracting Officer or otherwise stipulated elsewhere in these Insurance Conditions, the policies required hereunder shall be in force and be maintained from the date of the contract award until the day of issue of the Departmental Representative's Final Certificate of Completion.

GIC 3 Proof of Insurance (01/10/94)

Within twenty five (25) days after acceptance of the Contractor's tender, the Insurer shall, unless otherwise directed by the Contractor, deposit with the Contractor an Insurer's Certificate of Insurance in the form displayed in the document and, if requested, the originals or certified true copies of all contracts of insurance maintained by the Contractor pursuant to the requirements of these Insurance Coverages.

GIC 4 Notification (01/10/94)

Each Insurance policy shall contain a provision that (30) days prior written notice shall be given by the Insurer to Her Majesty in the event of any material change in or cancellation of coverage. Any such notice received by the Contractor shall be transmitted forthwith to Her Majesty.

PART II COMMERCIAL GENERAL LIABILITY

CGL 1 Scope of Policy (01/10/94)

The policy shall be written on a form similar to that known and referred to in the insurance industry as IBC 2100 – Commercial General Liability policy (Occurrence form) and shall provide for limit of liability of not less than \$2,000,000 inclusive for Bodily Injury and Property Damage for any one occurrence or series of occurrences arising out of one cause. Legal or defence cost incurred in respect of a claim or claims shall not operate to decrease the limit of liability.

CGL 2 Coverages/Provisions (01/10/94)



The policy shall include but not necessarily be limited to the following coverages/provisions.

- 2.1 Liability arising out of or resulting from the ownership, existence, maintenance or use of premises by the Contractor and operations necessary or incidental to the performance of this contract.
- 2.2 "Broad Form" Property Damage including the loss of use of property.
- 2.3 Removal or weakening of support of any building or land whether such support be natural or otherwise.
- 2.4 Elevator liability (including escalators, hoists and similar devices).
- 2.5 Contractor's Protective Liability
- 2.6 Contractual and Assumed Liabilities un this contact.
- 2.7 Completed Operations Liability – The insurance, including all aspects of this Part II of these Insurance Conditions shall continue for a period of at least one (1) year beyond the date of the Departmental Representative's Final Certificate of Completion for the Completed Operations.
- 2.8 Cross Liability – The Clause shall be written as follows:

Cross Liability – The insurance as is afforded by this policy shall apply in respect to any claim or action brought against any one Insured by any other Insured. The coverage shall apply in the same manner and to the same extent as though a separate policy had been issued to each Insured. The inclusion herein of more than one Insured shall not increase the limit of the Insurer's liability.

- 2.9 Severability of Interests – The Clause shall be written as follows:

Severability of Interests – This policy, subject to the limits of liability stated herein, shall apply separately to each Insured in the same manner and to the same extent as if a separate policy had been issued to each. The inclusion herein of more than one insured shall not increase the limit of the Insurer's liability.

**CGL 3 Additional Exposures
(02/12/03)**

The policy shall either include or be endorsed to include the following exposures of hazards if the Work is subject thereto:

- 3.1 Blasting
- 3.2 Pile driving and calsson work
- 3.3 Underpinning
- 3.4 Risks associated with the activities of the Contractor on an active airport



- 3.5 Radioactive contamination resulting from the use of commercial isotopes
- 3.6 Damage to the portion of an existing building beyond that directly associated with an addition, renovation or installation contract.
- 3.7 Marine risks associated with the contraction of piers, wharves and docks.

**CGL 4 Insurance Proceeds
(01/10/94)**

Insurance Proceeds from this policy are usually payable directly to a Claimant/Third Party.

**CGL 5 Deductible
(02/12/03)**

This policy shall be issued with a deductible amount of not more than \$10,000 per occurrence applying to Property Damage claims only.

**PART III
BUILDER'S RISK – INSTALLATION FLOATER – ALL RISKS**

**BR 1 Scope of Policy
(01/10/94)**

The policy shall be written on an "All Risks" basis granting coverages similar to those provided by the forms known and referred to in the insurance industry as "Builder's Risk Comprehensive Form" or "Installation Floater – All Risks".

**BR 2 Property Insured
(01/10/94)**

The property insured shall include:

- 2.1 The Work and all property, equipment and materials intended to become part of the finished Work at the site of the project while awaiting, during and after installation, erection or construction including testing.
- 2.2 Expenses incurred in the removal from the construction site of debris of the property insured, including demolition of damaged property, de-icing and dewatering, occasioned by loss, destruction or damage to such property and in respect of which insurance is provided by this policy.

**BR 3 Insurance Proceeds
(01/10/94)**

- 3.1 Insurance proceeds from this policy are payable in accordance with GC28 of the General Conditions "C" of the contract.
- 3.2 This policy shall provide that the proceeds thereof are payable to Her Majesty or as the Minister may direct.



- 3.3 The Contractor shall do such things and execute such documents as are necessary to effect payment of the proceeds.

BR 4 Amount of Insurance
(01/10/94)

The amount of insurance shall not be less than the sum of the contract value plus the declared value (if any) set forth in the contract documents of all material and equipment supplied by Her Majesty at the site of the project to be incorporated into and form part of the finished Work.

BR 5 Deductible
(02/12/03)

The Policy shall be issued with a deductible amount of not more than \$10,000.

BR 6 Subrogation
(01/10/94)

The following Clause shall be included in the policy:

"All rights of subrogation or transfer of rights are hereby waived against any corporation, firm, individual or other interest, with respect to which, insurance is provided by this policy".

BR 7 Exclusion Qualifications
(01/10/94)

The policy may be subject to the standard exclusions but the following qualifications shall apply:

- 7.1 Faulty materials, workmanship or design may be excluded only to the extent of the cost of making good thereof and shall not apply to loss or damage resulting therefrom.
- 7.2 Loss or damage caused by contamination by radioactive material may be excluded except for loss or damage resulting from commercial isotopes used for industrial measurements, inspection, quality control radiographic or photographic use.
- 7.3 Use and occupancy of the project or any part of section thereof shall be permitted where such use and occupancy is for the purpose for which the project is intended upon completion.



INSURER'S CERTIFICATE OF INSURANCE

(TO BE COMPLETED BY INSURER (NOT BOKER) AND DELIVERD TO NATIONAL RESEARCH COUNCIL CANADA WITH 30 DAYS FOLLOWING ACCEPTANCE OF TENDER)

CONTRACT

DESCRIPTION OF WORK	CONTRACT NUMBER	AWARD DATE
LOCATION		

INSURER

NAME
ADDRESS

BROKER

NAME
ADDRESS

INSURED

NAME OF CONTRACTOR
ADDRESS

ADDITIONAL INSURED

HER MAJESTY THE QUEEN IN RIGHT OF CANADA AS REPRESENTED BY THE NATIONAL RESEARCH COUNCIL CANADA

THIS DOCUENT CERTIFIES THAT THE FOLLOWING POLICES OF INSURANCE ARE AT PRESENT IN FORCE COVERING ALL OPERATIONS OF THE INSURE IN CONNECTION WITH THE CONTRACT MADE BETWEEN THE NAMED INSURED AND THE NATIONAL RESEARCH COUNCIL CANADA AND IN ACCORDANCE WITH THE INSURANCE CONDITIONS "E"

POLICY					
TYPE	NUMBER	INCEPTION DATE	EXPIRY DATE	LIMITS OF LIABILITY	DEDUCTIBLE
COMMERCIAL GENERAL LIABILITY					
BUILDERS RISK "AL RISKS"					
INSTALLATION FLOATER "ALL RISKS"					

THE INSURER AGREES TO NOTIFY THE NATIONAL RESEARCH COUNCIL CANADA IN WRITING 30 DAYS PRIOR TO ANY MATERIAL CHANGE IN OR CANCELLATION OF ANY POLICY OR COVERAGE SPECIFICALLY RELATED TO THE CONTRACT

NAME OF INSURER'S OFFICER OR AUTHORIZED EMPLOYEE	SIGNATURE	DATE
		TELEPHONE NUMBER:

ISSUANCE OF THIS CERTIFIATE SHALL NOT LIMIT OR RESTRICT THE RIGHT OF THE NATIONAL RESEARCH COUNCIL CANADA TO REQUEST AT ANY TIME DUPLICATE COPIES OF SAID INSURANCE POLICIES



CS1 Obligation to provide Contract Security

- 1.1 The Contractor shall, at the Contractor's own expense, provide one or more of the forms of contract security prescribed in CS2.
- 1.2 The Contractor shall deliver to the Departmental Representative the contract security referred to in CS1.1 within 14 days after the date that the Contractor receives notice that the Contractor's tender or offer was accepted by Her Majesty.

CS2 Prescribed Types and Amounts of Contract Security

- 2.1 The Contractor shall deliver to the Departmental Representative pursuant to CS1
 - 2.1.1 a performance bond and a labour and material payment bond each in an amount that is equal to not less than 50% of the contract amount referred to in the Articles of Agreement, or
 - 2.1.2 a labour and material payment bond in an amount that is equal to not less than 50% of the contract amount referred to in the Articles of Agreement, and a security deposit in an amount that is equal to
 - 2.1.2.1 not less than 10% of the contract amount referred to in the Articles of Agreement where that amount does not exceed \$250,000, or
 - 2.1.2.2 \$25,000 plus 5% of the part of the contract amount referred to in the Articles of Agreement that exceeds \$250,000, or
 - 2.1.3 a security deposit in an amount prescribed by CS2.12 plus an additional amount that is equal to 10% of the contract amount referred to in the Articles of Agreement.
- 2.2 A performance bond and a labour and material payment bond referred to in CS2.1 shall be in a form and be issued by a bonding or surety company that is approved by Her Majesty.
- 2.3 The amount of a security deposit referred to in CS2.1.2 shall not exceed \$250,000 regardless of the contract amount referred to in the Articles of Agreement.
- 2.4 A security deposit referred to in CS2.1.2 and CS2.1.3 shall be in the form of
 - 2.4.1 a bill of exchange made payable to the Receiver General of Canada and certified by an approved financial institution or drawn by an approved financial institution on itself, or
 - 2.4.2 bonds of or unconditionally guaranteed as to principal and interest by the Government of Canada.
- 2.5 For the purposes of CS2.4
 - 2.5.1 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, and

- 2.5.2 If a bill of exchange is certified by a financial institution other than a chartered bank then it must be accompanied by a letter or stamped certification confirming that the financial institution is in at least one of the categories referred to in CS2.5.3
- 2.5.3 an approved financial institution is
- 2.5.3.1 any corporation or institution that is a member of the Canadian Payments Association,
 - 2.5.3.2 a corporation that accepts deposits that are insured by the Canada Deposit Insurance Corporation or the Régie de l'assurance-dépôts du Québec to the maximum permitted by law,
 - 2.5.3.3 a credit union as defined in paragraph 137(6)(b) of the *Income Tax Act*,
 - 2.5.3.4 a corporation that accepts deposits from the public, if repayment of the deposit is guaranteed by Her Majesty in right of a province, or
 - 2.5.3.5 The Canada Post Corporation.
- 2.5.4 the bonds referred to in CS2.4.2 shall be
- 2.5.4.1 made payable to bearer, or
 - 2.5.4.2 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
 - 2.5.4.3 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, and
 - 2.5.4.4 provided on the basis of their market value current at the date of the contract.



Government of Canada
Gouvernement du Canada

Contract Number / Numéro du contrat

Security Classification / Classification de sécurité

**SECURITY REQUIREMENTS CHECK LIST (SRCL)
LISTE DE VÉRIFICATION DES EXIGENCES RELATIVES À LA SÉCURITÉ (LVERS)**

PART A - CONTRACT INFORMATION / PARTIE A - INFORMATION CONTRACTUELLE		
1. Originating Government Department or Organization / Ministère ou organisme gouvernemental d'origine		2. Branch or Directorate / Direction générale ou Direction
National Research Council		ASPM/SAGI
3. a) Subcontract Number / Numéro du contrat de sous-traitance		3. b) Name and Address of Subcontractor / Nom et adresse du sous-traitant
4. Brief Description of Work / Brève description du travail IMI, Boucherville Portes et vitrages neufs		
5. a) Will the supplier require access to Controlled Goods? Le fournisseur aura-t-il accès à des marchandises contrôlées?		<input checked="" type="checkbox"/> No / Non <input type="checkbox"/> Yes / Oui
5. b) Will the supplier require access to unclassified military technical data subject to the provisions of the Technical Data Control Regulations? Le fournisseur aura-t-il accès à des données techniques militaires non classifiées qui sont assujetties aux dispositions du Règlement sur le contrôle des données techniques?		<input checked="" type="checkbox"/> No / Non <input type="checkbox"/> Yes / Oui
6. Indicate the type of access required / Indiquer le type d'accès requis		
6. a) Will the supplier and its employees require access to PROTECTED and/or CLASSIFIED information or assets? Le fournisseur ainsi que les employés auront-ils accès à des renseignements ou à des biens PROTÉGÉS et/ou CLASSIFIÉS? (Specify the level of access using the chart in Question 7. c) (Préciser le niveau d'accès en utilisant le tableau qui se trouve à la question 7. c)		<input checked="" type="checkbox"/> No / Non <input type="checkbox"/> Yes / Oui
6. b) Will the supplier and its employees (e.g. cleaners, maintenance personnel) require access to restricted access areas? to PROTECTED and/or CLASSIFIED information or assets is permitted. Le fournisseur et ses employés (p. ex. nettoyeurs, personnel d'entretien) auront-ils accès à des zones d'accès restreintes? L'accès à des renseignements ou à des biens PROTÉGÉS et/ou CLASSIFIÉS n'est pas autorisé.		No access <input type="checkbox"/> No / Non <input checked="" type="checkbox"/> Yes / Oui
6. c) Is this a commercial courier or delivery requirement with no overnight storage? S'agit-il d'un contrat de messagerie ou de livraison commerciale sans entreposage de nuit?		<input checked="" type="checkbox"/> No / Non <input type="checkbox"/> Yes / Oui
7. a) Indicate the type of information that the supplier will be required to access / Indiquer le type d'information auquel le fournisseur devra avoir accès		
Canada <input checked="" type="checkbox"/>	NATO / OTAN <input type="checkbox"/>	Foreign / Étranger <input type="checkbox"/>
7. b) Release restrictions / Restrictions relatives à la diffusion		
No release restrictions / Aucune restriction relative à la diffusion <input checked="" type="checkbox"/>	All NATO countries / Tous les pays de l'OTAN <input type="checkbox"/>	No release restrictions / Aucune restriction relative à la diffusion <input type="checkbox"/>
Not releasable / À ne pas diffuser <input type="checkbox"/>		
Restricted to: / Limité à : Specify country(ies) / Préciser le(s) pays : <input type="checkbox"/>	Restricted to: / Limité à : Specify country(ies) / Préciser le(s) pays : <input type="checkbox"/>	Restricted to: / Limité à : Specify country(ies) / Préciser le(s) pays : <input type="checkbox"/>
7. c) Level of Information / Niveau d'information		
PROTECTED A / PROTÉGÉ A <input type="checkbox"/>	NATO UNCLASSIFIED <input type="checkbox"/>	PROTECTED A / PROTÉGÉ A <input type="checkbox"/>
PROTECTED B / PROTÉGÉ B <input type="checkbox"/>	NATO NON CLASSIFIÉ <input type="checkbox"/>	PROTECTED B / PROTÉGÉ B <input type="checkbox"/>
PROTECTED C / PROTÉGÉ C <input type="checkbox"/>	NATO RESTRICTED <input type="checkbox"/>	PROTECTED C / PROTÉGÉ C <input type="checkbox"/>
CONFIDENTIAL / CONFIDENTIEL <input type="checkbox"/>	NATO DIFFUSION RESTREINTE <input type="checkbox"/>	CONFIDENTIAL / CONFIDENTIEL <input type="checkbox"/>
SECRET / SECRET <input type="checkbox"/>	NATO CONFIDENTIAL <input type="checkbox"/>	SECRET / SECRET <input type="checkbox"/>
TOP SECRET / TRÈS SECRET <input type="checkbox"/>	NATO CONFIDENTIEL <input type="checkbox"/>	TOP SECRET / TRÈS SECRET <input type="checkbox"/>
TOP SECRET (SIGINT) / TRÈS SECRET (SIGINT) <input type="checkbox"/>	NATO SECRET <input type="checkbox"/>	TOP SECRET (SIGINT) / TRÈS SECRET (SIGINT) <input type="checkbox"/>
	NATO SECRET <input type="checkbox"/>	
	COSMIC TOP SECRET <input type="checkbox"/>	
	COSMIC TRÈS SECRET <input type="checkbox"/>	



Contract Number / Numéro du contrat
Security Classification / Classification de sécurité

PART A (continued) / PARTIE A (suite)

8. Will the supplier require access to PROTECTED and/or CLASSIFIED COMSEC Information or assets?
Le fournisseur aura-t-il accès à des renseignements ou à des biens COMSEC désignés PROTÉGÉS et/ou CLASSIFIÉS? No / Non Yes / Oui
If Yes, indicate the level of sensitivity:
Dans l'affirmative, indiquer le niveau de sensibilité :

9. Will the supplier require access to extremely sensitive INFOSEC Information or assets?
Le fournisseur aura-t-il accès à des renseignements ou à des biens INFOSEC de nature extrêmement délicate? No / Non Yes / Oui

Short Title(s) of material / Titre(s) abrégé(s) du matériel :
Document Number / Numéro du document :

PART B - PERSONNEL (SUPPLIER) / PARTIE B - PERSONNEL (FOURNISSEUR)

10. a) Personnel security screening level required / Niveau de contrôle de la sécurité du personnel requis

- | | | | |
|---|---|---|--|
| <input checked="" type="checkbox"/> RELIABILITY STATUS
COTE DE FIABILITÉ | <input type="checkbox"/> CONFIDENTIAL
CONFIDENTIEL | <input type="checkbox"/> SECRET
SECRET | <input type="checkbox"/> TOP SECRET
TRÈS SECRET |
| <input type="checkbox"/> TOP SECRET-SIGINT
TRÈS SECRET - SIGINT | <input type="checkbox"/> NATO CONFIDENTIAL
NATO CONFIDENTIEL | <input type="checkbox"/> NATO SECRET
NATO SECRET | <input type="checkbox"/> COSMIC TOP SECRET
COSMIC TRÈS SECRET |
| <input type="checkbox"/> SITE ACCESS
ACCÈS AUX EMPLACEMENTS | | | |

Special comments:
Commentaires spéciaux :

NOTE: If multiple levels of screening are identified, a Security Classification Guide must be provided.
REMARQUE: Si plusieurs niveaux de contrôle de sécurité sont requis, un guide de classification de la sécurité doit être fourni.

10. b) May unscreened personnel be used for portions of the work?
Du personnel sans autorisation sécuritaire peut-il se voir confier des parties du travail? No / Non Yes / Oui
If Yes, will unscreened personnel be escorted?
Dans l'affirmative, le personnel en question sera-t-il escorté? No / Non Yes / Oui

PART C - SAFEGUARDS (SUPPLIER) / PARTIE C - MESURES DE PROTECTION (FOURNISSEUR)

INFORMATION / ASSETS / RENSEIGNEMENTS / BIENS

11. a) Will the supplier be required to receive and store PROTECTED and/or CLASSIFIED Information or assets on its site or premises?
Le fournisseur sera-t-il tenu de recevoir et d'entreposer sur place des renseignements ou des biens PROTÉGÉS et/ou CLASSIFIÉS? No / Non Yes / Oui

11. b) Will the supplier be required to safeguard COMSEC Information or assets?
Le fournisseur sera-t-il tenu de protéger des renseignements ou des biens COMSEC? No / Non Yes / Oui

PRODUCTION

11. c) Will the production (manufacture, and/or repair and/or modification) of PROTECTED and/or CLASSIFIED material or equipment occur at the supplier's site or premises?
Les installations du fournisseur serviront-elles à la production (fabrication et/ou réparation et/ou modification) de matériel PROTÉGÉ et/ou CLASSIFIÉ? No / Non Yes / Oui

INFORMATION TECHNOLOGY (IT) MEDIA / SUPPORT RELATIF À LA TECHNOLOGIE DE L'INFORMATION (TI)

11. d) Will the supplier be required to use its IT systems to electronically process, produce or store PROTECTED and/or CLASSIFIED Information or data?
Le fournisseur sera-t-il tenu d'utiliser ses propres systèmes informatiques pour traiter, produire ou stocker électroniquement des renseignements ou des données PROTÉGÉS et/ou CLASSIFIÉS? No / Non Yes / Oui

11. e) Will there be an electronic link between the supplier's IT systems and the government department or agency?
Disposera-t-on d'un lien électronique entre le système informatique du fournisseur et celui du ministère ou de l'agence gouvernementale? No / Non Yes / Oui



Contract Number / Numéro du contrat
Security Classification / Classification de sécurité

PART C - (continued) / PARTIE C - (suite)

For users completing the form manually use the summary chart below to indicate the category(ies) and level(s) of safeguarding required at the supplier's site(s) or premises.
 Les utilisateurs qui remplissent le formulaire manuellement doivent utiliser le tableau récapitulatif ci-dessous pour indiquer, pour chaque catégorie, les niveaux de sauvegarde requis aux installations du fournisseur.

For users completing the form online (via the Internet), the summary chart is automatically populated by your responses to previous questions.
 Dans le cas des utilisateurs qui remplissent le formulaire en ligne (par Internet), les réponses aux questions précédentes sont automatiquement saisies dans le tableau récapitulatif.

SUMMARY CHART / TABLEAU RÉCAPITULATIF

Category / Catégorie	PROTECTED / PROTÉGÉ			CLASSIFIED / CLASSIFIÉ			NATO				COMSEC							
	A	B	C	CONFIDENTIAL / CONFIDENTIEL	SECRET	TOP SECRET / TRÈS SECRET	NATO RESTRICTED / NATO DIFFUSION RESTREINTE	NATO CONFIDENTIAL / NATO CONFIDENTIEL	NATO SECRET	COSMIC TOP SECRET / COSMIC TRÈS SECRET	PROTECTED / PROTÉGÉ			CONFIDENTIAL / CONFIDENTIEL	SECRET	TOP SECRET / TRÈS SECRET		
											A	B	C					
Information / Assets / Renseignements / Biens	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Production	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
IT Media / Support TI	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
IT Link / Lien électronique	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

12. a) Is the description of the work contained within this SRCL PROTECTED and/or CLASSIFIED?
 La description du travail visé par la présente LVERS est-elle de nature PROTÉGÉE et/ou CLASSIFIÉE? No / Non Yes / Oui

If Yes, classify this form by annotating the top and bottom in the area entitled "Security Classification".
 Dans l'affirmative, classifiez le présent formulaire en indiquant le niveau de sécurité dans la case intitulée « Classification de sécurité » au haut et au bas du formulaire.

12. b) Will the documentation attached to this SRCL be PROTECTED and/or CLASSIFIED?
 La documentation associée à la présente LVERS sera-t-elle PROTÉGÉE et/ou CLASSIFIÉE? No / Non Yes / Oui

If Yes, classify this form by annotating the top and bottom in the area entitled "Security Classification" and indicate with attachments (e.g. SECRET with Attachments).
 Dans l'affirmative, classifiez le présent formulaire en indiquant le niveau de sécurité dans la case intitulée « Classification de sécurité » au haut et au bas du formulaire et indiquez qu'il y a des pièces jointes (p. ex. SECRET avec des pièces jointes).



Government of Canada
Gouvernement du Canada

Contract Number / Numéro du contrat
Security Classification / Classification de sécurité

PART D - AUTHORIZATION / PARTIE D - AUTORISATION			
13. Organization Project Authority / Chargé de projet de l'organisme			
Name (print) - Nom (en lettres moulées) Robert Kilpatrick		Title - Titre Manager Facilities Engineering Unit	Signature
Telephone No. - N° de téléphone 613-991-5588	Facsimile No. - N° de télécopieur 613-957-9828	E-mail address - Adresse courriel Robert.Kilpatrick@nrc-cnrc.gc.ca	Date 09 juillet 2013
14. Organization Security Authority / Responsable de la sécurité de l'organisme			
Name (print) - Nom (en lettres moulées) Charlotte Carrier		Title - Titre Controlled Goods and Contracts Security Coordinator	Signature
Telephone No. - N° de téléphone (613) 993-8956	Facsimile No. - N° de télécopieur (613) 990-0946	E-mail address - Adresse courriel Charlotte.Carrier@nrc-cnrc.gc.ca	Date 11 Jul 2013
15. Are there additional instructions (e.g. Security Guide, Security Classification Guide) attached? Des instructions supplémentaires (p. ex. Guide de sécurité, Guide de classification de la sécurité) sont-elles jointes?			<input checked="" type="checkbox"/> No / Non <input type="checkbox"/> Yes / Oui
16. Procurement Officer / Agent d'approvisionnement			
Name (print) - Nom (en lettres moulées) MARC BEDARD		Title - Titre Senior Contracting Officer	Signature
Telephone No. - N° de téléphone 613 993-2274	Facsimile No. - N° de télécopieur	E-mail address - Adresse courriel	Date 15/7/13
17. Contracting Security Authority / Autorité contractante en matière de sécurité			
Name (print) - Nom (en lettres moulées)		Title - Titre	Signature
Telephone No. - N° de téléphone	Facsimile No. - N° de télécopieur	E-mail address - Adresse courriel	Date