

NRC·CMRC

*Administrative
Services
and Property
Management*

CMRC·NRC

*Services
administratifs
et gestion de
l'immobilier*

SPECIFICATION

SOLICITATION #: 14-22065

BUILDING: SAS
110 Gymnasium Place
Saskatoon, SK

PROJECT: SAS – Elevator Upgrades

PROJECT #: SAS-5214-05-01

Date: October 2014



National Research
Council Canada

Conseil national
de recherches Canada

Canada

SPECIFICATION

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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)

Construction Tender Form

Project Identification *SAS - ELEVATOR UPGRADES*

Tender No.: *14-22065*

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.

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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 servives 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 from 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 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

BUYANDELL NOTICE

SAS Elevator Upgrades

The National Research Council Canada, 110 Gymnasium Place, Saskatoon, SK has a requirement for a project that includes:

To upgrade two existing elevators to current standards. One elevator is a traction elevator and one is an hydraulic elevator. Traction elevator work includes: new door operators, new controllers, new hoist motor, new governor, new cables and cable guards, new car and hall signalization, new flooring. Hydraulic elevator work includes: new door operators, new hydraulic controllers, new hydraulic power unit, new hydraulic cylinder, new car and hall signalization, new flooring, new lighting.

1. GENERAL:

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. SITE VISIT:

It is optional that the bidder attends one of the site visits at the designated date and time.

The site visits will be held on October 22nd and October 23rd , 2014 at **9:00** . Meet Bill Dean at SAS Building , 110 Gymnasium Place, Saskatoon, SK.

3. TENDER CLOSING DATE:

Tender closing date is October 30th , 2014 at 14:00.

4. TENDER RESULTS

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

5. SECURITY REQUIREMENT FOR CANADIAN CONTRACTORS

5.1 MANDATORY SECURITY REQUIREMENT:

.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.

6.0 WSIB (WORKPLACE SAFETY AND INSURANCE BOARD)

.1 All Bidders must provide a valid WSIB certificate with their Tender or prior to contract award.

7.0 OFFICE OF THE PROCUREMENT OMBUDSMAN

.1 Dispute Resolution Services

The parties understand that the Procurement Ombudsman appointed pursuant to Subsection 22.1(1) of the *Department of Public Works and Government Services Act* will, on request or consent of the parties to participate in an alternative dispute resolution process to resolve any dispute between the parties respecting the interpretation or application of a term and condition of this contract and their consent to bear the cost of such process, provide to the parties a proposal for an alternative dispute resolution process to resolve their dispute. The Office of the Procurement Ombudsman may be contacted by telephone at 1-866-734-5169 or by e-mail at boa.opo@boa-opo.gc.ca.

.2 Contract Administration

The parties understand that the Procurement Ombudsman appointed pursuant to Subsection 22.1(1) of the *Department of Public Works and Government Services Act* will review a complaint filed by [*the supplier or the contractor or the name of the entity awarded this contract*] respecting administration of this contract if the requirements of Subsection 22.2(1) of the *Department of Public Works and Government Services Act* and Sections 15 and 16 of the *Procurement Ombudsman Regulations* have been met, and the interpretation and application of the terms and conditions and the scope of the work of this contract are not in dispute. The Office of the Procurement Ombudsman may be contacted by telephone at 1-866-734-5169 or by e-mail at boa.opo@boa-opo.gc.ca.

.3 The Office of the Procurement Ombudsman (OPO) was established by the Government of Canada to provide an independent avenue for suppliers to raise complaints regarding the award of contracts under \$25,000 for goods and under \$100,000 for services. You have the option of raising issues or concerns regarding the solicitation, or the award resulting from it, with the OPO by contacting them by telephone at 1-866-734-5169 or by e-mail at boa.opo@boa-opo.gc.ca. You can also obtain more information on the OPO services available to you at their website at www.opo-boa.gc.ca.

The Departmental Representative or his designate for this project is: **Bill Dean**
Telephone: **306 975-4198**

Contracting Authority for this project is: **Marc Bédard** marc.bedard@nrc-cnrc.gc.ca
Telephone: **613 993-2274**

INSTRUCTIONS TO BIDDERS

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
Administrative Services and Property Management Branch
110 Gymnasium Place
SAS Building
Saskatoon, SK
S7N 0W9

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**

- 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 de convention

Contrat de construction – Articles de convention
(23/01/2002)

- A1 Contrat
- A2 Description des travaux et date d'achèvement
- A3 Prix du contrat
- A4 Adresse de l'entrepreneur
- A5 Tableau des prix unitaires



Articles de convention

Les présents Articles de convention faits en double le jour de

Entre

Sa Majesté la Reine, du chef du Canada (ci-après appelé " Sa Majesté") représentée par le Conseil National recherches du Canada. (ci-après appelé " le Conseil")

Et

(ci-après appelé "l'Entrepreneur")

Font foi que sa Majesté et l'Entrepreneur ont établi entre eux les conventions suivantes:

A1 Contrats (23/01/2002)

- 1.1 Sous réserve des paragraphes A1.4 and A1.5, les documents constituant le contrat passé entre Sa Majesté et l'Entrepreneur (ci-après appelé le Contrat) sont:
- 1.1.1 les présents Articles de convention;
 - 1.1.2 les documents intitulés "Plans et devis" et annexés aux présentes sous la cote "A";
 - 1.1.3 le document intitulé "Modalités de paiement" et annexé aux présentes sous la cote "B";
 - 1.1.4 le document intitulé, "Conditions générales" et annexé aux présentes sous la cote "C";
 - 1.1.5 le document intitulé, "Conditions de travail" et annexé aux présentes sous la cote "D";
 - 1.1.6 le document intitulé, "Conditions d'assurance" et annexé aux présentes sous la cote "E";
 - 1.1.7 le document intitulé, "Conditions de garantie du contrat" et annexé aux présentes sous la cote "F"; et
 - 1.1.8 toute modification au Contract en accord avec le Conditions générales.
 - 1.1.9 le document intitulé "Échelles de juste salaire pour les contrats fédéraux de construction", désigné dans le présent document par l'appellation "Échelles de justes salaires".



Articles de Convention

1.2 Le Conseil désigne _____ de SAGI (Services administratifs et gestion de l'immobilier du CNRC, du gouvernement du Canada, Ingénieur aux fins du Contrat et à toute fin, y compris aux fins accessoires, l'adresse de l'Ingénieur est réputée être:

1.3 Dans le Contrat

1.3.1 "Entente à prix fixe" désigne la partie du Contrat où il est stipulé qu'un paiement global sera fait en contrepartie de l'exécution des travaux auxquels elle se rapporte; et

1.3.2 "Entente à prix unitaire" désigne la partie du Contrat où il est stipulé que le produit d'un prix multiplié par un nombre d'unité de mesurage d'une catégorie sera versé à titre de paiement pour l'exécution des travaux visés par cette entente.

1.4 Toute dispositions du Contrat qui s'applique expressément et seulement à une Entente à prix unitaire ne s'applique à aucune partie des travaux qui relève de l' Entente à prix fixe.

1.5 Toute dispositions du Contrat qui s'applique expressément et seulement à une Entente à prix fixe ne s'applique à aucune partie des travaux qui relève de l' Entente à prix Unitaire.

A2 Description des travaux et date d'achèvement

(23/01/2002)

2.1 Entre la date des presentes Articles de convention et le _____ jour de _____, l'Entrepreneur exécute, avec soin et selon le règles de l'art, à l'endroit et de la manière indiquées, les travaux suivants,

plus particulièrement décrits dans les Plans et devis.



Articles de Convention

A3 Prix du marché (23/01/2002)

- 3.1 Sous réserve de toute addition, soustraction, déduction, réduction ou compensation prévue en vertu du Contrat, Sa Majesté, aux dates et de la manière énoncées ou mentionnées dans les Modalités de paiement, paie à l'Entrepreneur:
- 3.1.1 la somme de \$ (TPS/TVH en sus), en considération et l'exécution des travaux ou des parties de travaux à laquelle s'applique l'Entente à prix fixe, et
- 3.1.2 une somme égale à l'ensemble des produits du nombre d'unités de mesurage de chaque catégorie de travail, d'outillage ou de matériaux indiqué dans le Certificat définitif de mesurage mentionné ou paragraphe CG44.8, ce nombre d'unités étant multiplié selon le cas par le prix de chaque unité indiquée dans le Tableau des prix unitaires relativement à l'exécution des travaux ou des parties de travaux qui ont fait l'objet d'une Entente à prix unitaire.
- 3.2 Pour le gouverne de l' Entrepreneur et des personnes chargées de l'exécution du Contrat au nom de sa Majesté, mais sans toutefois comporter une garantie ou un engagement de quelque nature de la part de l'une ou l'autre partie, il est estimé que la somme totale payable par Sa Majesté à l'Entrepreneur pour la partie des travaux qui a fait l'objet d'une Entente à prix unitaire, sera d'environ N/A \$
- 3.3 L'alinéa A3.1.1 ne s'applique qu'à une Entente à prix fixe.
- 3.4 L'alinéa A3.1.2 et le paragraphe A3.2 ne s'appliquent qu'à une Entente à prix unitaire.

A4 Adresse de L'Entrepreneur (23/01/2002)

- 4.1 Aux fins du Contract, y compris les fins accessoires, l'adresse de l'Entrepreneur est réputé être:



Articles de Convention

A5 Tableau des prix unitaires (23/01/2002)

5.1 Il est convenu entre Sa Majesté et l'Entrepreneur que le tableau ci-après est le Tableau des prix unitaires pour le Contrat:

Colonne 1 Postes	Colonne 2 Catégorie de travail outillage ou de matériaux	Colonne 3 Unité de mesurage	Colonne 4 Quantité totale estimative	Colonne 5 Prix unitaire	Colonne 6 Prix total estimatif
		N/A			

5.2 Le Tableau des prix unitaires présenté au paragraphe A5.1 décrit la partie des travaux visée par l'Entente à prix unitaire.

5.3 La partie des travaux qui n'est pas décrite dans le Tableau des prix unitaires mentionné au paragraphe A5.2 est la partie des travaux visée par l'Entente à prix fixe.

Revise Section 01 78 00 as follows:

- 1.1.1 Three copies of maintenance and operating manuals shall be provided prior to substantial completion of this work. One shall be in electronic format.

Revise Section 14 21 00 as follows:

Add 1.1.9 New rope gripper

Add 1.1.10 New pit steel, buffer stands and buffers on elevator car and counterweight.

Add 1.3.4

1.3.4 Electrical

1. Electrical work will comply with Current Canadian Electrical Code

Delete 1.4.1 and substitute:

1. Existing capacity of 4000 Lbs to be retained.

Delete 1.4.2 and substitute:

1. Existing speed of 75 FPM to be retained.

Add 1.12.3

1.12.3 The existing elevator is on emergency power. All new components shall meet a minimum of the B44 2007 requirements for emergency power.

Add 1.13

1.13 Authority having Jurisdiction

1. Contractor to provide all submission documents to TSASK, all applicable inspection costs shall be included in the bid price.

Add 1.14

1.14 Out of scope services provided by owner:

1. Electrical upgrade to machine room lighting and GFI receptacle.
2. Electrical upgrade to elevator pit lighting and GFI receptacle.
3. Fire Alarm upgrade to meet current code requirements.
4. Generator signal from electrical.

Add 1.15

1.15 Out of scope services provided by contractor:

1. Provide access to car top when not on site for out of scope work to be completed.
2. Position elevator car when not on site for out of scope work to be completed.

Delete 2.6.1 and substitute with:

2.6.1 Roller Guides

1. Supply and install new car roller guides that meet service requirements.
2. Supply and install new counterweight roller guides that meet the service requirements.

Delete 2.7.2 and substitute with:

2.7.2 Shackles

1. Supply and install new wedge clamp fastenings on car and counterweight.

Delete 2.8 and substitute with:

2.8 Compensating Devices

1. If required supply and install new compensating cable.
2. If compensation is required supply and install a new sway less dampening device.
3. If compensation is required supply and install a pull out switch.

Delete 2.10 and substitute with:

2.10 Voltage Controller

1. Provide a complete design and components engineered to meet the service requirements of the elevator. The system shall utilize a Variable Voltage Variable Frequency drive, new AC motor, adaptor plate for the existing machine.
2. Components shall be from the manufactured standard product line and have a proven track history within in the industry for at least 5 years.

Delete 2.13 Anti-Nuisance Device

Add 2.15.2:

Car Weight

1. The contractor shall weigh the existing car to verify that the car weight match's car data plate and/or original drawings.
2. The contractor shall provide confirmation that the addition of, but not limited to, aluminum checker plate flooring, car top handrail and new components to be added during the modernization, will not exceed the 5% additional weight allowed by B44.
3. The contractor shall notify the owner and consultant if the modernization will exceed the 5% allowable by code within 30 days of the execution of the modernization contract. The owner and consultant will then notify the contractor on the course of action to remedy the situation. If notification is not received within 30 days of the execution of the contract, the contractor is responsible for all costs associated with the weight increase.

Delete 2.16 and substitute with:

2.16 Door Operator

1. Supply and install (2) new closed loop high performance door operators or consultant approved equivalent.
2. ½ or ¾ Hp motor and heavy duty sprocket, chain, belt and sheaves.
3. Closed loop regulated speed performance.

4. On board keypad programming.
5. Optical cams with LED indicators.
6. Test switch for open, close, and nudging.
7. Door operator shall be rated for heavy doors.
8. Supply and install new clutch, pickup rollers, interlocks, zone locking and mounting plates or consultant approved equivalent.
9. Supply and install new car gate switch.
10. Supply and install door zone locking device which will mechanically lock the car door when the elevator is out of the door zone as per B44.

Delete 2.17 and substitute with:

2.17 Door Protection

1. Supply and install a new Infrared 3D system on each elevator car door which shall contain the following features:
 - a. Comply with ADA Act;
 - b. Colored red/green indication to highlight door movement;
 - c. Minimum 154 Beams;
 - d. 120-240VAC Power Input, 18-25 VDC;
 - e. 1828 mm level of highest beam;
 - f. 19mm level of lowest Beam.

Add 2.18

2.18 Hall Jamb

1. Floor tactile mounted on hall jambs shall contain braille markings and floor designation. The tactile lettering shall be 16-51mm and at a height of 1220-1525 mm off of the finished floor.

Add 2.19

2.19 Hall doors

1. Supply and install engineered hall door retainers on the top and bottom of all elevator doors.
2. Replace any hall door rollers show signs of excessive wear, bearings are noisy or are not smooth in operation.
3. Mark all hall doors with the floor level on the inside of the door. The signage shall be a minimum 4" X 4", using a stencil in a legible manner.
4. Replace all car door rollers.
5. Supply and install lunar key access on all floors.
6. Supply and install new Smartork spirators on all hall doors.

Delete 2.20 and substitute with:

2.20 Car Operating Panel

1. Supply and install a new full length #4 brushed stainless steel applied Car Operating Panel. Car Operating Panel to conform to current B44 Code and CAN/CSA B44 – 07 Appendix E.
2. Car Operating Panel shall be installed flush in the return, open on hinges for full access and have keyed locks for access. Tamper proof screws are not allowed.

3. Car buttons shall be vandal proof from the contractor's standard offering. Car push buttons shall be stainless steel with a halo that illuminates blue once activated. All indicators shall be LED. Floor indicator/Braille tags shall be mounted on the left of car call button and shall meet B44 Code and CAN/CSA B44 -07 Appendix – E.
4. Supply door open extended opening button. When activated the car dwell time will be extended by an additional 10 seconds. The dwell time shall be field adjustable between 5 – 20 seconds, or as approved by consultant.
5. Car push buttons shall be blank, no floor indicators or arrows on the button.
6. Door open, door close, alarm and telephone button push buttons shall be stainless steel. The Halo shall illuminate red when pressed.
7. Telephone push button shall be programmed to dial an emergency number supplied by the owner.
8. Supply a Position Indicator, position indicator shall be from the contractor's standard offering. The car position indicator shall be LED illumination, indicating the cars position throughout the hoistway and be of at least 50mm in height.
9. Supply voice annunciation shall include the following:
 - a. A digitized human voice, the volume shall be field adjustable;
 - b. Announce direction of travel upon arrival at floor;
 - c. Announce floor landing upon arrival at floor;
 - d. Announce when nudging is activated;
 - e. Announce when elevator is on fireman's service;
 - f. Announce door closing.
10. Supply and install emergency light in car operating panel. Emergency light shall provide a minimum illumination at the car threshold of 50 lx, measured with the door closed.
11. The Car Operating Panel shall contain a lockable service cabinet which shall contain the following:
 - a. A toggles switch for the cab interior lighting;
 - b. A three position, keyed switch for the cab fan with off, low and high speed removable in all positions;
 - c. Independent service switch;
 - d. Hoistway access enabling switch;
 - e. A 120 volt 15 amp separate circuit GFI receptacle;
 - f. Emergency stop switch;
 - g. Emergency light test switch.
12. The Car Operating Panel shall contain a Fire Service Cabinet which conforms to B44-07 for phase 1 and phase 2 operation.

Delete 2.21 and substitute with:

2.21 Hall Buttons

1. Supply and install new #4 stainless steel hall stations which conform to B44 Code and CAN/CSA B44-07 Appendix E.
2. Hall push buttons shall be vandal proof from the contractor's standard offering. Hall push buttons shall be stainless steel with a halo that illuminates green for the up direction and red for the down direction.

3. The rear hall button on the loading dock level shall have an additional door open extended time which shall increase the hall dwell time by 10 seconds. The dwell time shall be field adjustable between 5 – 20 seconds, or as approved by consultant.

Add to 2.22

2.22 Hall Position/Direction Indicators

1. Supply and install new #4 stainless steel combination hall position and direction indicators on all floors.
2. Hall position and directions indicators shall be from the contractors standard offering, LED illumination. Final design subject to consultant's approval.

Add 2.23

2.23 Hoistway Access

1. A Hoistway access enabling switch shall be mounted in the service cabinet of the Car Operating Panel.
2. A Hoistway access switch shall be installed in the sight guard of the terminal landings.
3. The travel of the elevator in either direction shall be limited to comply with B44 – 07.

Add 2.24

2.24 Car top Handrail

1. Supply and install an aluminum car top handrail.
2. Supply and install a 4 foot two lamp T8 Fluorescent fixture Supply. The Light shall be a fluorescent weather resistance ceiling fixture, Hazardous location Class 1 Div 2, 17W-60W, surface mount U.S.C.G Accepted U.L. 844, U.L 1598A. The light shall be operated by the light switch in the car top inspection station.

Add 2.25

2.25 Traction Machine

1. Retain the existing traction machine.
2. Refurbish to like new condition.
3. Replace all seals to eliminate oil leakage.
4. Replace gear oil

Add 2.26

2.26 Sheaves

1. Replace counterweight sheave.
2. Refurbish to like new condition all existing sheaves, replace all bearings.

Add 2.27

2.27 Car Top Inspection Station

1. Supply and Install a new Car Top Inspection Station. The Car Top Station shall contain a GFI receptacle and a work light with a light protected from damage.

Add 2.28

2.28 Crosshead Data Plate

1. Provide and install a new crosshead data plate which shall contain:
 - a. Manufacture;
 - b. Date of modernization;
 - c. New car weight;
 - d. Car speed;
 - e. Car capacity.

Add 2.29

2.29 Pit Equipment

1. Supply and install new car and counterweight buffer assemblies. This shall include but not limited to pit steel, buffers stands and buffers.
2. Any exposed steel shall be painted with a minimum 2 coats of rust inhibiting primer and 2 coats of high gloss enamel paint.
3. Car and counterweight buffers are to be ruggedly built and designed to meet ASME A17.1 and C.S.A B44 requirements.
4. Manufacture's label containing buffer stroke and load rating must be installed on each buffer. The label is to be protected during construction and painting to ensure that it remains legible.

Add 2.30

2.30 Pit Ladder

1. Replace existing pit ladder that does not meet current B44 Code.
2. Contractor will supply and install a new pit ladder with code compliant ladder if existing ladder does not meet code.

Add 2.31

2.31 Toe Guard

1. Replace existing toe guards with new code compliant toe guard.

Add 2.32

2.32 Hoistway limit Switches

1. Remove and dispose of all existing limit switches.
2. Install new normal and over travel limit switches mounted off of the guide rail.
3. Limit switches shall be rated for elevator use and be operated by a solid cam mounted to the elevator car.
4. Limit switches shall be permanently attached to a mounting bracket. After commissioning of the elevator the mounting bracket shall be doweled in a minimum of two places.

Add 2.33

2.33 Controller

1. Supply and install a microprocessor controller that meets at a minimum B44 2007.
2. The controller shall be from the contractor's standard offering with at least a five year record of operation in the elevator industry.

3. The controller shall be a non-proprietary, and shall not contain any system disabling maintenance timer or counter, or any other type of system that will make it unable to be maintained by any other elevator company.
4. All diagnostic tools, reset tools, manuals and troubleshooting material required to maintain the elevator shall become property of the owner once the installation has reached substantial completion.

Add 2.34

2.34 Safety Plank

1. Retain and refurbish existing safety plank to like new condition.

Add 2.35

2.35 Traveller

1. Supply and Install new travelling cables. Jacket - Black, 70° C polyvinyl chloride specifically compounded for flexibility and abrasion resistance. The finished cable complies with ANSI/ASTM, UL and CSA standards. It also meets EN or JIS Requirements as needed and the UL VW-1 or UL-1581 and CSA FT1 flame requirements. Operating temperatures range from - 15° C to +70°.
2. Travelling cable must have a minimum of 10% spare conductors in each cable.
3. Traveler shall be continuous from controller to elevator car top. Junction boxes in the hoistway or on the bottom of the elevator car are not allowed.
4. Conductors in the traveler must be a minimum #14 awg and must not be used to power any other equipment. Separate 120 Volt 15 amp circuit only.
5. Traveler must contain at a minimum 2 shielded pairs. Shielded Pairs - 20 AWG insulated conductors, paired together with a short lay twist, shielded with 36 AWG bare copper braid for 85% coverage. They are jacketed with colored, flame-retardant 70° C polyvinyl chloride and comply with international requirements.
6. Traveler must contain a minimum 1 RG6/U Coaxial cable RG6/U Coaxial Cable - Primarily for CCTV applications. 75 ohm, UL listed, CSA certified. Center conductor is 20 AWG stranded copper insulated with cellular polyethylene, wrapped with aluminum tape, braided with tinned copper and jacketed with flame-retardant PVC.

Add 2.37

2.37 Governor

1. Retain and refurbish existing governor, governor rope and idler to like new condition.

Add 2.38

2.38 Counterweight

1. Retain and refurbish existing counterweight. Confirm that existing counterweight is code compliant.
2. Refurbish and clean existing counterweight guard, confirm that it is B44 2007 code compliant.
3. Supply and install additional counterweight biscuits, if required, to balance the system as per contractors engineered submission drawings.

Add 3.5

Barricades

1. Provide safety barricades at all entrances during construction.
2. Barricades shall meet Federal and Saskatchewan OH and S regulations for a hoistway.

Add 3.6

3.6 Painting

1. Apply 2 coats of gray gloss paint to machine room floor.
2. Apply 2 coats of yellow high gloss to car top to indicate refuge area.
3. Apply 2 coats of gray gloss paint to elevator pit floor.
4. Apply 2 coats of yellow anti corrosion paint to pit ladder
5. Apply 2 coats of yellow gloss paint in elevator pit to indicate refuge area.

Add 3.7 Electrical

3.7 Electrical

1. A separate minimum #14 awg bond wire shall be installed in all conduit, flexible metal conduit and wireways. All conduit and wire ways shall be bonded.
2. No run of armoured cable shall exceed 1 metre in length in the machine room, hoistway, elevator pit and car top.
3. Supply and install a junction box mounted on the outside of the controller, the owner shall provide a telephone line to the junction box. The contractor is responsible for the telephone line after the junction box.
4. Hoistway wiring shall be rated at 300 volt minimum #18 awg.

Revise Section 14 24 00 as follows:

Add 1.1.6 Replace existing pit steel, buffer stands and buffers.

Add 1.1.7 Replace jack unit.

Add 1.1.8 Install rupture valve.

Add 1.8 Contractor to provide all submission documents to TSASK, all applicable inspection costs shall be included in the bid price.

Add 1.9 Floor Designation shall be 0,1,2,3 and 4.

Add 1.10

1.10 Out of scope services provided by owner:

1. Electrical upgrade to machine room lighting and GFI receptacle.
2. Electrical upgrade to elevator pit lighting and GFI receptacle.
3. Fire Alarm upgrade to meet current code requirements.
4. Generator signal from electrical.

Add 1.11

1.11 Out of scope services provided by contractor:

1. Provide access to car top when not on site for out of scope work to be completed.
2. Position elevator car when not on site for out of scope work to be completed.

Add 1.12

1.12 Electrical

1. Electrical work will comply with Current Canadian Electrical Code

Add 1.13

1.13 Emergency Power

1. The existing elevator is on emergency power. All new components shall meet a minimum of the B44 2007 requirements for emergency power.

Part 2 Products

Delete 2.1 and substitute:

2.1 Power Pack

1. An engineered motor, pump and valve of the newest technology that has been designed as a complete system.
2. The system will meet B44 2007 code.
3. The power pack shall maintain an output of +/- 5% in the up and down direction. The power pack will maintain this output regardless of the load in the car.
4. The power pack shall be engineered for continuous hydraulic elevator duty.
5. The power pack shall be a submersible type only.
6. The power pack shall be isolated from the floor to prevent noise transfer and be fastened by a minimum of 4 - 3/8 bolts into the concrete.
7. The pump shall be positive displacement, low slip, three screw design and the pump shall be directly connected to the motor.
8. Motor shall be specially designed to operate submerged in oil.
9. A muffler shall be installed in the power pack to reduce the noise of the oil flow.
10. A shut off valve shall be located in the power pack or within 2 feet of the power pack.
11. There shall be a means of checking the oil level in the tank.
12. The control valve shall be located in the tank.
13. A data tag shall be mounted on power unit indicating the value that the relief. Valve is set to at the time of inspection and the date of the test.
14. The control valve shall have a manual release valve that will release oil from the system and return to the tank.
15. The valve shall be set so that the acceleration and deceleration provides a smooth transition from rated speed to stop.
16. Sill to sill level when the car has come to a stop with the door open shall meet B44 code requirements in both the up and down direction.
17. Power Pack shall contain a pressure valve.

Delete 2.2

Delete 2.3 and substitute with:

2.3 Controller

1. Supply and install a microprocessor controller that meets at a minimum B44 2007.
2. Controller operation shall be selective collective automatic operation.
3. The controller shall be from the contractor's standard offering with at least a five year record of operation in the elevator industry.
4. The controller shall be a non-proprietary, and shall not contain any system disabling maintenance timer or counter, or any other type of system that will make it unable to be maintained by any other elevator company.
5. All diagnostic tools, reset tools, manuals and troubleshooting material required to maintain the elevator shall become property of the owner once the installation has reached substantial completion.
6. Controller shall have a soft start motor starter of the latest design.
7. Controller shall meet B44 3.26.3 for anticreep functionality.

Delete 2.4 and substitute with:

2.4 Car Operating Panel

1. Supply and install a new full length #4 brushed stainless steel applied Car Operating Panel. Car Operating Panel to conform to minimum B44 2007 Code and CAN/CSA B44 – 07 Appendix E.
2. Car Operating Panel shall be installed flush in the return, be hinged to open for full access and have keyed locks for access. Tamper proof screws are not allowed.
3. Car buttons shall be vandal proof from the contractor's standard offering. Car push buttons shall be stainless steel with a halo that illuminates blue once activated. All indicators shall be LED. Floor indicator/Braille tags shall be mounted on the left of car call button and shall meet B44 Code and CAN/CSA B44 -07 Appendix – E.
4. Car push buttons shall be blank, no floor indicators or arrows on the button.
5. Door open, door close, alarm and telephone button push buttons shall be stainless steel. The halo shall illuminate red when pressed.
6. Telephone push button shall be programmed to dial an emergency number supplied by the owner.
7. Supply a Position Indicator, position indicator shall be from the contractor's standard offering. The car position indicator shall be LED illumination, indicating the cars position throughout the hoistway and be of at least 50mm in height.
8. Supply voice annunciation shall include the following:
 - a. A digitized human voice, the volume shall be field adjustable;
 - b. Announce direction of travel upon arrival at floor;
 - c. Announce floor landing upon arrival at floor;
 - d. Announce when nudging is activated;
 - e. Announce when elevator is on fireman's service;
 - f. Announce door closing.

9. Supply and install emergency light in car operating panel. Emergency light shall provide a minimum illumination at the car threshold of 50 lx, measured with the door closed.
10. The Car Operating Panel shall contain a lockable service cabinet which shall contain the following:
 - a. A toggles switch for the cab interior lighting;
 - b. A three position, keyed switch for the cab fan with off, low and high speed removable in all positions;
 - c. Independent service switch;
 - d. Hoistway access enabling switch;
 - e. A 120 V 15 Amp separate circuit GFI receptacle;
 - f. Emergency stop switch;
 - g. Emergency light test switch.
11. The Car Operating Panel shall contain a Fire Service Cabinet which conforms to B44-07 for phase 1 and phase 2 operation.
12. Hall position and directions indicators shall be from the contractor's standard offering, LED illumination. Final design subject to consultant's approval.

Delete 2.5 and substitute with:

2.5 Hall Buttons

1. Supply and install new #4 stainless steel hall stations which conform to B44 Code and CAN/CSA B44-07 Appendix E.
2. Hall push buttons shall be vandal proof from the contractor's standard offering. Hall push buttons shall be stainless steel with a halo that illuminates green for the up direction and red for the down direction.
3. Install a hall riser for front and rear landings.

Delete 2.6 and substitute with:

2.6 Hall position/direction indicators

1. Supply and install new #4 stainless steel combination hall position and direction indicators on all floors.
2. Hall position and directions indicators shall be from the contractor's standard offering, LED illumination. Final design subject to consultant's approval.

Delete 2.7 and substitute with:

2.7 Door Protection

1. Supply and install a new Infrared 3D system on each elevator car door which shall contain the following:
 - a. Comply with ADA Act;
 - b. Colored red/green indication to highlight door movement;
 - c. Minimum 154 Beams;
 - d. 120-240VAC Power Input, 18-25 VDC;
 - e. 1850 mm level of highest beam;
 - f. 19mm level of lowest beam.

Delete 2.8

Add 2.9

2.9 Roller Guides

1. Supply and install new car roller guides that meet service requirements.

Add 2.10

2.10 Door Operator

1. Supply and install (2) new closed loop high performance door operators or consultant approved equivalent.
2. ½ or ¾ hp motor and heavy duty sprocket, chain, belt and sheaves.
3. Closed loop regulated speed performance.
4. On board keypad programming.
5. Optical cams with LED indicators.
6. Test switch for open, close, and nudging.
7. Door operator shall be rated for heavy doors.
8. Supply and install new clutch, pickup rollers, interlocks, zone locking and mounting plates or consultant approved equivalent.
9. Supply and install new car gate switch.
10. Supply and install door zone locking device which will mechanically lock the car door when the elevator is out of the door zone as per B44.

Add 2.11

2.11 Elevator doors

1. Supply and install engineered hall door retainers on the top and bottom of all elevator doors.
2. Replace any hall door rollers show signs of excessive wear, bearings are noisy or are not smooth in operation.
3. Mark all hall doors with the floor level on the inside of the door. The signage shall be a minimum 4" X 4", using a stencil in a legible manner.
4. Replace all car door rollers.
5. Supply and install lunar key access on all floors.
6. Supply and install new spirators on all hall doors.

Add 2.12

2.12 Hoistway Access

1. A Hoistway access enabling switch shall be mounted in the service cabinet of the Car Operating Panel.
2. A Hoistway access switch shall be installed in the sight guard of the terminal landings.
3. The travel of the elevator in either direction shall be limited to comply with B44 – 07.

Add 2.13

2.13 Car top Handrail

1. Supply and install an aluminum car top handrail.
2. Supply and install a 4 foot two lamp T8 Fluorescent fixture. The light shall be a fluorescent weather resistance ceiling fixture, hazardous location Class 1 Div 2, 17W-60W, surface mount U.S.C.G Accepted U.L. 844, U.L 1598A. The light shall be operated by the light switch in the car top inspection station.

Add 2.14

2.14 Car Top Inspection Station

1. Supply and install a new car top inspection. The Car Top Inspection Station shall contain a GFI receptacle and a work light, with a wire guard to protect from damage.

Add 2.15

2.15 Crosshead Data Plate

1. Provide and install a new crosshead data plate which shall contain:
 - a. Manufacture;
 - b. Date of modernization;
 - c. New car weight;
 - d. Car speed;
 - e. Car capacity;

Add 2.16

2.16 Pit Equipment

1. Supply and install new car buffers. This shall include but not limited to pit steel, buffers stands and buffers.
2. Any exposed steel shall be painted with a minimum 2 coats of rust inhibiting primer and 2 coats of high gloss enamel paint.
3. Car and counterweight buffers are to be ruggedly built and designed to meet ASME A17.1 and C.S.A B44 requirements.
4. Manufacture's label containing buffer stroke and load rating must be installed on each buffer. The label is to be protected during construction and painting to ensure that it remains legible.

Add 2.17

2.17 Toe Guard

1. Replace existing toe guard with new code compliant toe guard.

Add 2.18

2.18 Hoistway Limit Switches

1. Remove and dispose of all existing limit switches.
2. Install new normal and over travel limit switches mounted off of the guide rail.
3. Limit switches shall be rated for elevator use and be operated by a solid cam mounted to the elevator car.

4. Limit switches shall be permanently attached to a mounting bracket. After commissioning of the elevator the mounting bracket shall be doweled in a minimum of two places.

Add 2.19

2.19 Cylinder Hole

1. Contractor is responsible for the removal of the existing cylinder, piston.
2. Contractor is responsible for all costs associated with the installation of the new jack unit including but not limited to pumper truck, welding and all costs to provide the proper depth for the new PVC.
3. If the soil is found to be contaminated the contract shall be entitled to reimbursement of the cost to properly dispose of the contaminated soil.
4. In the event an unforeseeable issue arises once the existing cylinder has been removed which include but are not limited to a collapse of the culvert, debris in the cylinder hole etc. The contractor shall notify the consultant and owner immediately.
5. Once installation is complete the cylinder hole shall be sealed with 6 inches of concrete.

Add 2.20

2.20 Hydraulic Cylinder

1. Provide a complete engineered single stage in-ground jack assembly which meets the B44 code for the capacity and speed of the installation.
2. Jack assembly shall consist of PVC recovery sheath, casing and piston.
3. Jack assembly shall have a double seal head.
4. A collection point shall be supplied to collect seepage from the packing which meets B44 requirements.

Add 2.21

2.21 Hydraulic Piping

1. Supply and install new hydraulic piping and couplings required to install the new equipment.
2. Supply and install one isolation coupling as per manufactures instructions.
3. Supply and install a rupture valve as per manufactures instructions.
4. Replace all existing hydraulic couplings with new.

Add 2.21

2.21 Hydraulic Oil

1. Recycle existing Hydraulic oil.
2. Replace with a non-petroleum based hydraulic oil.

Add 2.22

2.22 Pit Ladder

1. Pit ladder may be retained if it meets current B44 Code.
2. Contractor will supply and install a new pit ladder with code compliant ladder if existing ladder does not meet code.

3. Retained or new pit ladders shall be painted with 2 coats of yellow enamel paint.

Add 2.23

2.23 Traveller

1. Supply and Install new travelling cables. Jacket - Black, 70° C polyvinyl chloride specifically compounded for flexibility and abrasion resistance. The finished cable complies with ANSI/ASTM, UL and CSA standards. It also meets EN or JIS requirements as needed and the UL VW-1 or UL-1581 and CSA FT1 flame requirements. Operating temperatures range from-15° C to +70°.
2. Travelling cable must have a minimum of 10% spare conductors in each cable.
3. Traveler shall be continuous from controller to elevator car top. Junction boxes in the hoistway or on the bottom of the elevator car are not allowed.
4. Conductors in the traveler must be a minimum #14 awg and must not be used to power any other equipment. Separate 120 Volt 15 amp circuit only.
5. Traveler must contain at a minimum 2 shielded pairs. Shielded pairs - 20 AWG insulated conductors, paired together with a short lay twist, shielded with 36 AWG bare copper braid for 85% coverage. They are jacketed with colored, flame-retardant 70° C polyvinyl chloride and comply with international requirements.
6. Traveler must contain a minimum 1 RG6/U Coaxial cable RG6/U Coaxial Cable - Primarily for CCTV applications. 75 ohm, UL listed, CSA certified. Center conductor is 20 AWG stranded copper insulated with cellular polyethylene, wrapped with aluminum tape, braided with tinned copper and jacketed with flame-retardant PVC.

Add 2.24

2.24 Hall Jamb

1. Floor tactile mounted on hall jambs shall contain braille markings and floor designation. The tactile lettering shall be 16-51mm and at a height of 1220-1525 mm off of the finished floor.

Add 2.25

2.25 Hall doors

1. Supply and install engineered hall door retainers on the top and bottom of all elevator doors.
2. Replace any hall door rollers show signs of excessive wear, bearings are noisy or are not smooth in operation.
3. Mark all hall doors with the floor level on the inside of the door. The signage shall be a minimum 4" X 4", using a stencil in a legible manner.
4. Replace all car door rollers.
5. Supply and install lunar key access on all floors.
6. Supply and install new spirators on all hall doors.

Add 3.6

3.6 Barricades

1. Provide barricades at all entrances.

-
2. Barricades shall meet Federal and Saskatchewan OH and S regulations for a hoistway.

Add 3.7

3.7 Painting

1. Apply 2 coats of gray gloss paint to machine room floor.
2. Apply 2 coats of yellow high gloss to car top to indicate refuge area.
3. Apply 2 coats of gray gloss paint to elevator pit floor.
4. Apply 2 coats of yellow anti corrosion paint to pit ladder
5. Apply 2 coats of yellow gloss paint in elevator pit to indicate refuge area.

Add 3.8

3.8 Electrical

1. A separate minimum #14 awg bond wire shall be installed in all conduit, flexible metal conduit and wireways. All conduit and wire ways shall be bonded.
2. No run of armoured cable shall exceed 1 metre in length in the machine room, hoistway, elevator pit and car top.
3. Supply and install a junction box shall be mounted on the outside of the controller, the owner shall provide a telephone line to the junction box. The contractor is responsible for the telephone line after the junction box.
4. Hoistway wiring shall be rated at 300 Volt minimum #18 awg.

End of Addendum

Division 01 – General Requirements

- 00 10 00 General Instructions
- 00 15 45 General Safety and Fire Requirements

Division 14 – Conveying Equipment

- 14 21 00 Electric Elevators
- 14 24 00 Hydraulic Elevators

END OF SECTION

1. SCOPE OF WORK

- .1 Work under this contract covers the elevator upgrade in the Council's Building SAS-01 of the National Research Council.

2. 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.

3. 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.

4. GENERAL

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

5. COMPLETION

- .1 All work is to be completed within 20 weeks upon receipt of notification of acceptance of tender.

6. 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.

7. 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.

8. SUB-TRADES

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

9. SITE VISITS

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

10. 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.

11. 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.

12. 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.

Revised on Dec 20, 2013

- .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.
- 13. 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.
- 14. 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.
- 15. 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.
- .7 Submit tenders assuming existing or new equipment and systems will not be used for temporary heating and ventilating.

16. 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.

17. 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.

18. 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.

19. 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.

20. 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.

21. 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.

22. 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.

- .2 7 days before the scheduled completion date arrange to do an interim inspection with the Departmental Representative.

23. 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.

24. SHOP DRAWINGS

- .1 Submit to Departmental Representative for review, shop drawings, product data and samples specified within 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 2-week 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 1 electronic copy 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.

25. 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.

26. 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.

27. 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.

28. 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.

29. PARTIAL OCCUPANCY

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

30. 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.

31. 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.

32. 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.

33. 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.

34. 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.

35. SANITARY FACILITIES

- .1 Obtain permission from the Departmental Representative to use the existing washroom facilities in the building.
- .2 The contractor is responsible for keeping facilities clean at all times.

36. 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.

37. 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.

38. 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.

39. 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.
- 40. CONCEALING**
- .1 Conceal all services, piping, wiring, ductwork, etc., in floors, walls or ceilings except where indicated otherwise.
- 41. 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.
- 42. 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.
- 43. 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.
- 44. 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

45. 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.

46. 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.

47. 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.

48. IDENTIFICATION BADGES

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

49. 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.

50. DRAWINGS

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

A1-1 NRC ELEVATOR UPGRADE

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:

NRC LOCATION
SAS-01

CELLULAR AND PHONES
911

- .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

PART 1 GENERAL**1.1 SECTION INCLUDES**

- .1 Upgrades to existing electric elevator:
 - .1 New door operators.
 - .2 New electronic sensors at doors protecting from closure.
 - .3 New controller.
 - .4 New hoist motor.
 - .5 New governor.
 - .6 New governor cables and cable guards.
 - .7 New car and hall signalization.
 - .8 New aluminum checkerplate flooring.

1.2 RELATED WORK

- .1 Electrical Service Division 26

1.3 REFERENCES

- .1 Canadian Standards Association
 - .1 CSA-B44-00 Safety Code for Elevators
- .2 Province of Saskatchewan
 - .1 The Uniform Building Standards and Accessibility Act
- .3 American Society of Mechanical Engineers
 - .1 ASME A17.1 2000 - Safety Code for Elevators and Escalators

1.4 DESCRIPTION OF SYSTEMS

- .1 Existing Traction Elevator:
 - .1 Existing Rated Load: 2273 kg (5000 lb), exclusive of complete car, cable and ropes.
 - .2 Existing Rated Speed: 0.64 m/s (125 f/m).
 - .3 Existing Travel: Distance of about 13.95 m (45.75 ft) serving six (6) landings.
 - .4 Existing Openings:
 - .1 Front and rear openings at Basement Floor;
 - .2 Rear opening at Lower Main Floor landing;
 - .3 Front opening at Main Floor landing;
 - .4 Front openings at Second Floor, Third Floor and Fourth Floor landings.

1.5 AUTOMATIC OPERATION

- .1 Existing Elevator:
 - .1 Provide new operating panel in car with stainless steel faceplate containing pushbuttons to correspond with landings served, alarm button, emergency stop button and door open and close buttons, and key switches for car lighting, light ray, and fire service and as specified hereinafter. Provide a 15 A receptacle below the car operating station.
 - .2 Mount single pushbuttons at each terminal landing and "up" and "down" buttons at intermediate landings in a stainless steel face plate as specified hereinafter.
 - .3 Start car upon momentary pressure of one or more car or landings buttons, other than those for landing at which car is standing, and cause car to stop at first landing for which car or landing button is pressed, corresponding to direction in which car is travelling.
 - .4 Stop car at landings for which calls are registered and make these stops in order in which landings are reached, irrespective of sequence in which buttons are pressed, provided button for given landing is pressed sufficiently in advance of arrival of car at that landing to permit stop to be made.
 - .5 If no car buttons are pressed and car starts UP in response to several DOWN calls, proceed first to highest DOWN call and reverse to collect other DOWN calls. Collect UP calls similarly when car starts DOWN in response to such calls.
 - .6 If car stops for landing call and car button is pressed within predetermined interval after stop for landing corresponding to direction car was travelling, proceed in same direction regardless of other landing calls registered.
 - .7 If DOWN landing buttons are pressed while car is travelling UP, do not stop car at these landings but allow calls to remain registered.

- .8 After highest car and landing calls have been answered reverse car automatically and respond to DOWN car and landing calls.
 - .9 When travelling DOWN, do not permit car to respond to UP landing calls, but allow these calls to remain registered to be answered on next UP trip.
 - .10 At each stop in response to either car or corridor call, hold car at landing for adjustable time interval to permit passengers ON or OFF. Cancel interval upon registration of car call or pressure on door close button.
- 1.6 **PERFORMANCE**
- .1 Design and adjust equipment to perform as follows:
 - .1 Provide smooth acceleration and deceleration of car so adjusted to cause no passenger discomfort.
 - .2 Permit doors to start opening in advance of stop at next floor level that doors are at least three quarters open when car is stopped level with floor.
- 1.7 **SPEED VARIATION**
- .1 Design for speed variation as follows:
 - .1 When lifting rated load, do not permit car speed to vary from rated speed by more than 5%.
 - .2 When operating under varying normal conditions, ie. rated load to no load, up or down, do not permit total variation in car speed between any two normal operating conditions to exceed 10%.
- 1.8 **SAMPLES**
- .1 Submit samples of elevator finishes as listed below, in accordance with Section 01 33 00, Submittal Procedures:
 - .1 Signal Fixtures.
- 1.9 **SHOP DRAWINGS**
- .1 Submit shop drawings in accordance with Section 01 33 00, Submittal Procedures.
 - .2 Indicate on the layout drawings:
 - .1 Driving machine, controller, motor generator, selector governor and other components in the machine room.
 - .2 Car counterweight, sheaves, supporting beams, guide rails, buffers and other components in the hoistway.
 - .3 Weights of principle components.
 - .4 Top and bottom clearance and overtravel of car and counterweight.
 - .5 Location of circuit breaker, switchboard panel or disconnect switch, light switch and feeder extension points in the machine room.
 - .6 Location in hoistway or machine room for connection of travelling cables for car light and telephone.
 - .7 Full scale drawings of signal and operating fixtures.
 - .3 Include shop drawings of existing hoistway. Provide elevations for this purpose, showing precisely where each rail, cable, wire, conduit, etc., will be mounted. Indicate how hoistway doors, fascias, toeguards, etc will be constructed. Indicate on the elevations the positions of all the connections and mounting locations of brackets and fasteners.
 - .4 Indicate on General Arrangement Drawings:
 - .1 Hoistway entrances and door details and methods of fastening to building members.
 - .2 Car for each design specified showing details off construction fastening to platform, lighting, ventilation, and location of car equipment.
 - .5 Include catalogue illustrations of signal and operating equipment.
- 1.10 **MAINTENANCE DATA**
- .1 Provide copies of elevator maintenance manuals including complete data for extended maintenance in accordance with Section 01 78 00.
 - .2 Include the following maintenance data:
 - .1 Description of the elevator system's method of operation and control, including motor control system, door operation, signals, and special or non standard features provided.
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- .2 Complete parts catalogue giving list of repair and replacements parts with cuts, identifying numbers and exploded drawings.
- .3 Legible schematic wiring diagrams covering electrical equipment as supplied and installed, including changes made in final work, with symbols listed corresponding to identify or markings on both machine room and hoistway apparatus.

1.11 **USE OF ELEVATORS BY HANDICAPPED PERSONS**

- .1 Comply with CSA B44 1985 Appendix E.
- .2 Comply with Section 19 of the Uniform Building and Accessibility Standards Act, Province of Saskatchewan.

1.12 **POWER SUPPLY**

- .1 Power Supply will be 600 Volts, three phase, 60Hz, to match existing; verify on site.
- .2 Lighting supply will be 120 V.

PART 2 PRODUCTS

2.1 **COMPONENTS**

- .1 Use major elevator components from standard product line of one manufacturer unless otherwise approved by the Consultant.
- .2 Use major components only which have performed together satisfactorily under conditions of normal use in not less than two other elevator installations of similar design and for a period of at least one year.
- .3 Major component means elevator hoisting machine, motor generator set, controller, selector and group supervisory control equipment.

2.2 **ELECTRICAL WIRING, CONDUIT AND FITTINGS**

- .1 Use steel compression type fittings where electrical metallic tube is used. Fittings employing set screws are not acceptable.
- .2 Include at least 10% spare conductors and two pairs of shielded audio cables in travelling cables.
- .3 Do not parallel conductors to increase current carrying capacities unless lines are individually fused.
- .4 Do not use armoured flexible metal conduit as a grounding conductor.
- .5 Provide additional disconnect switches and wiring as required to suit machine room layout.
- .6 Include wiring and connections to elevator devices remote from hoistway and between elevator machine rooms.

2.3 **SOUND ISOLATION**

- .1 Include resilient pads to effectively isolate machine and motor generator from machine beams and flooring.

2.4 **FINISH**

- .1 Paint machinery equipment with oil resistant enamel after installation unless otherwise specified.
- .2 Free structural parts of elevator equipment of rust and paint with rust resistant paint.

2.5 **LUBRICATION**

- .1 Include means of lubricating bearings requiring periodic lubrication.

2.6 **ROLLER GUIDES**

- .1 Use tandem roller guides for both car and counterweight.

2.7 **HOISTING ROPES**

- .1 Use hoisting ropes installed on any one elevator from the same factory production run.
 - .2 Use wedge clamp wire rope fastenings or babbitted thimble rod fastenings.
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- 2.8 COMPENSATING DEVICES**
- .1 Include compensation chain to compensate for weight of hoist ropes and travelling cables. Use interwoven sashcord or other means to minimize noise levels from chain links.
- 2.9 MOTOR PROTECTION**
- .1 Include manual reset integral overheating protection to CSA C22.1 No. 77-1976 of motors subjected to elevator service.
- 2.10 VOLTAGE CONTROL**
- .1 Include for voltage controls as follows:
 - .1 Effect voltage control by means of uniformly varying DC voltage applied to the motor.
 - .2 Use motor generator set for each elevator.
 - .3 Provide timer control for generator shut down in idle traffic periods.
- 2.11 NEXT FLOOR STOP FEATURE**
- .1 In case of overspeed, tripping of overload relay, or opening of motor generator switch in corridor control panel stop car at next floor rather than make an emergency stop between floors when serving local floors.
- 2.12 AUTOMATIC SELF LEVELLING FEATURE**
- .1 Install self levelling feature which will automatically bring car to floor landings. Correct for overtravel independent of operating device.
 - .2 Maintain car floor level within 10 mm of landing floor with two way automatic levelling device.
- 2.13 ANTI-NUISANCE DEVICE**
- .1 Provide anti- nuisance device in each car that shall prevent car being removed from normal operation by including a control feature which shall cancel all car calls should the light ray remain unbroken by an exiting passenger on two car calls after answering any hall call.
- 2.14 LOAD WEIGHING DEVICE**
- .1 Include automatic load weighing device on each car to provide service as follows:
 - .1 Dispatch elevator from main terminal if filled to predetermined capacity.
 - .2 Cause elevators to bypass hall calls without cancelling them if car is filled to a predetermined capacity.
 - .2 Arrange load weighing device and load weighing bypass to be independently adjustable.
- 2.15 CAR PLATFORM AND CAR CAB**
- .1 Provide new 6mm thick aluminum checkerplate flooring, flush with sill, with minimum fastenings and with securely held front edge.
- 2.16 CAR AND HOISTWAY DOOR OPERATION**
- .1 Operate car and hoistway doors at each hoistway entrance simultaneously, quietly and smoothly by a solid state electronic door operator located on top of the car.
 - .2 Door speed shall be adjustable to suit Owners requirements.
 - .3 Open doors automatically as car is levelling.
- 2.17 DOOR PROTECTIVE DEVICE**
- .1 Include light ray device and safety shoe as follows:
 - .1 Extend safety shoe full height of clear opening and projecting beyond leading edge of each door panel.
 - .2 Should device touch person or object while car door is closing, automatically return car doors to open position.
 - .2 Add additional door protection by means of a dual beam horizontal infrared light ray device with rays projected across the elevator entrance at heights of approximately 125 and 735 above car sill.
 - .3 After stop is made, hold doors open for a predetermined adjustable interval, unless closing is initiated sooner by registration of car call, or by breaking and re-making of light ray device.
 - .4 Disconnect light ray device for that stop only if it is obscured for 10 seconds.
 - .5 Allow light ray to function in conjunction with anti- nuisance device.
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- .6 Supply and install key switch in main car control panel to disconnect light ray device.
- 2.18 METAL HOISTWAY ENTRANCES**
- .1 Cushion doors at each level of travel with rubber bumpers.
 - .2 Provide floor level designation numerals on both jambs of entrances. Numerals shall be 50 mm high, raised 0.8 mm, and mounted at 1 500 mm to the centreline of the numerals.
- 2.19 CAR OPERATING PANEL**
- .1 The operating panel shall be located in the front opening side return and shall contain the devices required for the specified operation and to meet code requirements.
 - .2 The panel shall consist of a series of modules. The floor buttons and passenger safety and service switches/buttons shall be mounted in the lowest portion of panel inclined 20° from vertical for optimum viewing.
 - .3 Floor buttons in the car station shall illuminate when a call is registered, and remain illuminated until the particular car stop has been made.
 - .4 The operation of the emergency stop button shall, in addition to stopping the elevator, sound the emergency alarm bell.
 - .5 All raised floor indications and handicap symbols shall be located immediately adjacent to the floor buttons and be fully integrated in the module design. No applied symbols shall be allowed. There shall be no floor indications or symbols on the buttons.
 - .6 The light key switch, fan key switch, inspection/service key switch, and light ray key switch where specified shall be mounted in upper portion of the operating panel below the position indicator. The key switches may be revised to a toggle type switch if all switches are housed behind a key locked door in the operating panel.
- 2.20 HALL BUTTONS**
- .1 At each terminal landing, a single push button shall be provided and at each intermediate landing, a button fixture shall be provided containing "UP" and "DOWN" push buttons. Hall buttons shall be of vandal resistant design with no exposed fasteners.
 - .2 Hall button faceplate shall be stainless steel with raised direction indicators beside pushbutton. Faceplate module shall also include service key switches as specified.
 - .3 When a call is registered by momentary pressure on a landing button, that button shall become illuminated and remain illuminated until the call is answered.
- 2.21 BUTTON ILLUMINATION**
- .1 Include integral illumination of each button in each landing and car operating fixture.
 - .2 Illuminate corresponding "UP" and "DOWN" button and each car button whenever call is registered. Extinguish illumination when call has been answered.
- 2.22 HALL LANTERNS**
- .1 Include up and down waiting passenger lanterns approved by the Consultant with stainless steel faceplates at intermediate landings, and single lanterns at terminal landings.
 - .2 When the car has reached a predetermined distance from the floor, and is going to stop at that floor, illuminate corresponding lantern and sound chime. Maintain lantern illumination until car has left floor.
 - .3 In making floor stop, should car over travel for a short distance, arrange the hall lantern for that floor to remain illuminated showing original direction of travel.
 - .4 Illuminate hall lantern indicator corresponding to hall call being answered.
 - .5 Sound chime once for up stops and twice for down stops.
 - .6 Ensure adequate fixture illumination to be clear and distinct under ambient lighting conditions.
- 2.23 HOISTWAY SWITCHES**
- .1 Where hoistway switches are used with passenger elevators, provide switch operation that is inaudible to passengers in elevator with fan switched off.
-

PART 3 EXECUTION

3.1 ARRANGEMENT OF EQUIPMENT

- .1 Arrange equipment in machine room so that rotating elements, sheaves and other equipment can be removed for repairs or replacement without dismantling or removing other equipment components.
- .2 Accommodate equipment in space provided.

3.2 PROTECTION

- .1 Provide protective coverings for finished surfaces.

3.3 TOUCH UP

- .1 Upon completion, touch up or restore to new condition, damaged or defaced factory finished surfaces.
- .2 Remove protective coverings and clean exposed surfaces after completion, and leave in first class condition.

3.4 FIELD QUALITY CONTROL

- .1 Perform and meet tests required by CAN3-B44-M85.
- .2 Submit to the Consultant, test and approval certificates issued by jurisdictional authorities.
- .3 Notify Consultant in writing at least two weeks prior to testing.

END OF SECTION

PART 1 GENERAL**1.1 SECTION INCLUDES**

- .1 Upgrades to existing hydraulic elevator:
 - .1 New door operators.
 - .2 New electronic sensors at doors protecting doors from closure.
 - .3 New hydraulic controller.
 - .4 New hydraulic power unit.
 - .5 New car and hall signalization.

1.2 REFERENCES

- .1 Canadian Standards Association
 - .1 CSA-B44-00 Safety Code for Elevators
- .2 Province of Saskatchewan
 - .1 The Uniform Building Standards and Accessibility Act
- .3 American Society of Mechanical Engineers
 - .1 ASME A17.1 2000 - Safety Code for Elevators and Escalators

1.3 DESIGN REQUIREMENTS

- .1 Characteristics of existing hydraulic elevator are as follows:
 - .1 Existing Rated Net Capacity: 1818 kg (4000 lb).
 - .2 Existing Rated Speed: 0.64 m/s (125 f/m).
 - .3 Existing Travel: Distance of about 11.75 m (38.5 ft) serving five (5) landings.
 - .4 Existing Openings:
 - .1 Rear opening at Lower Basement landing;
 - .2 Front opening at Basement landing;
 - .3 Front and rear openings at Main Floor, Second Floor and Third Floor landings.

1.4 SHOP DRAWINGS

- .1 Submit shop drawings in accordance with Section 01 33 00, Submittal Procedures.
- .2 Include on shop drawings:
 - .1 Hoisting dimensions;
 - .2 Guide rails, buffers and other components in hoistway;
 - .3 Car for each design specified, showing details of construction, lighting, ventilation and location of car equipment.
 - .4 Fixture location heights;
 - .5 Rating of drive motor;
 - .6 Controls locations;
 - .7 Pumping unit, controller, piping and other components in machine room;
 - .8 Location of circuit breaker, switchboard panel or disconnect switch, light switch and feeder extension points in the machine room;
 - .9 Heat dissipation of elevator equipment in the machine room.
- .3 Provide manufacturer's product data for:
 - .1 Signal and operating fixtures, operating panels, indicators.
- .4 Shop drawings shall verify:
 - .1 Elevator conforms to ASME A17.1, Safety Code for Elevators and Escalators, Rule 204.2a.
 - .2 Hydraulic fluid flash point at or above 37.8 degrees C.
- .5 Verify that field measurements are as indicated on shop drawings.

1.5 REGULATORY REQUIREMENTS

- .1 Perform work in accordance with CAN/CSA-B44, and as supplemented in this section.
 - .2 Conform to Appendix E of CAN/CSA-B44 and The Uniform Building Standards and Accessibility Act of the Province of Saskatchewan for guidelines for the physically handicapped.
 - .3 Conform to ASME A17.1, Safety Code for Elevators and Escalators, Rule 204.2a. Maximum flame spread rating of materials exposed to the interior of the car and the hoistway shall be 0 to 75, maximum smoke development shall be 0 to 450.
 - .4 Arrange, obtain and pay for permits, inspections, tests and certificates required by authorities having jurisdiction. Provide copies upon request.
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- .5 Supply all equipment and do all work in accordance with the elevator codes, bylaws, regulations and requirements of the local, provincial and federal authorities in effect at the time of execution of the work, including known changes to codes and regulations that will take effect prior to the scheduled completion of the work.

1.6 QUALIFICATIONS

- .1 Manufacturer: Company specializing in manufacturing elevator equipment with ten years minimum documented experience.
- .2 Installer: Company specializing in performing the work of this section by skilled elevator mechanics in the direct employ of elevator manufacturer (or in the direct employ of an authorized agent of elevator manufacturer).

1.7 MAINTENANCE DATA

- .1 Provide copies of maintenance instructions for incorporation into Operating and Maintenance Manuals in accordance with Section 01 78 00, Contract Closeout.
- .2 Include description of elevator system's method of operation and control including, motor and pump unit, door operation, signals, emergency power operation, and special or non-standard features provided.
- .3 Provide parts catalogues with complete list of equipment replacement parts with equipment description and identifying numbers.
- .4 Legible schematic of hydraulic piping and wiring diagrams covering electrical equipment installed, including changes made in final work, with symbols listed corresponding to identity or markings on both machine room and hoistway apparatus.
- .5 Lubrication chart.
- .6 Planned maintenance tasks and their frequencies.
- .7 Maintenance of special finishes.

PART 2 PRODUCTS

2.1 PUMP AND JACK UNIT

- .1 POWER UNIT (Oil Pumping and Control Mechanism): Compactly and neatly designed with all of the following components, combined in a self-contained unit: Oil reservoir with tank cover and controller compartment with cover; a submerged oil-hydraulic pump; an electric motor; an oil control unit with the following components built into a single housing: A high pressure relief valve; a check valve; an automatic unloading up start valve; a lowering and levelling valve; and a magnetic controller.
 - .1 Pump: Especially designed and manufactured for oil-hydraulic elevator service, of the positive displacement type, inherently designed for steady discharge with minimum pulsations to give smooth and quiet operation. Output of pump not to vary more than 10% between no load and full load on the elevator car.
 - .2 Drive: By direct coupling.
 - .3 Motor: Especially designed for oil-hydraulic elevator service, of standard manufacture, and of duty rating to comply with herein specified speeds and loads.
 - .4 Oil Control Unit: To consist of the following components, all built into a single housing. Welded manifolds with separate valves to accomplish each function will not be acceptable under this specification. Make all adjustments accessible without removing the assembly from the oil line:
 - .1 Relief Valve: Externally adjustable, and capable of bypassing the total oil flow without increasing back pressure more than 50% above working pressure.
 - .2 Up Start and Stop Valve: Externally adjustable and designed to bypass oil flow during start and stop of motor pump assembly. Valve to close slowly, gradually diverting oil to or from the Jack Unit, insuring smooth up starts and up stops.
 - .3 Check Valve: Designed to close quietly without permitting any perceptible reverse flow.
 - .4 Lowering Valve and Levelling Valve: Externally adjustable for drop-away speed, lowering speed, levelling speed and stopping speed to insure smooth "Down" starts and stops. Design the levelling valve to level the car to the floor in the direction the car is travelling when slowdown is initiated.

- .5 Power Controller: To contain all necessary electrical contactors, electro mechanical switches and thermal overload relays. Mount all components in a NEMA I enclosure. Logic control system to be microprocessor based or electro-mechanical. If microprocessor based system is used it must be protected from environmental extremes and excessive vibrations.
 - .2 SOUND INSULATING PANELS: Manufactured of reinforced 1.5 mm steel with a 25 mm thick core of fibreglass affixed to interior, mounted on all four open sides of the power unit frame.
 - .1 Sound Isolating Couplings. Install a minimum of two, in the oil line in the machine room between pump and jack.
 - .2 Oil-hydraulic Silencer (Muffler Device): Installed at the power unit location. Pulsation absorbing material inserted in a blowout proof housing arranged for inspecting interior parts without removing unit from oil line. Rubber hose without blowout proof features will not be acceptable.
 - .3 Vibration Pads: Mounted under the power unit assembly to isolate the unit from the building structure.
 - .4 Emergency Terminal Stopping Device: Provide an emergency terminal stopping device for speeds over 0.5 m/s which operates independently of the normal terminal stopping device should it fail to slow down the car at the terminal as intended. Design and install so that a single short circuit caused by a combination of grounds, or by other conditions, does not prevent their functioning.
 - .5 Do not control the normal and emergency terminal stopping devices with the same controller switches unless two or more separate and independent switches are provided, two of which to be closed in either direction of travel to complete the circuit to the control valve solenoids in the down direction and to complete the circuit to the pump motor for the up direction of travel.
 - .3 MAINLINE POTENTIAL SWITCH: Provide additional motor starter to prevent pumps from running in the event of failure of both normal stopping device and terminal stopping device.
 - .4 REDUCED VOLTAGE STARTING: Provide open transition Wye-Delta reduced voltage starting to limit the starting current to 300% of the full load running current.
- 2.2 **HOISTWAY EQUIPMENT**
- .1 AUTOMATIC TERMINAL LIMITS: Place electric limit switches in the hoistway near the terminal landings and design to cut off the electric current and stop the car should it run beyond either terminal landing.
 - .1 Automatic Self-Levelling: Provide the elevator with a self-levelling feature that will automatically bring the car to the floor landings. This self-levelling to be, within its zone, entirely automatic and independent of the operating device and correct for overtravel or undertravel. The car is also to be maintained approximately level with the landing irrespective of the load.
 - .2 Hoistway Door Unlocking Device: Provide hoistway door unlocking devices as specified by the ASME A17.1 Code to permit authorized persons to gain access to the hoistway when the elevator car is away from the landing.
 - .3 Door Operation:
 - .1 Provide a new direct current motor driven heavy duty operator, designed to operate the car and hoistway doors simultaneously.
 - .2 Electrically cushion door movements at both limits of travel and arrange door operating mechanism for manual operation in event of power failure.
 - .3 Provide the leading edge of the car door with a retractable reversal edge arranged to automatically return car and hoistway doors to the open position in event the doors are obstructed during closing cycle. Doors will then resume closing cycle. Doors to automatically open when the car arrives at the landing and automatically close after an adjustable time interval or when the car is dispatched to another landing.
 - .4 Direct drive geared operators, AC controlled units with oil checks, or other deviations from the above are not acceptable. The door operator microprocessor resides in the door operator and controls all functions of the door.
 - .5 Link the microprocessor door operator and the microprocessor selector to the main processor through a serial communications link.
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- .4 Nudging: The doors remain open as long as the electronic detector senses the presence of a passenger or object in the door opening. If door movement is obstructed for a field programmable time value, a buzzer will sound and the doors will close at reduced speed. If the reversing edge contacts a person or object while closing, the doors will stop and resume closing after the obstruction has been removed.
- .5 When the doors have failed to fully close and are in the recycle mode, the door drive motor to have increased torque applied. This may possibly overcome any mechanical resistance or differential air pressure and allow the door to close.

2.3 CONTROLS

.1 AUTOMATIC PUSHBUTTON OPERATION:

- .1 Elevator control: Distributed control system, microprocessor based and software oriented. Locate the main microprocessor and car controller behind the elevator swing return panel.
- .2 Link together the microprocessor selector, situated on the car top and the microprocessor door operator, residing in the door operator with the main processor by a serial communications link.
- .3 Control of the elevator to be automatic in operation by means of push buttons in the car numbered to correspond to floors served, for registering car stops by "up-down" push button at each intermediate landing and "call" push buttons at terminal landings.
- .4 The momentary pressing of one or more buttons dispatches the car to the designated landings in the order in which the landings are reached by the car, irrespective of the sequence in which the buttons are pressed. Each landing call to be cancelled when answered.
- .5 When the car is travelling in the up direction, it shall stop at all floors for which car buttons or "up" hall buttons have been pressed; it is not to stop at floors when "down" buttons only have been pressed, unless the stop for that floor has been registered by a car button, or unless the down call is at the highest floor for which any buttons have been pressed. Likewise, the pressing of an "up" button when the car is travelling in the down direction is not to intercept the travel unless the stop for that floor has been registered by a car button, or unless the up call is the lowest for which any button has been pressed.
- .6 When the car has responded to its highest or lowest stop, and stops are registered for the opposite direction, its direction of travel to reverse automatically and it then answers the calls registered for that direction.
- .7 Should both up and down calls be registered at an intermediate floor, only the call corresponding to the direction in which the car is travelling is to be cancelled upon the stopping of the car at the landing.
- .8 Provide an adjustable time delay so that after the car has stopped in response to a hall button, the entering passenger may register his car button before the car will reverse to answer calls in the opposite direction.

2.4 CAR AND HALL FIXTURES

.1 CAR OPERATING STATION: Provide a main car control panel in each car that contains the devices required for the specified operations.

- .1 The lowest module to contain the "door open", "door close", "emergency stop switch" and alarm button. Intermediate modules to contain illuminated floor buttons which will illuminate when a call is registered and will remain illuminated until the call is answered. The top module to contain the required switches. All raised floor indications and handicap symbols to be located immediately adjacent to the floor buttons and fully integrated in the module design. No applied symbols to be allowed. There are to be no floor indications or symbols on the buttons.
- .2 Landing Buttons: Provide riser(s) of landing pushbutton stations. Each intermediate station to consist of two illuminated pushbuttons with raised direction arrow, one for the up direction and the other for the down direction. Each terminal station to contain an illuminated pushbutton with raised direction arrow. The buttons to be illuminated to indicate that a call has been registered at that floor for the indicated direction.

.2 HALL LANTERNS: Install a hall lantern with an audible signal at each landing entrance for each elevator. The lanterns, when illuminated, to indicate which elevator car will stop at the landing and in which direction the car is set to travel.

- .1 As soon as a car has reached a predetermined distance from a floor at which it is going to stop, the corresponding hall lantern to illuminate and the signal sound. The hall lantern to remain illuminated until the car doors close in preparation for leaving the floor. When Hall Position Indicators are provided, combine the lantern in the face plate of the Position Indicator.
 - .3 **CAR RIDING LANTERN:** Install the car riding lantern in the column of the elevator car adjacent to the main car station. The lantern, when illuminated, will indicate the direction of travel for which the car is set. The lantern will illuminate and the signal will sound when the car arrives at a floor where it will stop. The lantern to remain illuminated until the doors start to close.
 - .4 **FLOOR IDENTIFICATION SIGNS:** In addition to the raised Alpha/Numeric floor markings adjacent to each pushbutton in the car control panel(s) provide floor identification signs at specified floors. Integrate these floor signs with the car control modules and permanently mark. Painted or applied identifications are not acceptable. The identifications to consist of the same material and graphic design as the standard floor markings.
- 2.5 HALL BUTTONS**
- .1 At each terminal landing, a single push button shall be provided and at each intermediate landing, a button fixture shall be provided containing "UP" and "DOWN" push buttons. Hall buttons shall be of vandal resistant design with no exposed fasteners.
 - .2 Hall button faceplate shall be stainless steel with raised direction indicators beside pushbutton. Faceplate module shall also include service key switches as specified.
 - .3 When a call is registered by momentary pressure on a landing button, that button shall become illuminated and remain illuminated until the call is answered.
- 2.6 CAR ENCLOSURE:**
- .1 **ACCESSORIES:**
 - .1 Telephone cabinet in car with telephone symbol 75 mm high. Identify elevator and name of building on back of cabinet cover. Include telephone wiring within elevator hoistway. Instrument by others.
- 2.7 DOOR PROTECTIVE DEVICE**
- .1 Provide doors with a reopening device that will stop and reopen the car doors and hoistway doors automatically should the doors become obstructed by an object or person.
 - .2 Primary door protection shall consist of a two dimensional, multi-beam array projecting across the car door opening. Under normal operation and for any door position, the system shall detect as a blockage an opaque object that is equal to or greater than 35 mm in diameter when inserted between the car doors at vertical positions from within 25 mm above the sill to 1800 mm above the sill. Under degraded conditions (one or more blocked or failed beams), the primary protection shall detect opaque objects that are equal to or greater than 100 mm in diameter for the same vertical coverage. If the system performance is degraded to the point that the 100 mm object cannot be detected, the system shall maintain the doors open or permit closing only under nudging force conditions.
 - .3 The door reopening device shall also include a secondary, three dimensional, triangular infrared multi-beam array projecting across the door opening and extending into the hoistway door zone. The door opening device will cause the doors to reopen when it detects a person or object entering or exiting the car in the area between the hoistway doors or the entryway area adjacent to the hoistway doors.
- 2.8 FINISH**
- .1 Paint machinery equipment with oil resistant machinery enamel unless otherwise specified.
 - .2 Free structural parts of rust. Paint with rust resistant paint.

PART 3 EXECUTION

3.1 EXAMINATION

- .1 Examine work in accordance with Section 01 70 00, Execution Requirements.
 - .2 Verify that hoistway, pit and machine room are ready for equipment installation.
 - .3 Verify shaft and openings are of correct size and within tolerances.
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- .4 Confirm electrical power is available and of correct characteristics.

3.2 **INSTALLATION**

- .1 Install in accordance with CAN/CSA-B44.
- .2 Install system components. Connect equipment to building utilities. Install piping between hoistway plunger and pump unit.
- .3 Provide conduit, boxes, wiring, and accessories.
- .4 Mount motor and pump unit on vibration and acoustic isolators, on bed plate and concrete pad. Place unit on structural supports and bearing plates. Securely fasten to building supports to prevent lateral displacement.
- .5 Arrange equipment in machine room so functioning equipment and other equipment can be removed for repairs or replacement without dismantling or removing other equipment components. Arrange for clear passage to access door. Accommodate equipment in space indicated.
- .6 Locate piping where it can be readily accessed for service.
- .7 Adjust equipment for smooth and quiet operation.
- .8 Mount copy of master schematic wiring diagrams in framed glass or plastic enclosure on machine room wall. If number of wiring diagrams exceeds space available, then mount drawings protected with clear plastic on rack permanently attached to machine room wall.
- .9 Install lubrication chart in plastic or glass frame, mounted on machine room wall.
- .10 Balance car.

3.3 **TOLERANCES**

- .1 Car Movement on Guide Rails: Smooth movement, with no perceptible lateral or oscillating movement or vibration.
- .2 Car Speed Variation: Maximum 5% in lifting rated load.
- .3 Car Speed Variation: Maximum 10% in UP or DOWN speed, empty to full rated load.

3.4 **ADJUSTING**

- .1 Adjust for smooth acceleration and deceleration of car so not to cause passenger discomfort.
- .2 Adjust automatic floor levelling feature at each floor to achieve 6 mm from flush.

3.5 **CLEANING**

- .1 Remove protective coverings from finished surfaces.
- .2 Clean surfaces and components ready for inspection.

END OF 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 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.



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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 Protesting 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 accost 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.



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)

GCI 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 CS2.1.2 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.