Public Works and Government Services Canada | Travaux publics et Services gouvernementaux Canada

RETURN BIDS TO:
RETOURNER LES SOUMISSIONS À:

Travaux publics et Services gouvernementaux Canada
Place Bonaventure,
800 rue de la Gauchetière Ouest
Voir aux présentes - See herein
Montréal
Québec
H5A 1L6
FAX pour soumissions: (514) 496-3822

REQUEST FOR PROPOSAL
DEMANDE DE PROPOSITION

Proposal To: Public Works and Government Services Canada

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

Proposition aux: Travaux Publics et Services Gouvernementaux Canada

Nous offrons par la présente de vendre à Sa Majesté la Reine du chef du Canada, aux conditions énoncées ou incluses par référence dans la présente et aux annexes ci-jointes, les biens, services et construction énumérés ici sur toute feuille ci-annexée, au(x) prix indiqué(s).

Comments - Commentaires

Vendor/Firm Name and Address
Raison sociale et adresse du fournisseur/de l'entrepreneur

Issuing Office - Bureau de distribution

Travaux publics et Services gouvernementaux Canada
Place Bonaventure,
800 rue de la Gauchetière Ouest
Voir aux présentes - See herein
Montréal
Québec
H5A 1L6

Title - Sujet Immigration Holding Center, Laval	
Solicitation No. - N° de l'invitation EF944-171885/B	**Date** 2017-05-30
Client Reference No. - N° de référence du client R.082963.001	
GETS Reference No. - N° de référence de SEAG PW-$MTC-560-14362	
File No. - N° de dossier MTC-6-39291 (560)	**CCC No./N° CCC - FMS No./N° VME**
Solicitation Closes - L'invitation prend fin **at - à 02:00 PM** **on - le 2017-07-12**	**Time Zone** **Fuseau horaire** Heure Avancée de l'Est HAE
F.O.B. - F.A.B. **Plant-Usine:** ☐ **Destination:** ☑ **Other-Autre:** ☐	
Address Enquiries to: - Adresser toutes questions à: Ghali, Camille	**Buyer Id - Id de l'acheteur** mtc560
Telephone No. - N° de téléphone (514) 496-3871 ( )	**FAX No. - N° de FAX** ( ) -

Destination - of Goods, Services, and Construction:
Destination - des biens, services et construction:

MINISTERE DES TRAVAUX PUBLICS ET SERVICES GOUVERNEMENTAUX CANADA
PL.BONAVENTURE,PORTAIL S-E,BUR.7300
800 RUE DE LA GAUCHETIERE O.
MONTREAL
Québec
H5A1L6
Canada

Instructions: See Herein

Instructions: Voir aux présentes

Delivery Required - Livraison exigée .	**Delivery Offered - Livraison proposée**

Vendor/Firm Name and Address
Raison sociale et adresse du fournisseur/de l'entrepreneur

Telephone No. - N° de téléphone
Facsimile No. - N° de télécopieur

Name and title of person authorized to sign on behalf of Vendor/Firm (type or print)
Nom et titre de la personne autorisée à signer au nom du fournisseur/ de l'entrepreneur (taper ou écrire en caractères d'imprimerie)

Signature **Date**

Canada

IMPORTANT NOTICE TO BIDDERS

CHANGE OF ADDRESS – BIDS DELIVERY

For bids delivered after Monday, May 8th, 2017, or later:

In person or by mail:
Place Bonaventure, 1st Floor
800 de la Gauchetière Street West, Suite 1110
Montreal (QC), H5A 1L6

Immigration Holding Centre Project, Laval, Quebec

REQUEST FOR PROPOSAL (RFP)

THIS PROCUREMENT CONTAINS A SECURITY REQUIREMENT

TABLE OF CONTENTS

The following is intended to clarify the general structure of the whole document.

SUPPLEMENTARY INSTRUCTIONS TO PROPONENTS (SI)

SI1 INTRODUCTION

1. Public Works and Government Services Canada (PWGSC) intends to retain an individual consulting firm or joint venture to provide the professional services for the project as set out in this Request for Proposal (RFP).

2. This is a single phase selection process.
The strict time frames to implement this project do not allow sufficient time to conduct the usual two phases selection process.

3. Proponents responding to this RFP are requested to submit a full and complete proposal. The proposal will cover not only the qualifications, experience and organization of the proposed Consultant Team, but also the detailed approach to the work, and the pricing and terms offered. A combination of the technical and price of services submissions will constitute the proposal.

SI2 PROPOSAL DOCUMENTS

1. All instructions, general terms, conditions and clauses identified in the RFP by number, date and title, are hereby incorporated by reference into and form part of this solicitation and any resultant contract.

   All instructions, general terms, conditions and clauses identified in the RFP by number, date and title, are set out in the Standard Acquisition Clauses and Conditions Manual (https://buyandsell.gc.ca/policy-and-guidelines/standard-acquisition-clauses-and-conditions-manual) issued by Public Works and Government Services Canada.

2. The following are the proposal documents:

   (a) Supplementary Instructions to Proponents (SI);
   R1410T (2016-04-04), General instructions (GI) – Architectural and/or Engineering services – Request for Proposal;
   Submission Requirements and Evaluation (SRE);

   Subsection 2.b. of section GI16, Submission of proposal of R1410T, incorporated by reference above, is deleted in its entirety and replaced with the following:

   b. send its proposal only to Public Works and Government Services Canada (PWGSC) Bid Receiving Unit specified on page 1 of the RFP;

(b) the general terms, conditions and clauses, as amended, identified in the Agreement clause;

(c) Consultant Services Mandate;

(d) the document entitled "Doing Business with Quebec Region";

(e) the **Security Requirements Check List** (SRCL);

(f) any amendment to the solicitation document issued prior to the date set for receipt of proposals; and

(g) the proposal, Declaration/Certifications Form and Price Proposal Form.

3. Submission of a proposal constitutes acknowledgment that the Proponent has read and agrees to be bound by these documents.

SI3 QUESTIONS OR REQUEST FOR CLARIFICATION

Questions or requests for clarification during the solicitation period must be submitted in writing to the Contracting Authority named on the RFP - Page 1 as early as possible. Enquiries should be received no later than [**10**] working days prior to the closing date identified on the front page of the Request for Proposal. Enquiries received after that date may not be answered prior to the closing date of the solicitation.

SI4 CANADA'S TRADE AGREEMENTS

This procurement is subject to the provisions of the North American Free Trade Agreement (NAFTA) and the World Trade Organization - Agreement on Government Procurement (WTO-AGP).

SI5 CERTIFICATIONS

1. **Integrity Provisions – Declaration of Convicted Offences**
In accordance with the Ineligibility and Suspension Policy (http://www.tpsgc-pwgsc.gc.ca/ci-if/politique-policy-eng.html), the Proponent must **provide with its bid**, **as applicable**, to be given further consideration in the procurement process, the required documentation as per R1410T (2016-04-04), General instructions 1 (GI1), Integrity Provisions – Proposal, **section 3b**.

2. Federal Contractors Program for Employment Equity - Proposal Certification

By submitting a proposal, the Proponent certifies that the Proponent, and any of the Proponent's members if the Proponent is a Joint Venture, is not named on the Federal Contractors Program (FCP) for employment equity "FCP Limited Eligibility to Bid" list (http://www.labour.gc.ca/eng/standards_equity/eq/emp/fcp/list/inelig.shtml) available from Employment and Social Development Canada (ESDC) - Labour's website.

Canada will have the right to declare a proposal non-responsive if the Proponent, or any member of the Proponent if the Proponent is a Joint Venture, appears on the "FCP Limited Eligibility to Bid" list at the time of contract award.

Canada will also have the right to terminate the Agreement for default if a Consultant, or any member of the Consultant if the Consultant is a Joint Venture, appears on the "FCP Limited Eligibility to Bid" list during the period of the Agreement.

The Proponent must provide the Contracting Authority with a completed Federal Contractors Program for Employment Equity - Certification (see Appendix B - Declaration/Certifications Form), before contract award. If the Proponent is a Joint Venture, the Proponent must provide the Contracting Authority with a completed Federal Contractors Program for Employment Equity - Certification, for each member of the Joint Venture.

SI6 SECURITY REQUIREMENT

1. At the date of bid closing, the following conditions must be met:

   (a) the Proponent must hold a valid organization security clearance as indicated in Supplementary Conditions SC1;

   (b) the Proponent's proposed individuals requiring access to classified or protected information, assets or sensitive work site(s) must meet the security requirement as indicated in Supplementary Conditions SC1;

   (c) the Proponent must provide the name of all individuals who will require access to classified or protected information, assets or sensitive work sites.;

   (d) the Proponent's proposed location of service performance or document safeguarding must meet the security requirement as indicated in Supplementary Conditions SC1.

   (e) the Proponent must provide the address(es) of proposed location(s) of service performance or document safeguarding as indicated in the Declaration/Certifications Form.

2. For additional information on security requirements, proponents should refer to the Canadian Industrial Security Directorate (CISD), Industrial Security Program of Public Works and Government Services Canada (http://ssi-iss.tpsgc-pwgsc.gc.ca/index-eng.html) website.

SI7 - WEBSITES

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

Employment Equity Act
http://laws-lois.justice.gc.ca/eng/acts/E-5.401/index.html

Federal Contractors Program (FCP)
http://www.labour.gc.ca/eng/standards_equity/eq/emp/fcp/index.shtml

Certificate of Commitment to Implement Employment Equity form LAB 1168
http://www.servicecanada.gc.ca/cgi-bin/search/eforms/index.cgi?app=profile&form=lab1168&dept=sc&lang=e

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

Code of Conduct for Procurement
http://www.tpsgc-pwgsc.gc.ca/app-acq/cndt-cndct/contexte-context-eng.html

Lobbying Act
http://laws-lois.justice.gc.ca/eng/acts/L-12.4/?noCookie

Buy and Sell
https://buyandsell.gc.ca/

Supplier Registration Information
https://srisupplier.contractscanada.gc.ca

Consultant Performance Evaluation Report Form
http://www.tpsgc-pwgsc.gc.ca/app-acq/forms/documents/2913-1.pdf

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

National Joint Council (NJC) Travel Directive
http://www.njc-cnm.gc.ca/directive/travel-voyage/index-eng.php

TERMS, CONDITIONS AND CLAUSES

AGREEMENT

1. The Consultant understands and agrees that upon acceptance of the offer by Canada, a binding Agreement shall be formed between Canada and the Consultant and the documents forming the Agreement shall be the following:

(a) the Front Page and this Agreement clause;
(b) the General Terms, Conditions and Clauses, as amended, identified as:

R1210D (2016-04-04), General Condition
(GC) 1 - General Provisions – Architectural and/or Engineering Services

R1215D (2016-01-28), General Condition
(GC) 2 - Administration of the Contract – Architectural and/or Engineering Services

R1220D (2015-02-25), General Condition
(GC) 3 - Consultant Services

R1225D (2015-04-01), General Condition
(GC) 4 - Intellectual Property

R1230D (2016-01-28), General Condition
(GC) 5 - Terms of Payment – Architectural and/or Engineering Services

R1235D (2011-05-16), General Condition
(GC) 6 - Changes

R1240D (2011-05-16), General Condition
(GC) 7 - Taking the Services Out of the Consultant's Hands, Suspension or Termination

R1245D (2016-01-28), General Condition
(GC) 8 - Dispute Resolution – Architectural and/or Engineering Services

R1250D (2015-02-25), General Condition
(GC) 9 - Indemnification and Insurance

Supplementary Conditions
Agreement Particulars

(c) Consultant Services Mandate;
(d) the document entitled "Doing Business with Quebec Region";
(e) **the Security Requirements Check List (SRCL);**
(f) any amendment to the solicitation document incorporated in the Agreement before the date of the Agreement;
(g) the proposal, the Declaration/Certifications Form and the Price Proposal Form.

Section GC1.1 of R1210D, Definitions, incorporated by reference above, is amended as follows:

ADD:

"Architectural and Engineering Services":
means services to provide a range of investigation and recommendation reports, planning, design, preparation, or supervision of the construction, repair, renovation or restoration of a work and includes contract administration services, for real property projects.

"Construction Services":
means construction, repair, renovation or restoration of any work except a vessel and includes; the supply and erection of a prefabricated structure; dredging; demolition; environmental services related to a real property; or, the hire of equipment to be used in or incidentally to the execution of any construction services referred to above.

"Facility Maintenance Services":
means services related to activities normally associated with the maintenance of a facility and keeping spaces, structures and infrastructure in proper operating condition in a routine, scheduled, or anticipated fashion to prevent failure and degradation including inspection, testing, servicing, classification as to serviceability, repairs, rebuilding and reclamation, as well as cleaning, waste removal, snow removal, lawn care, replacement of flooring, lighting or plumbing fixtures, painting and other minor works.

Section GC1.12 of R1210D, Not applicable, incorporated by reference above, is deleted in its entirety and replaced with the following:

R1210D CG1.12 (2016-04-04) Performance evaluation - contract

1. Consultants shall take note that the performance of the Consultant during and upon completion of the services shall be evaluated by Canada. The evaluation includes all or some of the following criteria:
   a. Design
   b. Quality of Results
   c. Management
   d. Time
   e. Cost

2. A weighting factor of 20 points will be assigned to each of the five criteria as follows:
   a. Unacceptable: 0 to 5 points
   b. Not satisfactory: 6 to 10 points
   c. Satisfactory: 11 to 16 points
   d. Superior: 17 to 20 points

3. The consequences resulting from the performance evaluation are as follows:
   a. For an overall rating of 85% or higher, a congratulation letter is sent to the Consultant.
   b. For an overall rating of between 51% and 84%, a standard, meets expectations, letter is sent to the Consultant.
   c. For an overall rating of between 30% and 50%, a warning letter is sent to the Consultant indicating that if, within the next two (2) years, they receive 50% or less on another evaluation, the firm may be suspended from any new PWGSC solicitations for construction services, architectural and engineering services or facility maintenance services, of real property projects, for a period of one year.
   d. For an overall rating of less than 30%, a suspension letter is sent to the Consultant indicating that the firm is suspended from any new PWGSC solicitations for construction services, architectural and engineering services or facility maintenance services, of real property projects, for a period of one year.
   e. For a rating of 5 points or less on any one criterion, a suspension letter is sent to the Consultant indicating that the firm is suspended from any new PWGSC solicitations for construction services, architectural and engineering services or facility maintenance services, of real property projects, for a period of one year.

The form PWGSC-TPSGC 2913-1, Select - Consultant Performance Evaluation Report (CPERF), is used to record the performance.

2. The documents identified above by title, number and date are hereby incorporated by reference into and form part of this Agreement, as though expressly set out herein, subject to any other express terms and conditions herein contained.

The documents identified above by title, number and date are set out in the Standard Acquisition Clauses and Conditions (SACC) Manual, issued by Public Works and Government Services Canada (PWGSC). The SACC Manual is available on the PWGSC Web site: https://buyandsell.gc.ca/policy-and-guidelines/standard-acquisition-clauses-and-conditions-manual

3. If there is a discrepancy between the wording of any documents that appear on the following list, the wording of the document that first appears on the list has priority over the wording of any document that subsequently appears on the list.

(a) any amendment or variation in the Agreement that is made in accordance with the terms and conditions of the Agreement;
(b) any amendment to the solicitation document incorporated in the Agreement before the date of the Agreement;
(c) this Agreement clause;
(d) Supplementary Conditions;
(e) General Terms, Conditions and Clauses;
(f) Agreement Particulars;
(g) Consultant Services Mandate
(h) the document entitled “Doing Business with Quebec Region”;
(i) the document entitled “**Security Requirement Check List**” (**SRCL**);
(j) the proposal.

SUPPLEMENTARY CONDITIONS (SC)

SC1 SUPPLEMENTARY CONDITIONS

There are no supplementary conditions which apply to the Agreement.

SC2 SECURITY REQUIREMENT

1. The following security requirement (SRCL and related clauses) applies and form part of the Agreement.

2. Consultant's Site or Premises Requiring Safeguard Measures

The Consultant must diligently maintain up-to-date, the information related to the Consultant's site or premises, where safeguard measures are required in the performance of the Services, for the following addresses:

Address:
Street Number / Street Name, Unit / Suite / Apartment Number
City, Province, Territory
Postal Code

SECURITY REQUIREMENT FOR CANADIAN SUPPLIER: PWGSC FILE # EF944-171885

1. The Contractor must, at all times during the performance of the Contract, hold a valid Designated Organization Screening (DOS) with approved Document Safeguarding at the **PROTECTED B** level and Production Capabilities at the level of **PROTECTED B**, issued by the Canadian Industrial Security Directorate, Public Works and Government Services Canada.

2. The Contractor personnel requiring access to **PROTECTED** information, assets or work site(s) must **EACH** hold a valid **RELIABILITY STATUS**, granted or approved by the Canadian Industrial Security Directorate (CISD), Public Works and Government Services Canada (PWGSC).

3. The Contractor **MUST NOT** utilize its Information Technology systems to electronically process, produce or store **PROTECTED** information until the CISD/PWGSC has issued written approval. After approval has been granted or approved, these tasks may be performed at the level of PROTECTED **PROTECTED B**.

4. Subcontracts which contain security requirements are **NOT** to be awarded without the prior written permission of CISD/PWGSC.

5. The Contractor must comply with the provisions of the:

   (a) Security Requirements Check List and security guide (if applicable), attached at Annex E;

   (b) *Industrial Security Manual* (Latest Edition)

SC3 LANGUAGE REQUIREMENTS

1. Communication between Canada and the Consultant shall be in the language of choice of the Consultant Team, which shall be deemed to be the language of the Consultant's proposal.

2. The Consultant's services during construction tender call (such as addenda preparation, tenderers' briefing meetings, technical answers to questions by bidders, including translation of bidder's questions) shall be provided expeditiously in both languages, as necessary.

3. The Consultant's services during construction shall be provided in the language of choice of the Contractor. The successful Contractor will be asked to commit to one or other of Canada's official languages upon award of the Construction Contract and, thereafter construction and contract administration services will be conducted in the language chosen by the Contractor.

4. Other required services in both of Canada's official languages (such as construction documentation) are described in detail in the Project Brief.

5. The Consultant Team, including the Prime Consultant, Sub-Consultants and Specialists Consultants shall ensure that the services being provided in either language shall be to a professional standard.

SC4 FEDERAL CONTRACTORS PROGRAM FOR EMPLOYMENT EQUITY - DEFAULT BY THE CONSULTANT

The Consultant understands and agrees that, when an Agreement to Implement Employment Equity (AIEE) exists between the Consultant and Employment and Social Development Canada (ESDC)-Labour, the AIEE must remain valid during the entire period of the contract. If the AIEE becomes invalid, the name of the Consultant will be added to the "FCP Limited Eligibility to Bid" list. The imposition of such a sanction by ESDC will constitute the Consultant in default as per the terms of the contract.

AGREEMENT PARTICULARS

The Agreement Particulars will be issued at time of award of contract in particular:

- The plans for the development of generic design (drawings and specifications SR1, SR2 and SR3),
- The technical data sheets,
- The list of premises,
- The equipment data sheets, furnishings,
- The interior finishes

The particulars of the agreement will identify the fees based in particular on:

• Hourly rates: the rate shown in column 4 of Tables C1 to C8
• Fixed price: amount indicated in SA1, SA2, SA4 and SA5

ANNEX A - TEAM IDENTIFICATION FORMAT

For details on this format, please see SRE in the Request For Proposal.

The prime consultant and other members of the Consultant Team shall be, or eligible to be, licensed, certified or otherwise authorized to provide the necessary professional services to the full extent that may be required by provincial or territorial law.

I. Prime Consultant (Proponent - Architect):

Firm or Joint Venture Name: .....
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.....

Key Individuals and provincial professional licensing status and/or professional accreditation:

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II. Key Sub Consultants / Specialists:

Mechanical Engineering

Firm Name: .....
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Key Individuals and provincial professional licensing status and/or professional accreditation:

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III. Key Sub-Consultants / Specialists:

Electrical Engineering
Firm Name: .....
.....
.....

Key Individuals and provincial professional licensing status and/or professional accreditation:

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IV. Key Sub-Consultants / Specialists:

Structural Engineering
Firm Name: .....
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Key Individuals and provincial professional licensing status and/or professional accreditation:

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V. Key Sub-Consultants / Specialists:

Civil Engineering
Firm Name: .....
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Key Individuals and provincial professional licensing status and/or professional accreditation:

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VI. Key Sub-Consultants / Specialists:

Environmental Engineering
Firm Name: .....
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Key Individuals and provincial professional licensing status and/or professional accreditation:

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VII. Key Sub-Consultants / Specialists:

Landscape Architecture
Firm Name .....
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Key Individuals and provincial professional licensing status and/or professional accreditation:

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VIII. Key Sub-Consultants / Specialists:

Commissioning Specialist
Firm Name .....
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Key Individuals and provincial professional licensing status and/or professional accreditation:

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IX. Key Sub-Consultants / Specialists:

Restaurant and Food Service Specialist
Firm Name: .....
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.....

Key Individuals and provincial professional licensing status and/or professional accreditation:

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X. Key Sub-Consultants / Specialists:

Coding Specialist
Firm Name: .....
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Key Individuals and provincial professional licensing status and/or professional accreditation:

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XI. Key Sub-Consultants / Specialists:

Security Hardware Specialist
Firm Name: .....
.....
.....

Key Individuals and provincial professional licensing status and/or professional accreditation:

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XII. Key Sub-Consultants / Specialists:

Geotechnical Specialist
Firm Name: .....
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Key Individuals and provincial professional licensing status and/or professional accreditation:

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XIII. Key Sub-Consultants / Specialists:

Fire Protection Specialist
Firm Name: .....
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.....

Key Individuals and provincial professional licensing status and/or professional accreditation:

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XIV. Key Sub-Consultants / Specialists:

Cost Specialist
Firm Name: .....
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.....

Key Individuals and provincial professional licensing status and/or professional accreditation:

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ANNEX B - DECLARATION/CERTIFICATIONS FORM

Project Title:

Name of Proponent:

Street Address: **Mailing Address:**

Proponent's Proposed Site or premises Requiring Safeguard Measures (refer to SI? Security Requirement):

Address:

_____
Street Number / Street Name, Unit / Suite / Apartment Number

_____
City, Province, Territory

_____
Postal Code

Telephone Number: ( )

Fax Number: ( )

E-Mail:

Procurement Business Number:

Type of Organization:	**Size of Organization:**
_____ Sole Proprietorship _____ Partnership _____ Corporation _____ Joint Venture	Number of Employees _____ Graduate Architects / Professional Engineers _____ Other Professionals _____ Technical Support _____ Other _____

ANNEX B - DECLARATION/CERTIFICATIONS FORM (CONT'D)

Federal Contractors Program for Employment Equity - Certification

I, the Proponent, by submitting the present information to the Contracting Authority, certify that the information provided is true as of the date indicated below. The certifications provided to Canada are subject to verification at all times. I understand that Canada will declare a proposal non-responsive, or will declare a consultant in default, if a certification is found to be untrue, whether during the proposal evaluation period or during the contract period. Canada will have the right to ask for additional information to verify the Proponent's certifications. Failure to comply with any request or requirement imposed by Canada may render the proposal non-responsive or constitute a default under the contract.

For further information on the Federal Contractors Program for Employment Equity visit Employment and Social Development Canada (ESDC)-Labour's website.

Date:_____(YY/MM/DD) (If left blank, the date will be deemed to be the bid closing date.)

Complete both A and B.

A. Check only one of the following:

( ) A1. The Proponent certifies having no work force in Canada.

( ) A2. The Proponent certifies being a public sector employer.

( ) A3. The Proponent certifies being a federally regulated employer being subject to the *Employment Equity Act*.

( ) A4. The Proponent certifies having a combined work force in Canada of less than 100 permanent full-time and/or permanent part-time employees.

A5. The Proponent has a combined work force in Canada of 100 or more employees; and

ANNEX B - DECLARATION/CERTIFICATIONS FORM (CONT'D)

( ) A5.1. The Proponent certifies already having a valid and current Agreement to Implement Employment Equity (AIEE) in place with ESDC-Labour.

OR

( ) A5.2. The Proponent certifies having submitted the Agreement to Implement Employment Equity (LAB1168) to ESDC-Labour. As this is a condition to contract award, proceed to completing the form Agreement to Implement Employment Equity (LAB1168), duly signing it, and transmit it to ESDC-Labour.

B. Check only one of the following:

( ) B1. The Proponent is not a Joint Venture.

OR

( ) B2. The Proponent is a Joint Venture and each member of the Joint Venture must provide the Contracting Authority with a completed Federal Contractors Program for Employment Equity - Certification. (Refer to the Joint Venture section of the General Instructions)

ANNEX B - DECLARATION/CERTIFICATIONS FORM (CONT'D)

Former Public Servant (FPS) - Certification

Contracts awarded to former public servants (FPS) in receipt of a pension or of a lump sum payment must bear the closest public scrutiny, and reflect fairness in the spending of public funds. In order to comply with Treasury Board policies and directives on contracts awarded to FPS, proponents must provide the information required below before contract award. If the answer to the questions and, as applicable the information required have not been received by the time the evaluation of proposals is completed, Canada will inform the Proponent of a time frame within which to provide the information. Failure to comply with Canada's request and meet the requirement within the prescribed time frame will render the proposal non-responsive.

Definitions

For the purposes of this clause,

"former public servant" is any former member of a department as defined in the *Financial Administration Act*, R.S., 1985, c. F-11, a former member of the Canadian Armed Forces or a former member of the Royal Canadian Mounted Police. A former public servant may be:

(a) an individual;
(b) an individual who has incorporated;
(c) a partnership made of former public servants; or
(d) a sole proprietorship or entity where the affected individual has a controlling or major interest in the entity.

"lump sum payment period" means the period measured in weeks of salary, for which payment has been made to facilitate the transition to retirement or to other employment as a result of the implementation of various programs to reduce the size of the Public Service. The lump sum payment period does not include the period of severance pay, which is measured in a like manner.

"pension" means a pension or annual allowance paid under the *Public Service Superannuation Act* (PSSA), R.S., 1985, c.P-36, and any increases paid pursuant to the *Supplementary Retirement Benefits Act*, R.S., 1985, c.S-24 as it affects the PSSA. It does not include pensions payable pursuant to the *Canadian Forces Superannuation Act*, R.S., 1985, c.C-17, the *Defence Services Pension Continuation Act*, 1970, c.D-3, the *Royal Canadian Mounted Police Pension Continuation Act*, 1970, c.R-10, and the *Royal Canadian Mounted Police Superannuation Act*, R.S., 1985, c.R-11, the *Members of Parliament Retiring Allowances Act*, R.S., 1985, c.M-5, and that portion of pension payable to the *Canada Pension Plan Act*, R.S., 1985, c.C-8.

ANNEX B - DECLARATION/CERTIFICATIONS FORM (CONT'D)

Former Public Servant in Receipt of a Pension

As per the above definitions, is the Proponent a FPS in receipt of a pension?
YES ( ) NO ( )

If so, the Proponent must provide the following information, for all FPS in receipt of a pension, as applicable:

(a) name of former public servant;
(b) date of termination of employment or retirement from the Public Service.

By providing this information, proponents agree that the successful Proponent's status, with respect to being a former public servant in receipt of a pension, will be reported on departmental websites as part of the published proactive disclosure reports in accordance with Contracting Policy Notice: 2012-2 and the Guidelines on the Proactive Disclosure of Contracts.

Work Force Adjustment Directive

Is the Proponent a FPS who received a lump sum payment pursuant to the terms of a work force reduction program? YES ( ) NO ( )

If so, the Proponent must provide the following information:

(a) name of former public servant;
(b) conditions of the lump sum payment incentive;
(c) date of termination of employment;
(d) amount of lump sum payment;
(e) rate of pay on which lump sum payment is based;
(f) period of lump sum payment including start date, end date and number of weeks;
(g) number and amount (professional fees) of other contracts subject to the restrictions of a work force adjustment program.

For all contracts awarded during the lump sum payment period, the total amount of fees that may be paid to a FPS who received a lump sum payment is $5,000, including Applicable Taxes.

ANNEX B - DECLARATION/CERTIFICATIONS FORM (CONT'D)

Name of Proponent:

DECLARATION:

I, the undersigned, being a principal of the proponent, hereby certify that the information given on this form and in the attached proposal is accurate to the best of my knowledge. If any proposal is submitted by a partnership or joint venture, then the following is required from each component entity.

.....	.....
name	signature
.....	
title	

I have authority to bind the Corporation / Partnership / Sole Proprietorship / Joint Venture

.....	.....
name	signature
.....	
title	

I have authority to bind the Corporation / Partnership / Sole Proprietorship / Joint Venture

.....	.....
name	signature
.....	
title	

I have authority to bind the Corporation / Partnership / Sole Proprietorship / Joint Venture

During proposal evaluation period, PWGSC contact will be with the following person:_____.

Telephone Number: ( ) _____ Fax Number: ( ) _____

E-mail: _____

This Annex «B» should be completed and submitted with the proposal, but may be submitted afterwards as follows: if Annex «B» is not completed and submitted with the proposal, the Contracting Authority will inform the Proponent of a time frame within which to provide the information. Failure to comply with the request of the Contracting Authority and to provide the certifications within the time frame provided will render the proposal non-responsive.

ANNEX C – PRICE PROPOSAL FORM

INSTRUCTIONS

1. Complete the price proposal form (Annex C and tables C1 to C8) and submit it in a separate sealed envelope bearing the proponent's name, the solicitation number and the words "Price Proposal".

2. Price proposals must not include Goods and Services Tax or Harmonized Sales Tax and must be quoted in Canadian dollars.

3. Proponents must not alter or amplify the details of this form.

4. In order to ensure that fair and competitive hourly rates are received for each of the positions listed, the following requirements must be met: **proponents must specify an all-inclusive hourly rate for each position listed (refer to clause R1230D CG5.12 (2011-05-16)).** If the firm has fewer personnel than are listed, still provide an all-inclusive hourly rate for each position listed. The all-inclusive hourly rate provided for a given position must be equal to or greater than the rate quoted for the position listed below it. For example, if the firm does not have intermediate personnel, the all-inclusive hourly rate must be equal to or greater than that for subordinate personnel. If the proponent does not enter an all-inclusive hourly rate for each position listed, the proposal will be deemed non-responsive.

5. Proponents must provide a single fixed all-inclusive hourly rate for each personnel category of each subcontractor and specialist.

6. If errors are made in calculating the totals quoted, PSPC will correct the totals to bring them into line.

ANNEX C - PRICE PROPOSAL FORM (CONT'D)

TOTAL COST OF SERVICES FOR PROPOSAL EVALUATION PURPOSES

"Total cost of services" includes all project outlays, without exception, incurred in connection with delivery of the Required Services (RS) and Additional Services (AS).

TOTAL FEES FOR REQUIRED SERVICES (RS)

Carry over here the amount for A-Required Services + B-Required Services $…….....

TOTAL FEES FOR ADDITIONAL SERVICES (AS)

Carry over here the amount for C-Additional Services $…….....

TOTAL FEES ASSESSED (RS+AS)

Carry over here the amount for A-Required Services + B-Required Services + C-Additional Services

$…….…….....

ANNEX C - PRICE PROPOSAL FORM (CONT'D)

IMMIGRATION HOLDING CENTRE PROJECT - LAVAL

Name of proponent: _____

A- REQUIRED SERVICES (RS)

Fees for RS1, RS2, RS3
(R1230D, CG 5 – Payment Arrangements) – Time-based fees

Principals, executives and other personnel approved in that capacity by the Departmental Representative must be paid at the hourly rate specified in the Agreement Particulars clause. Refer to section CG 5.2, Fee Arrangements for Services. Fees will be paid in accordance with the provisions of section CG 5.4, Payment for Services.

TOTAL FEES FOR REQUIRED SERVICES (RS1/RS2) **$…….....**

(Carry over here the total from the grid in Table C1)

TOTAL FEES FOR REQUIRED SERVICES (RS3) **$…….....**

(Carry over here the total from grid C2)

B- REQUIRED SERVICES (RS)

Fees for RS4, RS5, RS6, RS7, RS8, RS9 and RS10
(R1230D, CG 5 – Terms of Payment) – Time-based fees

Principals, executives and other personnel approved in that capacity by the Departmental Representative must be paid at the hourly rate specified in the Agreement Particulars clause. Refer to section CG 5.2, Fee Arrangements for Services. Fees will be paid in accordance with the provisions of section CG 5.4, Payment for Services.

TOTAL FEES FOR REQUIRFD SERVICES (RS4 to RS10)

(Carry over here the total from the grids in tables C4, C5, C6, C7 & C8)

$……

C- ADDITIONAL SERVICES (AS)

Fees for AS1, AS2, AS3, AS4
(R1230D, CG 5 - Terms of Payment) – Time-based fees & fixed fees

Fixed fees may be paid as a fixed lump sum or an amount made up of fixed unit prices multiplied by a number of units of deliverables in accordance with the amounts specified in the Agreement Particulars clause.

For time-based fees, principals, executives and other personnel approved in that capacity by the Departmental Representative must be paid at the hourly rate specified in the Agreement Particulars clause. Refer to section CG 5.2, Fee Arrangements for Services. Fees will be paid in accordance with the provisions of section CG 5.4, Payment for Services.

AS1 Bilingual construction documents (fixed fee) $…….....

AS2 LEED NC Gold accreditation (fixed fee) $……..……..…….....

AS3 Enhanced site surveillance service (time-based fees)

(Carry over the total from grid C3)

$…….....

AS4 Geotechnical analysis and testing services (fixed fee) $…….....

AS4 Functional and technical Program & Project workbook (fixed fee)

$…….....

ANNEX D – DOING BUSINESS WITH QUEBEC REGION

Here-after

ANNEX E – SECURITY REQUIREMENTS

Here-after

SUBMISSION REQUIREMENTS AND EVALUATION

SUBMISSION REQUIREMENTS AND EVALUATION

SRE 1 GENERAL INFORMATION

1.1 Reference to the Selection Procedure

An "Overview of the Selection Procedure" can be found in R1410T General Instructions to Proponents (GI3).

1.2 Calculation of Total Score

For this project, the Total Score will be established as follows:

Technical Rating × 90%	=	Technical Score (Points)
Price Rating × 10%	=	Price Score (Points)
Total Score	=	Max. 100 points

SRE 2 REQUESTS FOR PROPOSAL

2.1 Requirements for Proposal Format

The following proposal format information should be implemented when preparing the proposal:

- Submit one (1) bound original plus [five (5)] bound copies of the proposal;
- Paper size should be 216 mm x 279 mm (8.5" x 11");
- Minimum font size – 11 point Times or equivalent;
- Minimum margins – 12 mm left, right, top and bottom;
- Double-sided submissions are preferred;
- One (1) "page" means one side of a sheet of paper;
- 279 mm x 432 mm (11" x 17") fold-out sheets for spreadsheets, organization charts, etc., will be counted as two pages for each side; and
- The order of the proposals should follow the order established in the Request for Proposal SRE section.

2.2 Specific Requirements for Proposal Format

The maximum number of pages (including text and graphics) to be submitted for the Rated Requirements under SRE 3.2 is [thirty-nine (39)] pages.

The following are not part of the page limitation mentioned above:

- Cover letter;
- Resume appended to proposal;
- Team Identification (Annex A);
- Declaration/Certifications Form (Annex B);
- Integrity Provisions – Required Documentation;
- Front page of the RFP;
- Front page of revision(s) to the RFP;
- Price Proposal Form (Annex C); and
- Pages to identify and separate the criteria/annexes.

Consequence of non-compliance: Any pages that extend beyond the above page limitation and any other attachments will be extracted from the proposal and will not be forwarded to the PWGSC Evaluation Board members for evaluation.

SRE 3 SUBMISSION REQUIREMENTS AND EVALUATION

3.1 Mandatory Requirements

Failure to meet the mandatory requirements will render the proposal non-responsive and no further evaluation will be carried out.

3.1.1 Licensing, Certification or Authorization

The Prime Proponent shall be an Architect who is accredited or eligible to be accredited, certified or authorized to provide the necessary professional services to the full extent that may be required by provincial or territorial law in the province of Quebec.

Sub-Consultants and Specialist Sub-Consultants involved in the project shall be architects, engineers, and/or consultants accredited, certified or authorized to provide the necessary professional services to the full extent that may be required by provincial or territorial law in the Province of Quebec.

3.1.2 Consultant Team Identification

The Consultant's team members must be identified for the following positions (refer to PD8) :

Proponent (Prime Consultant)

1. Architect / Owner;
2. Senior, Intermediate and Junior Architects;
3. Estimating and Quantity Surveying Specialist;
4. LEED
   - must hold professional LEED accreditation; and
   - must have completed at least two (2) LEED certification processes in the past;
5. Commissioning
   - must be independent from the firms represented in the design and construction teams;
   - must hold professional LEED accreditation;
   - must have completed an enhanced commissioning process in the past as part of an LEED certification; and
   - must be from a firm other than that of the Proponent or its engineering Sub-Consultants; and
6. Security hardware
   - specialist.

Key Sub-Consultants and Specialist Sub-Consultants

The mechanical, electrical, structural and civil engineers must be LEED-accredited.

If the Bidder plans to provide multi-disciplinary services that might otherwise be performed by a Sub-Consultant, this should be reflected here.

The Sub-Consultant's team members must be identified for the following positions (refer to PD8):

- Senior Engineers (mechanical, electrical, structural, civil, geotechnical);
- Senior, Intermediate and Junior Engineers;
- Name of firm and key personnel to be assigned to the project;

  For the Prime Consultant, indicate current licences, certifications or authorizations and/or how you intend to meet the provincial or territorial licensing requirements in Quebec, where the project will be carried out; and
  In the case of a joint venture, identify the existing or proposed legal form of the joint venture (refer to R1410T General Instructions to Proponents, GI9 Limitation of Submissions).

An example of an acceptable format (typical) for submission of the team identification information is provided in Annex A.

3.1.3 Declaration/Certifications Form and Other Mandatory Documents to be Provided

Proponents must complete, sign and submit the following:

- Annex B, Declaration/Certifications Form, as required;
- Annex C, Price Proposal Form – Hourly Rate (in a separate envelope);
- The proposed team's LEED accreditation;
- A minimum of 3 comparable projects which are similar to the one presented in the current RFP;
- Project Schedule for the project presented in the current RFP (see 3.2.8).

3.1.4 Integrity Provisions – Required Documentation

In accordance with the Ineligibility and Suspension Policy (http://www.tpsgc-pwgsc.gc.ca/ci-if/politique-policy-eng.html), the Proponent must provide, **as applicable**, to be given further consideration in the procurement process, the required documentation as per R1410T (2016-04-04), General Instructions 1 (GI1), Integrity Provisions – Proposal, **section 3a**.

Bidders who are incorporated, including those bidding as a joint venture, must provide with their bid or promptly thereafter a complete list of names of all individuals who are currently directors of the Bidder. Bidders bidding as sole proprietorship, including those bidding as a joint venture, must provide with their bid or promptly thereafter the name of the owner. Bidders bidding as corporations, firms, partnerships or associations of persons do not need to provide lists of names. If the required names have not been received by the time the evaluation of bids is completed, Canada will inform the Bidder of a time frame within which to provide the information. Failure to comply will render the bid non-responsive. Providing the required names is a mandatory requirement for contract award.

3.2 RATING REQUIREMENTS

3.2.1 Achievements of Proponent on Projects

Describe the Proponent's accomplishments, achievements and experience as Prime Consultant on similar projects.

Choose three projects undertaken and completed between January 2007 and April 2017. Joint venture submissions are not to exceed the maximum number of projects. Only the first three projects listed in sequence will receive consideration and any others will receive none as though not included.

Information that must be supplied for each project presented:

- Identification of project;
- Title and location of project;
- Execution period;
- Reference: The name of the Client and of the Client's representative as well as their telephone numbers. Note that the information provided for these references may be verified;
- Clearly indicate how this project is comparable/relevant to the project covered by the RFP;
- Purpose and brief description of the project. Narratives should include a discussion of the design philosophy/approach to meet the intent and design challenges and resolutions:
    - The design review and construction monitoring process;
    - The design management, construction supervision management and commissioning process;
    - The LEED certification process;
    - The approval process; and
    - The challenges and constraints in terms of design, construction supervision and commissioning;
- Clearly written description of the services provided by the Proponent;
- Budget control and management;
- Budget control and management, i.e., contract prices and final construction costs; explain variances;
- Amount of Proponent's fees;
- Project schedule control and management – i.e., initial schedule and revised schedule – explain variation;
- Names of key personnel responsible for each project; and
- Any awards received.

The Proponent (as defined in R1410T General Instructions to Proponents, GI2 Definitions) must possess the experience and expertise on the above projects. Past project experience from entities other than the Proponent will not be considered in the evaluation unless these entities form part of a joint venture Proponent.

Please indicate those projects which were carried out in joint venture and the responsibilities of each of the involved entities in each project. In this case, specify the percentage of contribution to this project and explain the contribution to this project.

3.2.2 Achievements of Key Sub-Consultants and Specialist Sub-Consultants on Projects

Describe the accomplishments, achievements and experience of the Key Sub-Consultants and Specialists as Prime Consultant or Sub-Consultant on projects. If the Proponent proposes to provide services in multiple fields that could normally be provided by a Sub-Consultant, that must be indicated here.

Select three projects undertaken and completed from January 2007 to April 2017 by the Key Sub-Consultants or the Specialists. Only the first three (3) projects listed in sequence (by Sub-Consultant or Specialist) will receive consideration and any others will receive none as though not included.

Information that must be supplied for each project presented:

- Identification of project;
- Title and location of project;
- Execution period;
- Reference: The name of the Client and of the Client's representative as well as their telephone numbers. Note that the information provided for these references may be verified;
- Clearly indicate how this project is comparable/relevant to the project covered by the RFP;
- Purpose and brief description of the project. Narratives should include a discussion of the design philosophy/approach to meet the intent and design challenges and resolutions:
    - The design review and construction monitoring process;
    - The design management, construction supervision management and commissioning process;
    - The Gold-level LEED certification process;
    - The approval process; and
    - The challenges and constraints in terms of design, construction supervision and commissioning;
- Clearly written description of the services provided by the Proponent;
- Budget control and management;
- Budget control and management, i.e., contract prices and final construction costs; explain variances;
- Amount of Proponent's fees;
- Project schedule control and management – i.e., initial schedule and revised schedule – explain variation;
- Names of key personnel responsible for each project; and
- Any awards received.

3.2.3 Achievements of Key Personnel on Projects

Describe the experience, skills and abilities of key personnel to be assigned to this project, regardless of their past association with the current Proponent's firm. This is an opportunity to emphasize the strengths of the team members and highlight their past responsibilities, commitments and achievements.

The following information must be provided for each key person of the Prime Proponent and the Key Sub-Consultants / Specialist Sub-Consultants:

- Resource's designation for the purposes of this project (key person concerned);
- Resource name;
- Education;

- Number of years of experience (total);
- Number of years working for the Proponent;
- Professional qualifications and or professional association/order including the year registered;
- Field(s) of specialization;
- Number of LEED projects completed;
- The resource's relevant experience and expertise;
- Accomplishments/achievements/awards; and
- Role, responsibility and degree of involvement of individual in past projects. For each of the three (3) projects undertaken and completed from January 2007 to April 2017, the information shall include the following elements in particular:
    - Project identification (title);
    - Project location;
    - Client's name and client representative's name;
    - Date/period of execution (if the project is not completed, indicate the percentage of completion);
    - Estimated amount of fees for services performed;
    - Key person's duties, responsibilities and degree of participation; and
    - Activities and achievements in the project.

3.2.4 Understanding of the Project

The Proponent must demonstrate understanding of the goals of the project, the functional/technical requirements, the constraints and the issues that will shape the end product.

Information that must be supplied:

- The functional and technical requirements;
- Broader goals (federal image, sustainable development, sensitivities);
- The relationship between this mandate and any earlier studies completed for PWGSC;
- Significant issues, challenges and constraints;
- Issues that will shape the end product;
- Identifying the project risks;
- Project schedule and cost. Review schedule and cost information; identify and assess risk management elements that may affect the project;
- The client user's philosophies and values; and
- Understanding of roles and responsibilities (a description and organizational chart).

3.2.5 Scope of Services

The Proponent must demonstrate capability to perform the services and meet project challenges and to provide a plan of action.

Information that must be supplied:

- Scope of services – detailed list of services to be provided by the Proponent;
- Work plan – detailed breakdown of work tasks and deliverables to be completed by discipline/key person;
- Project schedule – proposed major milestone schedule; and
- Risk management strategy associated with the services to be provided, including available resources, compliance with schedules, service continuity, and fulfilment of duties and responsibilities.

3.2.6 Management of Services

The Bidder must describe the following:

- How the Bidder plans to deliver the services and meet the constraints;
- How services will be managed to ensure continuing and consistent control;
- How services will be managed to ensure production and efficiency of communications;
- Team structure;
- The Bidder's integration into the current structure of the firms;
- Team management method; and
- The Proponent is also to identify the Sub-Consultants and Specialists required to complete the Consultant's team.

If the Bidder plans to provide multi-disciplinary services that might otherwise be performed by a Sub-Consultant, this should be reflected here.

Information that must be supplied:

- Confirmation that a full project team has been formed, including the names of the Consultant, Sub-Consultants and Specialists and their duties and responsibilities in the project;
- Organization chart with position titles and names (Consultant's team) Joint Venture business plan, team structure and responsibilities, if applicable;
- What back-up will be committed;
- Profiles of the key positions (specific assignments and responsibilities);
- Outline of an action plan of the services with implementation strategies and sequence of main activities;
- Reporting relationships;
- Communications strategies; and
- Response time – demonstrate how response time requirements will be met.

3.2.7 Quality and Coordination

For projects presented in sections 3.2.1, 3.2.2 and 3.2.3, the Proponent shall describe, in particular:

- The Proponent's quality assurance philosophy, approach and methodology;
- The major challenges and how the team approach was applied to those particular challenges;
- The methodology used to ensure that the information in the drawings and specifications are of good quality and complete;
- The methodology used to control the coordination of information and requirements among all disciplines involved in the project and to ensure that the documents produced (deliverables) are of good quality; and
- Whether there were claims (from the Contractor and/or the Consultants) for the projects submitted. Indicate the number of changes generated, the cost of these changes and their categories (site conditions, errors or omissions, client changes). (Use a table format, as below.)

Project Name	$ Value of Construction Contract	Claim Yes/No Contractor or Consultants	Nbr of Changes Site Conditions	Nbr of Changes Error/Omission	Nbr of Changes Client Change	$ Value of Changes

3.2.8 Timeline and Risk

For the project related to this current RFP, submit a preliminary Project Schedule indicating all project phases, all tasks and all steps to achieve Gold-level LEED NC certification. Provide the critical path.

Indicate and describe the risks that may affect the project.

3.2.9 Design Philosophy/Approach/Methodology

The Proponent must elaborate on aspects of the project considered to be major challenges and/or risks, which will illustrate that the Proponent's design and quality assurance philosophy/approach/methodology helped mitigate these challenges and/or risks. This is the opportunity for the Proponent to state the overall design philosophy of the team as well as its approach to resolving design issues and in particular to explain in detail the unique aspects of the current project.

Information that must be supplied:

- Describe and explain the design philosophy/approach/methodology;
- Describe the major challenges and how the team approach will be applied to those particular challenges;
- Submit a preliminary detailed Project Schedule that includes the phases RS1-2-3- to RS9 and all of AS. It is necessary to understand the Consultant’s comprehension of the project over time and how the Consultant will manage to meet all the phases; and
- Describe in detail the Prime Proponent's methodology to ensure the quality and the full coordination of the drawings and specifications among all Sub-Consultants and Specialist Sub-Consultants (for all disciplines) in order to ensure client satisfaction.

3.3 EVALUATION AND RATING

In the first instance, price envelopes will remain sealed and only the technical components of the proposals that are responsive will be reviewed, evaluated and rated by a PWGSC Evaluation Board in accordance with the following to establish Technical Ratings:

	Criterion	Weight Factor	Rating	Weighted Rating
3.2.1	Achievements of Proponent	1.0	0–10	0–10
3.2.2	Achievements of Key Sub-Consultants/Specialists	1.0	0–10	0–10
3.2.3	Achievements of Key Personnel	1.0	0–10	0–10
3.2.4	Understanding of the Project	1.0	0–10	0–10
3.2.5	Scope of Services	1.0	0–10	0–10
3.2.6	Service Management	1.0	0–10	0–10
3.2.7	Quality and Coordination of Drawings and Specifications Documents	2.0	0–10	0–20
3.2.8	Timeline and Risk	1.0	0–10	0–10
3.2.9	Design Philosophy/Approach/Methodology	1.0	0–10	0–10
	Technical Rating	10.0		0–100

Generic Evaluation Table

PWGSC Evaluation Board members will evaluate the strengths and weaknesses of the Proponent's response to the evaluation criteria above and will rate each criterion with a score of 0, 2, 4, 6, 8 or 10 points using the generic evaluation table below:

	INADEQUATE	WEAK	ADEQUATE	FULLY SATISFACTORY	STRONG
0 pts	2 pts	4 pts	6 pts	8 pts	10 pts
Did not submit information which could be evaluated	Lacks complete or almost complete understanding of the requirements	Has some understanding of the requirements but lacks adequate understanding in some areas of the requirements	Demonstrates a good understanding of the requirements	Demonstrates a very good understanding of the requirements	Demonstrates expert understanding of the requirements
	Weaknesses cannot be corrected	Generally doubtful that weaknesses can be corrected	Weaknesses can be corrected	No significant weaknesses	No apparent weaknesses
	Proponent does not possess qualifications and experience	Proponent lacks qualifications and experience	Proponent has an acceptable level of qualifications and experience	Proponent is qualified and experienced	Proponent is highly qualified and experienced
	Team proposed is not likely able to meet requirements	Team does not cover all components or overall experience is weak	Team covers most components and will likely meet requirements	Team covers all components – some members have worked successfully together	Strong team – has worked successfully together on comparable projects
	Sample projects not related to this requirement	Sample projects generally not related to this requirement	Sample projects generally related to this requirement	Sample projects directly related to this requirement	Leads in sample projects directly related to this requirement
	Extremely poor, insufficient to meet performance requirements	Little chance of meeting performance requirements	Acceptable capability, should ensure adequate results	Satisfactory capability, should ensure effective results	Above-average ability; should be able to achieve highly effective results

To be considered further, Proponents **must** achieve a minimum Technical Rating of sixty (60) points out of the hundred (100) points available, as specified above.

No further consideration will be given to Proponents not achieving the pass mark of sixty (60) points.

SRE 4 PRICE OF SERVICES

☐ All financial proposal envelopes corresponding to responsive proposals which have achieved the pass mark of sixty (60) points will be opened upon completion of the technical evaluation.

☐ Adding all the price proposals together and dividing the total by the number of price proposals being opened determine an average price.

☐ All price proposals which are greater than twenty-five percent (25%) above the average price will be set aside and receive no further consideration.

☐ The remaining price proposals are rated as follows:
- The lowest price proposal receives a Price Rating of 100.
- The second, third, fourth and fifth lowest prices receive Price Ratings of 80, 60, 40 and 20 respectively. All other price proposals receive a Price Rating of 0.
- On the rare occasion where two (or more) price proposals are identical, these price proposals receive the same rating and the corresponding number of following ratings are skipped.

☐ The Price Rating is multiplied by the applicable percentage to establish the Price Score.

SRE 5 TOTAL SCORE

Total Scores will be established in accordance with the following:

Rating	Possible Range	% of Total Score	Score Items
Technical Rating	0–100	90	0–90
Price Rating	0–100	10	0–10
Total Score		100	0–100

The Proponent receiving the highest Total Score is the first entity that the Evaluation Board will recommend for the provision of the required services. In the case of a tie, the Proponent submitting the lowest price for the services will be selected.

SRE 6 SUBMISSION REQUIREMENTS – CHECKLIST

The following list of documents and forms is provided to help Proponents submit complete bids. The Proponent is responsible for meeting all submission requirements.

Please follow detailed instructions in R1410T General Instructions to Proponents, GI16 Submission of Proposal, as amended in SI2 Proposal Documents. Proponents may append a cover letter to their proposals.

CHECKLIST

- ☐ Proposal – one (1) original plus [five (5)] bound copies;
- ☐ Front page of RFP;
- ☐ Front page(s) of any bid solicitation amendment;
- ☐ Licences, certification or authorization;
- ☐ Team Identification: see typical format in Annex A;
- ☐ Declaration/Certifications Form – provided in Annex B, completed and signed;
- ☐ LEED accreditation;
- ☐ Integrity Provisions – Required Documentation – **as applicable** in accordance with the Ineligibility and Suspension Policy (http://www.tpsgc-pwgsc.gc.ca/ci-if/politique-policy-eng.html) and as per R1410T (2016-04-04), General Instructions 1 (GI1) – Integrity Provisions – Proposal, **section 3a**;
- ☐ Integrity Provisions – Declaration of Convicted Offences – **with its bid, as applicable** in accordance with the Ineligibility and Suspension Policy (http://www.tpsgc-pwgsc.gc.ca/ci-if/politique-policy-eng.html) and as per R1410T (2016-04-04), General Instructions 1 (GI1) – Integrity Provisions – Proposal, **section 3b**;

- ☐ Achievements of Proponent;
- ☐ Achievements of Key Sub-Consultants/Specialists;
- ☐ Achievements of key personnel;
- ☐ Understanding of the project;
- ☐ Scope of services;
- ☐ Service management;
- ☐ Quality and coordination;
- ☐ Detailed Project Schedule and risk description and
- ☐ Description of design philosophy/approach/methodology.

In a separate envelope:

- ☐ Price Proposal Form: one (1) completed copy submitted in a separate envelope.

Consultant Services Mandate

Description of Project (PD)
Description of Services - Required Services (RS)
Description of Services - Additional Services (AS)
Appendices

Here-after

Public Works and Government Services Canada

Travaux publics et Services gouvernementaux Canada

Canada

Respect • Integrity • Excellence • Leadership

Serving GOVERNMENT, Serving CANADIANS.

Doing Business
Quebec Region

Architectural and Engineering Services

May 1st, 2013 – GDDE # 721745

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TABLE OF CONTENTS

Appendices

SECTION 1 INTRODUCTION

This document must be used in conjunction with the Terms of Reference TOR (Project brief, Request for proposals or others), as the two documents are complimentary. The TOR describes project-specific requirements while this document deals with information common to all projects. In case of a conflict between the two documents, the requirements of the TOR override this document.

The Consultant shall check with the Project Manager if this document is current. The updated version of the latest is the one applicable to the project.

SECTION 2 PWGSC NATIONAL CADD STANDARD

Drawings shall be in accordance with Public Works and Government Services Canada (PWGSC) National CADD Standards, **Quebec regional version**, and CSA B78.3 of Canadian Standards Association.

Refer to:
http://www.tpsgc-pwgsc.gc.ca/biens-property/cdao-cadd/index-eng.html

For the Quebec region:
http://www.tpsgc-pwgsc.gc.ca/cdao-cadd/index-eng.html

The above link is subject to change. The Consultant shall check with the Project Manager to ensure that the link and related information are current and relevant with regards to PWGSC National CADD Standards **for the Quebec region.**

SECTION 3 - GUIDE TO PREPARATION OF CONSTRUCTION DOCUMENTS FOR PWGSC

1 Purpose

This document provides direction in the preparation of construction contract documents (namely specifications, drawings and addenda) for Public Works and Government Services Canada (PWGSC).

Drawings, specifications and addenda must be complete and clear, so that a contractor can prepare a bid without guesswork. Standard practice for the preparation of construction contract documents requires that:

- Drawings are the graphic means of showing work to be done, as they depict shape, dimension, location, quantity of materials and relationship between building components.
- Specifications are written descriptions of materials and construction processes in relation to quality, colour, pattern, performance and characteristics of materials, installation and quality of work requirements.
- Addenda are changes to the construction contract documents or tendering procedures, issued during the tendering process.

2 Principles of PWGSC Contract Documents

PWGSC's contract documents are based on common public procurement principles. PWGSC does not use Canadian Construction Document Committee (CCDC) documents.

The terms and conditions are prepared and issued by PWGSC as well as other related bidding and contractual documents. For information, the clauses are available on the following web site: http://ccua-sacc.tpsgc-pwgsc.gc.ca/pub/tmtc-eng.jsp
Any questions should be directed to the Project Manager.

3 Quality Assurance

Consultants are required to undertake their own quality control process and must review, correct and coordinate (between disciplines) their documents before sending them to PWGSC.

SPECIFICATIONS

1 National Master Specification

The National Master Specification (NMS) is a master construction specification available in both official languages, which is divided into 48 Divisions and used for a wide range of construction and/or renovation projects. In preparing project specifications, the Consultant must use the current edition of the NMS in accordance with the “NMS User’s Guide”.

The Consultant retains overriding responsibility for content and shall edit, amend and supplement the NMS as deemed necessary to produce an appropriate project specification free from conflict and ambiguity.

2 Specification Organization

Narrowscope sections describing single units of work are preferred for more complex work, however, broadscope sections may be more suitable for less complex work. Use either the NMS 1/3 - 2/3 page format or the Construction Specifications Canada full-page format.

Start each Section on a new page and show PWGSC Project Number, Section Title, Section Number and Page Number on each page. Specification date, project title, and consultant’s name are not to be indicated.

3 Terminology

Use the term "Departmental Representative" instead of Engineer, PWGSC, Owner, Consultant or Architect. "Departmental Representative" means the person designated in the Contract, or by written notice to the Contractor, to act as the Departmental Representative for the purposes of the Contract, and includes a person, designated and authorized in writing by the Departmental Representative to the Contractor.

Notations such as: "verify on site", "as instructed", “to match existing”, “example”, “equal to” or “equivalent to”, "to be determined on site by “Departmental Representative", should not be indicated in the specifications as this promotes inaccurate and inflated bids. Specifications must permit bidders to calculate all quantities and bid accurately. In exceptional cases, if quantities are impossible to identify (i.e. cracks to be repaired) give an estimated quantity for bid purposes (unit prices). Ensure that the terminology used throughout the specifications is consistent and does not contradict the applicable standard construction contract documents.

4 Dimensions

Dimensions are to be in metric only (no dual dimensioning).

5 Standards

As references in the NMS may not be up to date, it is the responsibility of the consultant to ensure that the project specification uses the latest applicable edition of all references quoted. The following is a list of some of the Internet websites which provide the most current publications of standards for reference in the construction specification document.

- CSA standards: http://www.csa.ca
- CGSB standards: http://www.tpsgc-pwgsc.gc.ca/ongc-cgsb/index-eng.html
- ANSI standards: http://www.ansi.org
- ASTM Standards: http://www.astm.org
- ULC standards: http://www.ulc.ca
- General reference of standards: http://www.techstreet.com/

The NMS website (http://www.tpsgc-pwgsc.gc.ca/biens-property/ddn-nms/index-eng.html) also links to other documents references in the NMS under its "Links" feature.

6 Specifying Materials

The practice of specifying actual brand names, model numbers, etc., is against departmental policy except for special circumstances. The method of specifying materials shall be by using recognized standards such as those produced by Canadian Gas Association (CGA), Canadian General Standards Board (CGSB), Canadian Standards Association (CSA), and Underwriters' Laboratories of Canada (ULC), or by trade associations such as Canadian Roofing Contractors' Association (CRCA) and Terrazzo, Tile, Marble Association of Canada (TTMAC). Canadian standards should be used wherever possible.

If the above method cannot be used and where no standards exist, specify by a non-restrictive, non-trade name “prescription" or "performance" specifications.

In exceptional or justifiable circumstances or, if no standards exist and when a suitable non-restrictive, non-trade name “prescription” or “performance” specification cannot be developed, specify by trade name. Include all known materials acceptable for the purpose intended, and in the case of equipment, identify by type and model number.

Acceptable Materials: set up the paragraph format as follows:

Acceptable Materials:

1. ABC Co. Model [_____].
2. DEF Co. Model [_____].
3. GHI Co. Model [_____].
4. Alternative Materials: Approved by addendum in accordance with Instructions to Tenderers.

Alternatively, include the following article in Part 1 of each Section in which trade names appear:

Acceptable Materials*: Where materials are specified by trade name refer to the “Instructions to Tenderers” for a procedure to be followed in applying for approval of alternatives.*

Alternative materials to those specified may be considered during the solicitation period, however, the onus will be on the Consultant to review and evaluate all requests for approval of alternative materials.

The term “Acceptable Manufacturers” should not be used, as this restricts competition and does not ensure the actual material or product will be acceptable. A list of words and phrases that should be avoided is included in the NMS User's Guide.

Sole Sourcing: Sole sourcing for materials and work can be used for proprietary systems (ie. fire alarm systems, EMCS – Energy Monitoring and Control Systems). A justification will be required in this context.

Wording for the sole source of work should be in Part 1 as:

“Designated Contractor

.1 Hire the services of [_____] to do the work of this section.”

Wording for the sole source of Energy Monitoring and Control Systems (EMCS) should be in Part 1 as:

“Designated Contractor

.1 Hire the services of [_____] or its authorized representative to complete the work of all EMCS sections.”

and in Part 2 as “Materials

.1 There is an existing [_____] system presently installed in the building. All materials must be selected to ensure compatibility with the existing [_____] system.

Wording for the sole source of materials (ie. fire alarm systems) should be in Part 2 as:

“Acceptable materials

.1 The only acceptable materials are [_____] .”

Prior to including sole source materials and/or work, the Consultant should contact the Project Manager to obtain the approval for the sole sourcing.

7 Unit Prices

Unit prices are used where the quantity cannot be precisely estimated (eg. earth work). The approval of the Project Manager must be sought in advance of their use.

Use the following wording:

[The work for this section] or [define the specific work if required, e.g. rock excavation] will be paid based on the actual quantities measured on site and the unit prices stated in the Bid and Acceptance Form.

In each applicable NMS section, replace paragraph title "Measurement for Payment" with "Unit Prices”.

Refer to Appendix 1 of the Bid and Acceptance Form to view a sample of Unit Price Table.

8 Cash Allowances

Construction contract documents should be complete and contain all of the requirements for the contractual work. Cash allowances are to be used only under exceptional circumstances (ie. utility companies, municipalities), where no other method of specifying is appropriate. Obtain approval from the Project Manager in advance to include cash allowances and then use “Section 01 21 00 - Allowances” of the NMS to specify the criteria.

9 Warranties

It is the practice of PWGSC to have a 12 month warranty and to avoid extending warranties for more than 24 months. When necessary to extend beyond the 12 month warranty period provided for in the General Conditions of the contract, use the following wording in Part 1 of the applicable technical sections, under the heading "Extended Warranty":

- "For the work of this Section [_____], the 12 month warranty period is extended to 24 months.

- Where the extended warranty is intended to apply to a particular part of a specification section modify the above as follows: "For [_____] the 12 month ... [_____] months."

Delete all references to manufacturers' guarantees.

10 Scope of Work

No paragraphs noted as "Scope of Work" are to be included.

11 Summary and Section Includes in Part -1 General of Section

Do not use the terms "Summary" and "Section Includes."

12 Related Sections

In every section of the specification at 1.1 "Related Sections": coordinate the list of related sections and appendices. Ensure co-ordination among the sections of the specification and ensure not to reference any section or appendices which do not exist.

13 Index

List all the plans and specification sections with correct number of pages, section names and correct drawing titles in the format shown in Appendix C.

14 Regional requirements

The Consultant should contact the Project Manager to obtain the regional requirements concerning Division 01 or other short form specifications as might be appropriate. For example, in the Quebec Region, the use of the *Section 01 11 01 – Work related general information* is necessary.

15 Health and Safety

It is required that all project specifications include "Section 01 35 29.06 - Health and Safety Requirements." Confirm with the Project Manager to determine if there are any instructions to meet regional requirements.

16 Designated Substances Report

Include "Section 01 14 25 - Designated Substances Report"

17 Subsurface Investigation Reports

Subsurface Investigation Report(s) are to be included after Section 31 and the following paragraph should be added to Section 31:

Subsurface investigation report(s)

.1 Subsurface investigation report(s) are included in the specification following this section.

When the Project Manager determines that it is not practical to include the subsurface investigation report(s), alternate instructions will be provided.

Where tender documents are to be issued in both official languages, the subsurface investigation report(s) shall be issued in both languages.

In addition to the provision of the Subsurface Investigation Report, the foundation information required by the National Building Code of Canada 2005 (Division C, Part 2, 2.2.4.6) shall be included on foundation drawings.

18 Experience and Qualifications

Remove experience and qualification requirements from specification sections.

19 Prequalification and Pre-award submissions

Do not include in the specification any mandatory contractor and/or subcontractor prequalification or pre-award submission requirements that could become a contract award condition. If a prequalification process or a pre-award submission is required, contact the Project Manager.

There should be no references to certificates, transcripts or license numbers of a trade or subcontractor being included with the bid.

20 Contracting Issues

Specifications describe the workmanship and quality of the work. Contracting issues should not appear in the specifications. Division 00 of the NMS is not used for PWGSC projects.

Remove all references within the specifications, to the following:

- General Instructions to Bidders
- General Conditions
- CCDC documents
- Priority of documents
- Security clauses
- Terms of payment or holdback
- Tendering process
- Bonding requirements
- Insurance requirements
- Alternative and separate pricing
- Site visit (Mandatory or Optional)
- Release of Lien and deficiency holdbacks

DRAWINGS

1 Title Blocks
Use PWGSC title block for drawings and sketches (including addenda).

2 Dimensions
Dimensions are to be in metric only (no dual dimensioning).

3 Trade Names
Trade names on drawings are not acceptable. Refer to SECTION 3, SPECIFICATIONS, 6.0 Specifying Materials for specifying materials by trade name.

4 Specification Notes
No specification type notes are to appear on any drawing.

5 Terminology
Use the term "Departmental Representative" instead of Engineer, PWGSC, Owner, Consultant or Architect. "Departmental Representative" means the person designated in the Contract, or by written notice to the Contractor, to act as the Departmental Representative for the purposes of the Contract, and includes a person, designated and authorized in writing by the Departmental Representative to the Contractor.

Notes such as: "verify on site", "as instructed", “to match existing”, “example”, “equal to” or “equivalent to”, "to be determined on site by “Departmental Representative", should not appear on drawings as this promotes inaccurate and inflated bids. Drawings must allow bidders to calculate all quantities and bid accurately. In exceptional cases, where quantities are impossible to quantify (i.e. cracks to be repaired), refer to indications contained in section 3, Specifications, 3 Terminology.

6 Information to be included
Drawings should show the quantity and configuration of the project, the dimensions and details of how it is constructed. There should be no references to future work or any information planned to be changed by future addenda. The scope of work should be clearly detailed and elements not in contract should be eliminated or kept to an absolute minimum.

7 Drawing Numbers: Sets of drawings shall be numbered according to the type of drawing and the discipline involved, as indicated in the PWGSC NATIONAL CADD STANDARD.

During the Design Phase of the project each issue and review of documents must be noted on the Notes block of the drawing title, but at the time of construction document preparation, all revision notes should be removed.

8 Presentation Requirements: Present drawings in sets comprising the applicable civil, architectural, structural, mechanical and electrical drawings in that order. All drawings should be of uniform standard size.

9 Prints: Print with black lines on white paper. Confirm with Project Manager the size of prints to be provided for review purposes.

10 **Binding:** Staple or otherwise bind prints into sets. Where presentations exceed 20 sheets, the drawings for each discipline may be bound separately for convenience and ease of handling.

11 **Legends:** Provide a legend of symbols, abbreviations, references, etc., on the front sheet of each set of drawings or, in large sets of drawings, immediately after the title sheet and index sheets.

12 **Schedules:** Where schedules occupy entire sheets, locate them on top of each set of drawings for convenient reference. *See CGSB 33-GP-7 Architectural Drawing Practices for schedule arrangements.*

13 **North Points:** On all plans include a north point. Orient all plans in the same direction for easy cross-referencing. Wherever possible, lay out plans so that the north point is at the top of the sheet.

14 **Drawing Symbols:** Follow generally accepted drawing conventions, understandable by the construction trades, and in accordance with PWGSC publications.

ADDENDA

1 Format

Prepare addenda using the format shown in Appendix B. No signature type information is to appear.

Every page of the addendum (including attachments) must be numbered consecutively. All pages must have the PWGSC project number and the appropriate addendum number. Sketches shall appear in the PWGSC format, signed and sealed.

No Consultant information (name, address, phone #, consultant project # etc.) should appear in the addendum or its attachments (except on sketches).

2 Content

Each item should refer to an existing paragraph of the specification or note/detail on the drawings. The clarification style is not acceptable.

DOCUMENTS FOR TENDER CALLS

1 Translation

When required, all documentation included in the construction contract documents shall be in both official languages.

Ensure that English and French documents are equal in all respects. There can be no statement that one version takes precedence over the other.

2 Consultant shall provide:

- Per construction document submission, a completed and signed Checklist for the Submission of Construction Documents. See Appendix 'A'.
- Specification: originals printed one side on 216 mm x 280 mm white bond paper.
- Index: as per Appendix 'C'
- Addenda (if required): as per Appendix 'B' (to be issued by PWGSC).
- Drawings: reproducible originals, sealed and signed by the design authority.
- Tender information:
  - Including a description of all units and estimated quantities to be included in unit price table.
  - Including a list of significant trades including costs. PWGSC will then determine which trades, if any, will be tendered through the Bid Depository.

    Government Electronic Tendering System (MERX): Consultants to provide an electronic true copy of the final documents (specifications and drawings) on one or multiple CD-ROM in Portable Document Format (PDF) without password protection and printing restrictions. The electronic copy of drawings and specifications for bidding and construction purposes are required to be signed and sealed by professionals in each discipline. See Appendix 'D' and Appendix 'E'.

3 PWGSC shall provide:

- General and Special Instructions to Bidders
- Bid and Acceptance Form
- Standard Construction Contract Documents

SECTION 4 CLASSES OF CONSTRUCTION COST ESTIMATES USED BY PWGSC

DESCRIPTION OF THE CLASSES OF ESTIMATES USED BY PWGSC FOR CONSTRUCTION COSTING OF BUILDINGS PROJECTS

Class 'D' (Indicative) Estimate:

Based upon a comprehensive statement of requirements, and an outline of potential solutions, this estimate is to provide an indication of the final project cost, and allow for ranking all the options being considered.

Submit Class D cost estimates in elemental cost analysis format latest edition issued by the Canadian Institute of Quantity Surveyors with cost per m² for current industry statistical data for the appropriate building type and location. Include a summary in the cost estimate, plus full back up, showing items of work, quantities, unit prices, allowances and assumptions.

The level of accuracy of a class D cost estimate shall be such that no more than a 20% design contingency allowance is required.

Class 'C' Estimate:

Based on a comprehensive list of requirements and assumptions including a full description of the preferred schematic design option, construction/design experience, and market conditions. This estimate must be sufficient for making the correct investment decision.

Submit Class C cost estimates in elemental cost analysis format latest edition issued by the Canadian Institute of Quantity Surveyors with cost per m² for current industry statistical data for the appropriate building type and location. Include a summary in the cost estimate, plus full back up, showing items of work, quantities, unit prices, allowances and assumptions.

The level of accuracy of a class C cost estimate shall be such that no more than a 15% design contingency allowance is required.

Class 'B' (Substantive) Estimate:

Based on design development drawings and outline specifications which include the design of all major systems and subsystems, as well as the results of all site/installation investigations. This estimate must provide for the establishment of realistic cost objectives and be sufficient to obtain effective project approval.

Submit Class B cost estimates in elemental cost analysis format latest edition issued by the Canadian Institute of Quantity Surveyors. Include a summary in the cost estimate, plus full back up, showing items of work, quantities, unit prices, allowances and assumptions.

The level of accuracy of a class B cost estimate shall be such that no more than a 10% design contingency allowance is required.

Class 'A' (Pre-Tender) Estimate:

Based on completed construction drawings and specifications, prepared prior to calling competitive tenders. This estimate must be sufficient to allow a detailed reconciliation/negotiation with any contractor's tender.

Submit Class A cost estimates in both elemental cost analysis format and trade divisional format latest edition issued by the Canadian Institute of Quantity Surveyors. Include a summary in the cost estimate, plus full back up, showing items of work, quantities, unit prices, allowances and assumptions.

The level of accuracy of a class A cost estimate shall be such that no more than a 5% design contingency allowance is required.

SECTION 5 TIME MANAGEMENT

5 Time Management, Planning, and Control

The Time Management, Planning, and Control Specialist (scheduler) shall provide a Project Planning and Control System (Control System) for Planning, Scheduling, Progress Monitoring and Reporting and a Time Management, Planning, and Control Report (Progress Report). It is required that a fully qualified and experienced Scheduler play a major role in providing services in the development and monitoring of the project schedule.

The scheduler will follow good industry practices for schedule development and maintenance as recognized by the Project Management Institute (PMI).

PWGSC presently utilizes the Primavera Suite software and MicroSoft Project for it's current Control Systems and any software used by the consultant should be fully integrated with these, using one of the many commercially available software packages.

5.1 Schedule Design

Project Schedules are used as a guide for execution of the project as well as to communicate to the project team when activities are to happen, based on network techniques using Critical Path Method (CPM).

When building a Control System you must consider:

1. The level of detail required for control and reporting;
2. The reporting cycle- monthly and what is identified in the Terms of Reference, but also includes Exception Reports;
3. That the duration must be in days;
4. What is required for reporting in the Project Teams Communications Plan and
5. The nomenclature and coding structure for naming and reporting requirements of activities, schedules and reports.

5.2 Schedule Development

For purposes of monitoring and reporting of project progress and ease of schedule review it is important to maintain a standard for all schedules and reports starting with the Work Breakdown Structure (WBS), identification of Milestones, naming of activities as well as schedule outputs and paper sizing and orientation.

Work Breakdown Structure

When developing the schedule the consultant needs to use PWGSC standards and practices. Two basic requirements are the National Project Management System (NPMS) and a Work Breakdown Structure (WBS), structured supporting the NPMS (Levels 1-4).

The WBS is as follows:

- Level 1 Project Title (NPMS)
- Level 2 Project Stage (NPMS)
- Level 3 Project Phase (NPMS)
- Level 4 Processes to meet Deliverables/Control Points Milestones (NPMS)
- Level 5 Sub-Processes and Deliverables in support of Level 4
- Level 6 Discrete activities. (Work Package)

Not all the Stages, Phases and Processes in the NPMS will be required on all the projects, however the structure remains the same.

Major and Minor Milestones

The Major Milestones are standard Deliverables and Control Points within NPMS and are required in all schedule development. These Milestones will be used in Management Reporting within PWGSC as well as used for monitoring project progress using Variance Analysis. The Minor milestones are process deliverables (Level 4) or sub-process deliverables (level 5) also used in Variance Analysis.

Each Milestone will also be assigned appropriate coding for Status Reporting and Management Reporting.

Milestones must have zero duration and are used for measuring project progress.

Milestones may also be external constraints such as the completion of an activity, exterior to the project, affecting the project.

Activities

All activities will need to be developed based on Project Objectives, Project Scope , Major and Minor Milestones, meetings with the project team and the scheduler's full understanding of the project and it's processes.

Subdivide the elements down into smaller more manageable pieces that organize and define the total scope of work in Levels 5-6 that can be scheduled, costed, monitored and controlled. This process will develop the Activity List for the project.

Each activity is a discrete element of work and is the responsibility of one person to perform.

Each activity will describe the work to be performed using a verb and noun combination (i.e. Review Design Development Report).

Activities should not have durations longer that 2 update cycles, with exception of activities not yet defined in a “Rolling Wave”.

Each activity will be assigned at WBS level 6 and appropriately coded for Status Reporting and Management Reporting.

These elements will become activities, interdependently linked in Project Schedules.

Project Logic

Once the WBS, Milestones and Activity List have been developed the activities and milestones can be linked in a logical manner starting with a Project Start Milestone. Every activity and milestone must be linked in a logical manner using either a Finish to Start (FS), Finish to Finish (FF), Start to Start (SS) or Start to Finish (SF) relationship. There can be no open-ended activities or milestones.

A Finish to Start (FS) is the preferred relationship.

When developing relationships; avoid the use of lags and constraints in place of activities and logic.

Activity Duration

The activity duration (in days) is the estimated length of time it will take to accomplish a task.

Consideration needs to be taken in how many resources are needed and are available, to accomplish any activity. (Example: availability of Framers during a “Housing Boom”.) Other factors are the type or skill level of the available resources, available hours of work, weather etc.

There will be several types of lists and schedules produced from this process, which will form part of the Progress Report.

Activity List

An Activity List identifies all activities including milestones required to complete the whole project.

Milestone List

A Milestone List identifies all project Major and Minor milestones.

Master Schedule

A Master Schedule is a schedule used for reporting to management at WBS level 4 and 5 that identifies the major activities and milestones derived from the detailed schedule. Cash Flow projections can be assigned at WBS level 5 for monitoring the Spending Plan.

Detailed Project Schedule

A Detailed Project Schedule is a schedule in reasonable detail (down to WBS Level 6 and 7) for progress monitoring and control, this will ensure that the schedule shall be in sufficient detail to ensure adequate planning and control.

5.3 Schedule Review and Approval

Once the scheduler has identified and properly coded all the activities; put them into a logical order and then determined the appropriate durations. The scheduler can then analyze the schedule to see if the milestone dates meet the contractual requirements and then adjust the schedule accordingly by changing durations, resource leveling or changing logic.

When the schedule has been satisfactorily prepared the scheduler can present the detailed schedule to the Project Team for approval and be Baselined. There may be several iterations before the schedule meets with the Project Teams agreement and the contractual requirements.

The final agreed version must be copied and saved as the Baseline to monitor variances for reporting purposes.

5.4 Schedule Monitoring and Control

Once Baselined the schedule can be better monitored, controlled and reports can be produced.

Monitoring is performed by, comparing the baseline activities % complete and milestone dates to the actual and forecast dates to identify the variance and record any potential delays, outstanding issues and concerns and provide options for dealing with any serious planning and scheduling issues in report form.

Analyze and report from early start sequence on all activities due to start, underway, or finished for the complete project.

Thee will be several reports generated from the analysis of the baseline schedule and will form part of the Time Management Report in the Required Services Sections (RS)

Progress Reports

A Progress Report reflects the progress of each activity to the date of the report, any logic changes, both historic and planned, projections of progress and completion the actual start and finish dates of all activities being monitored.

The Progress Report includes:

A Narrative Report, detailing the work performed to date, comparing work progress to planned, and presenting current forecasts. This report should summarize the progress to date, explaining current and possible deviations and delays and the required actions to resolve delays and problems with respect to the Detail Schedule, and Critical Paths.

Narrative reporting begins with a statement on the general status of the project followed by a summarization of delays, potential problems and project status criticality, any potential delays, outstanding issues and concerns and options for dealing with any serious planning and scheduling issues.

A Variance Report, with supporting schedule documentation, detailing the work performed to date, comparing work progress to planned. This report should summarize the progress to date, explaining all causes of deviations and delays and the required actions to resolve delays and problems with respect to the Detail Schedule, and Critical Paths.

A Criticality Report identifying all activities and milestones with negative, zero and up to five days Total Float used as a first sort for ready identification of the critical, or near critical paths through the entire project.

Included in the Progress Report as attachments are: WBS chart, Activity Lists, Milestone Lists, Master Schedules, Detailed Project Schedule

Exception Report

The Scheduler is to provide continuous monitoring and control, timely identification and early warning of all unforeseen or critical issues that affect or potentially affect the project.

If unforeseen or critical issues arise, the Scheduler will advise the Project Manager and submit proposed alternative solutions in the form of an Exception Report.

An Exception Report will include sufficient description and detail to clearly identify:

1. Scope Change: Identifying the nature, reason and total impact of all identified and potential project scope changes affecting the project.
2. Delays and accelerations: Identifying the nature, the reason and the total impact of all identified and potential duration variations.
3. Options Enabling a Return to the project baseline: Identifying the nature and potential effects of all identified options proposed to return the project within baselined duration.

5.5 Standard issue of documents

At each issue of documents or deliverable stage provide a complete and updated Progress Report, the contents of each report will vary with requirements and at each project phase. Typically a Progress Report has:

1. Executive Summary;
2. Narrative Report;
3. Variances Report;
4. Criticality Report;
5. Exception Report (as required)
6. Work Breakdown Structure Chart;
7. Activity List;
8. Milestone List;
9. Master Schedule with Cash Flow Projections;
10. Detail Project Schedule (Network Diagram or Bar Charts);

5.6 Schedule Outputs and Reporting Formats

The sheet sizing and orientation is more a suggestion that a role, changes to the paper format may vary to accommodate the information and column information required.

Progress Reports

Paper Size: Letter
Paper Format: Portrait
Title Format: Project Title; Report Type; Print Date; Data Date; Revision Block
Body Text: Narratives for each report to match other reports generated in the D.S.S.
Variance Report Columns: Activity ID, Activity Name, Planned Finish, Revised Finish, Variance, Activity % Complete,
Criticality Report Columns: Activity ID, Activity Name, Duration, Start, Finish, Activity % Complete, Total Float.

Exception Reports

Paper Size: Letter
Paper Format: Portrait
Title Format: Project Title; Report Type; Print Date; Data Date; Revision
Body Text: Narrative to match other reports generated in the D.S.S.
Paper Size: Letter
Paper Format: Landscape
Title Format: Project Title; Report Type; Print Date; Data Date; Revision
Columns: Activity ID, Activity Name, Duration, Remaining Duration, Start, Finish, Total Float.
Work Breakdown Structure (indent tree):

Paper Size: Letter
Paper Format: Portrait
Columns: WBS Code, WBS Name, Duration, Cost estimate, start and finish dates.
Footer Format: Project Title; Report Type; Print Date; Data Date; Revision Block

Activity Lists

Paper Size: Letter
Paper Format: Portrait
Columns: Activity ID, Activity Name, Start, Finish, Predecessor, Successor.
Footer Format: Project Title; Report Type; Print Date; Data Date; Revision Block

Sort with Early Start, then Early Finish, then Activity ID and with the WBS.

Milestone Lists

Paper Size: Letter
Paper Format: Portrait
Footer Format: Project Title; Report Type; Print Date; Data Date; Revision Block
Columns: Activity ID, Activity Name, Start, Finish.

Sort with Early Start, then Early Finish, then Activity ID and without the WBS.

Master Schedule (Bar Chart)

Paper Size: 11X17
Paper Format: Landscape
Footer Format: Project Title; Report Type; Print Date; Data Date; Revision Block
Columns: Activity ID, Activity Name, Duration, Activity % Complete, Start, Finish, Total Float.

Sort with Early Start, then Early Finish, then Activity ID and with the WBS.

Detailed Project Schedules (Bar Chart)

Paper Size: 11X17
Paper Format: Landscape
Footer Format: Project Title; Report Type; Print Date; Data Date; Revision Block
Columns: Activity ID, Activity Name, Duration, Activity % Complete, Start, Finish, Total Float.

Sort with Early Start, then Early Finish, then Activity ID and with the WBS.

SECTION 6 RISK MANAGEMENT

6.1 DEFINITIONS

Procurement Plan: Formal submission for approval to enter into a contract and composed of a (1) cost estimate of the requirement (including cash allowances, and design, estimating and inflation allowances), (2) a contingency and, (3) an anticipated amendment amount.

Allowances: Additional resources included in an estimate to vcover the cost of known but undefined requirements for an individual activity, work item, account or sub account: design allowance, ecstimating allowance, inflation allowance and other allowances specifically identified are part of a cost estimate

Cash Allowances : a specific amount to be used for specific work item or service.
(a) Cash Allowance Construction: additional resources included in an estimate to cover the cost of known but undefined requirements whose probability of occurrence is high. this allowance is specifically identified in a cost estimate.
(b) Cash Allowance Consultant: additional services included in an estimate to cover the cost of known but undefined requirements whose probability of occurrence is high. this allowance is specifically identified in a cost estimate.

Risk Allowance: Anticipated monetary value of risk events, due to the complexity of the project, market conditions, competitiveness, and timing of project, contingencies are likely to happen and do not form part of cost estimates.

Anticipated Amendments: This is basically the pre-authorization of amending authority to a certain level. Individual contract amendments within this authority must still be approved by the correct level of authority.

The total amount of the Anticipated Amendment to a project cost estimate is determined as the summation of the Expected Monetary Value of risk events reasonably expected to occur during the life cycle of a project.

Risk Management: The art and science of identifying, analyzing, and responding to risk factors throughout the life of a project and in the best interests of its objectives. (PMBOK)

Risk Event: A discrete occurrence that may effect the project for better or worse (i.e. late delivery of a piece of equipment is a “risk event” that may cause a schedule delay).

Probability: The likelihood that an event will occur (i.e. Low, Medium, High).

Impact: The result of the occurrence of an event on the project either positive or negative. (i.e. a schedule delay as a result of late delivery of a piece of equipment may have a high negative impact on a project; increased access to a construction site due to early departure of occupants in an office space may have a positive impact on a project).

The Impact of individual Risk Events can be qualified as low, medium, high or quantified in terms of time, cost (immediate cost or in-service cost (O&M)) or performance.

High risk*: A project (or element of a project) may be assessed as high risk if one or more hazards exist in a significant way and, unless mitigated, would result in probable failure to achieve project objectives.

Medium risk*: A project (or element of a project) may be assessed as medium risk if some hazards exist but have been mitigated to the point that allocated resources and focused risk management planning should prevent significant negative effect on the attainment of project objectives.

Low risk*: A project (or element of a project) should be assessed as low risk if hazards do not exist or have been reduced to the point where routine project management control should be capable of preventing any negative effect on the attainment of project objectives.

**per Treasury Board Secretariat Manuals Chapter 2-2 Project Management*

EMV: Expected monetary value of risk event (i.e. cost or saving to the project if risk event occurs)

6.2 RISK MANAGEMENT CHECKLIST

Probability, impact, over all risk, risk response and risk allowance are to be determined for each item listed below;

Resources External to Project Management Team

- Planning Resources and Performance
  - errors and omissions
  - low accuracy of estimates (allowances)
  - data inadequacies
  - level of liability insurance
  - potential for misinterpretation / misunderstanding of documents
  - planning inexperience
- Construction Resources Required & Performance
  - level of liability insurance
  - design versus execution methods
  - suitability of execution methods to design
  - commissioning issues (start up / turnover difficulties)
  - contractor construction strategy
  - reputation of contractor
  - contractor financial stability
  - contractor inexperience
  - resources obtained less qualified than desired
  - availability / suitability / performance of resource

Project Scope Delivery

- Delivery of Specified Requirement
  - accuracy of client requirements in terms of cost/ schedule / performance / quality and ability to interface with existing environment
  - conflicting client priorities
  - low level of client knowledge

- Unstated Client Requirements
  - completeness of client requirements in terms of cost/ schedule / performance / quality and ability to interface with existing environment
  - restricted working conditions
  - opportunities for changes / positive impact

- Stakeholder Requirements, Stated and Unstated
  - low involvement of user groups in scope of definition
  - interface with existing systems
  - restricted working conditions
  - operational needs

Site / Asset / Building Actual Conditions

- Actual Physical Environment
  - availability / accuracy of as built documentation and existing condition reports
  - high variability / low stability of soils
  - potential for soil contamination
  - presence of hazardous materials
  - availability / access to site
  - presence of other contractors on site
  - climate (winter conditions, rain, wind, water levels)

Government / PWGSC / Client / Context

- Impact on Adjacent Areas Actual
  - impact on adjacent areas (land / tenants/ traffic / operations)

- Impact from External Sources
  - legal lawsuits, patent rights, licensing, etc.
  - political impacts including visibility of project
  - social sensibilities
  - potential strikes
  - market risks
  - bad press (media coverage)

- Impact from Unanticipated Regulatory Change
  - environmental legislation and environmental screening
  - potential changes to Acts, Codes and Regulations
  - municipal building / occupancy permit issues

- Procedures Known
  - suitability of tender documents
  - suitability of contracting method
  - delays in tendering process
  - client internal coordination
  - change order process

- Plan Approval / Design Reviews
  - approvals may be required from Client, PWGSC, Treasury Board, FHBRO, Fire Commissioner, Police, Emergency Services, Municipalities, Cities, etc.
  - absence of Investment Analysis
  - unstable / changing client organization
  - heritage building issues
  - health and safety issues
  - potential for “hold orders”
  - design review delays (client / PWGSC / TBS / other)
  - approval delays (client / PWGSC / TBS / other)

APPENDIX 'A' - Checklist for the issue of Construction Documents to PWGSC

Last updated 2011-07-28

Date:	
Project Title:	**Project Location:**
Project Number:	**Contract Number:**
Consultant's Name:	**PWGSC Project Manager:**
Review Stage: **66%** ☐ 99% ☐ 100% ☐	

Item	Verified by:	Comments:	Action by:
Specifications:			
1 National Master Specifications			
1a The current edition of the NMS has been used.			
2 Specification Organization			
2a Either the NMS 1/3 - 2/3 page format or the Construction Specifications Canada full page format is used.			
2b Each Section starts on a new page and the Project Number, Section Title, Section Number and Page Number show on each page.			
2c Specification date and consultant's name are not indicated.			
3 Terminology			
3a The term Departmental Representative is used instead of Engineer, PWGSC, Owner, Consultant or Architect.			
3b Notations such as: "verify on site", "as instructed", "to match existing", "example", "equal to", "equivalent to" and "to be determined on site by" are not used.			
4 Dimensions			
4a Dimensions are provided in metric only.			
5 Standards			
5a The latest edition of all references quoted is used.			

Item	Verified by:	Comments:	Action by:
Specifications:			
6 Specifications Materials			
6a The method of specifying materials uses recognized standards. Actual brand names and model numbers are not specified.			
6b Identify if non-restrictive, non-trade name "prescription" or "performance" specifications are used.			
6c Indicate if a list of acceptable materials have been used.			
6d The term "Acceptable Manufacturers" is not used.			
6e Indicate if sole sourcing has been used.			
7 Unit Prices			
7a Unit prices are used only for work that is difficult to estimate.			
8 Cash Allowances			
8a Indicate if cash allowances have been used.			
9 Warranties			
9a Indicate if warranties extend more than a 12 or 24 months period.			
9b Manufacturers guarantees are not indicated.			
10 Scope of Work			
10 No paragraphs noted as "Scope of Work" are included.			
11 Summary and Section Includes			
11a In part 1 of section, paragraphs "Summary" and "Section Includes" are not used.			
12 Related Sections			
12a The list of related sections and appendices are coordinated.			
13 Index			
13a The index shows a complete list of drawings and specification sections with the correct number of pages and correct drawing titles and section names.			

Item	Verified by:	Comments:	Action by:
Specifications:			
14 **Regional requirements**			
14a General Instructions are included (Section 01 11 01 for Quebec region).			
15 Health and Safety			
15a Section 01 35 29.06 - Health and Safety Requirements is included.			
16 Designated Substances Report			
16 a Section 01 14 25 - Designated Substances Report is included.			
17 **Subsurface Investigation Reports**			
17a Subsurface Investigation Reports are included in Division 31.			
18 Experience and qualifications			
18a Experience and qualification requirements do not appear in the specification sections			
19 Pre-qualifications			
19a There are no mandatory contractor and/or subcontractor pre-qualification requirements or references to certificates, transcripts or license numbers of a trade or subcontractor being included in the bid.			
20 Contracting Issues			
20a Contracting issues do not appear in the specifications.			
20b Division 00 of the NMS is not used.			
21 Quality Issues			
21a There are no specification clauses with square brackets "[ ]" or lines "__" indicating that the document is incomplete or missing information.			

Item	Verified by:	Comments:	Action By:
Drawings:			
1 Title Blocks			
1a The PWGSC title block is used.			
1b The project information in the title block is coordinated between disciplines.			
2 Dimensions			
2a Dimensions are provided in metric only.			
3 Trade Names			
3a Trade names are not used.			
4 Specification Notes			
4a There is no specification type notes.			
5 Terminology			
5a The term Departmental Representative is used instead of Engineer, PWGSC, Owner, Consultant or Architect.			
5b Notations such as: “verify on site”, “as instructed”, “to match existing”, “example”, “equal to”, “equivalent to” and “to be determined on site by” are not used.			
6 Information to be included			
6a The project quantity and configuration, dimensions and construction details are included.			
6b References to future work and elements not in contract do not appear or are kept to an absolute minimum and clearly marked.			

Item	Verified by:	Comments:	Action By:
Drawings:			
7 ***Respect of PWGSC standards for electronic format***			
7a The electronic format of drawings respects the current CADD standards of PWGSC.			
7b The electronic format of drawings and specifications, in English and French, respects the PWGSC directory structure for electronic tender documents.			

I confirm that the plans and specifications of all disciplines have been thoroughly reviewed and that the items listed above have been addressed or incorporated. I acknowledge and accept that by signing certifying that all items noted above have been addressed, should it be found during the tendering of these documents or implementation of the project, that the items above were not properly addressed, my firm will be responsible to resolve all related issues at my firm's expense and may receive an unsatisfactory consultant performance evaluation which could have an impact on my firm's ability to obtain work from PWGSC in the future.

Consultant's Representative: _____

Firm name: _____

Signature: _____ Date: _____

APPENDIX 'B' - Sample of Addendum
Last updated April 22, 2008

ADDENDUM No. _____

Project Number: _____

The following changes in the bid documents are effective immediately. This addendum will form part of the contract documents

DRAWINGS

SPEC NOTE: indicate drawing number and title, then list changes or indicate revision number and date, and re-issue drawing with addendum.

1 A1 Architectural

.1

SPECIFICATIONS

SPEC NOTE: indicate section number and title.

1 Section 01 11 01 – Work related general information

SPEC NOTE: list all changes (i.e. delete, add or change) by article or paragraph

.1 Delete article (xx) entirely.
.2 Refer to paragraph (xx.x) and change ...

2 Section 23 05 00 - Common Work Results - Mechanical

.1 Add new article (x) as follows:

APPENDIX 'C' - Sample of Index for Drawings and Specifications
Last updated April 22, 2008

Project No: _____ **Index**
Page 1 of ___

DRAWINGS AND SPECIFICATIONS

SPECIFICATIONS:

SPEC NOTE: List all Divisions, Sections (by number and title) and number of pages.

DIVISION	SECTION	NO. OF PAGES
DIVISION 01	01 11 01 – Work related general information.....	xx
	01 14 25 - Designated Substances Report.....	xx
	01 35 29.06 - Health and Safety.....	xx
DIVISION 23	23 xx xx	
DIVISION 26	26 xx xx	

DRAWINGS:

SPEC NOTE: List all Drawings by number and title.

C-1	Civil and landscaping
A-1	Architectural
S-1	Structural
M-1	Mechanical
E-1	Electrical

APPENDIX 'D'

USER MANUAL ON DIRECTORY STRUCTURE AND NAMING CONVENTION STANDARDS FOR CONSTRUCTION TENDER DOCUMENTS ON CD ROM

Issued by:

Real Property Contracting Directorate

PWGSC

May 2005

Last Updated: June 3, 2008

Version 1.0

PREFACE

The Government of Canada (GoC) has committed to move towards an electronic environment for the majority of the services it offers. This covers the advertisement and distribution of contract opportunities, including construction solicitations. As a result, it is now necessary to obtain a copy of construction drawings and specifications (in PDF format ***without*** password protection) on one or multiple CD-ROM to facilitate for the GoC the transfer of the construction drawings and specifications electronically to the Government Electronic Tendering System (GETS).

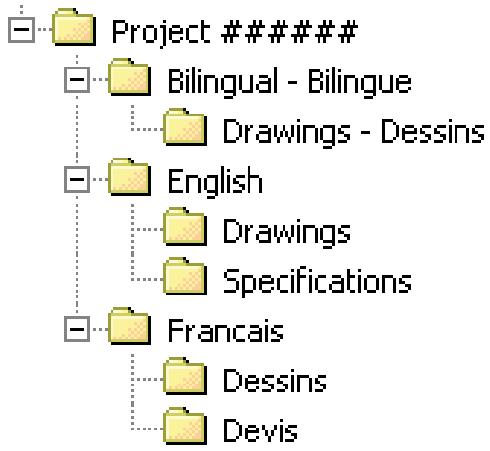
There is therefore a need to adopt a common directory structure and file-naming convention to ensure that the information made available to contractors electronically and in hard (printed) copy is in accordance with the sequence adopted in the real property industries, both for design and construction. This manual defines the standard to be followed by both consultants and print shops at time of formatting and organizing the information, whether drawings and specifications are created by scanning print documents or saved as PDF files from the native software (AutoCAD, NMS Edit, MS-Word, etc…) in which these were created.

It is important to note that the procedure described in this manual is not an indication that consultants are relieved from following the established standards for the production of drawings and specifications. The sole purpose of this manual is to provide a standard for the organization and naming of the electronic files that will be recorded on CD-ROM.

1. DIRECTORY STRUCTURE

1.1 1st, 2nd and 3rd Tier Sub-Folders

Each CD-ROM, whether it is for the original solicitation (tender call) or for an amendment (addendum), must have the applicable elements of the following high-level Directory Structure created:



The following important points are to be noted about the Directory Structure:

- The "*Project ######*" folder is considered the 1st Tier of the Directory Structure where ###### represents each digit of the Project Number. The Project Number must always be used to name the 1st Tier folder and it is always required. Free text can be added following the Project Number, to include such things as a brief description or the project title;

- The "*Bilingual - Bilingue*", "*English*" and "*Français*" folders are considered the 2nd Tier of the Directory Structure. The folders of the 2nd Tier **cannot** be given any other names since GETS uses these names for validation purposes. At least one of the "*Bilingual - Bilingue*", "*English*" and "*Français*" folders is always required, and these must always have one of the applicable sub-folders of the 3rd Tier;

- The "*Drawings - Dessins*", "*Drawings*", "*Specifications*", "*Dessins*" and "*Devis*" folders are considered the 3rd Tier of the Directory Structure. The folders of the 3rd Tier **cannot** be given any other names since GETS also uses these names for validation purposes. There must be always at least one of the applicable 3rd Tier folder in each document.

IMPORTANT:	The applicable elements of the Directory Structure (1st, 2nd and 3rd Tier folders) are always required and cannot be modified.

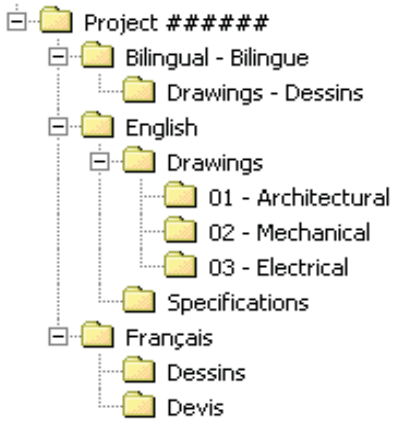
1.2 4th Tier Sub-Folders for Drawings

The "*Drawings – Dessins*", "*Drawings*" and "*Dessins*" folders must have 4th Tier sub-folders created to reflect the various disciplines of the set of drawings.

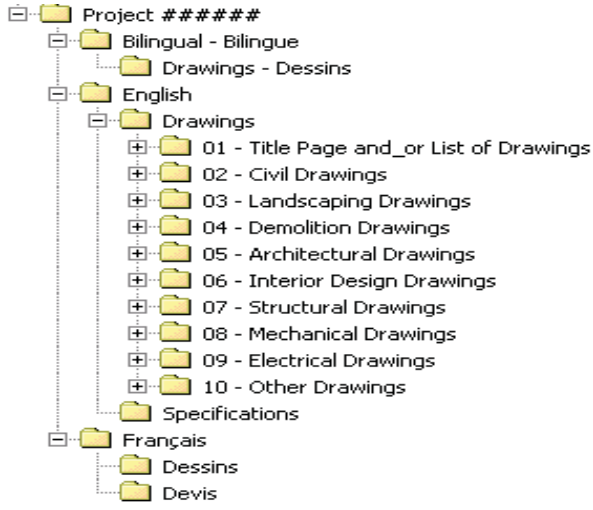
Because the order of appearance of the sub-folders on the screen will also determine the order of printing, it is necessary to start with a number the identification name of the sub-folders in the "*Drawings – Dessins*", "*Drawings*" and "*Dessins*" folders.

Note: The first sub-folder must be always reserved for the Title Page and/or the List of Drawings unless the first drawing of the set is an actual numbered discipline drawing.

Examples of 4th Tier sub-folders for drawings:



or



1.2.1 Naming Convention

The 4th Tier sub-folders for drawings must adhere to the following standard naming convention.

For the "*Drawings*" and "*Dessins*" folders:

- Y

Where:

= A two digit number ranging from 01 to 99 (leading zeros must be included)

Y = The title of the folder

Example: 03 – Mechanical

For the "*Drawings - Dessins*" folder:

- Y - Z

Where:

= A two digit number ranging from 01 to 99 (leading zeros must be included)

Y = The English title of the folder

Z = The French title of the folder

Example: 04 - Electrical - Électricité

It should be noted that the numbering of the 4th Tier sub-folders is for sorting purposes only and is not tied to a specific discipline. For example, "*Architectural*" could be numbered 05 for a project where there is four other disciplines before "*Architectural*" in the set of drawings or 01 in another project where it's the first discipline appearing in the set.

It is essential to ensure that the order of the drawings on the CD-ROM be exactly the same as in the hard copy set. GETS will sort each drawing for both screen display and printing as per the following rules:

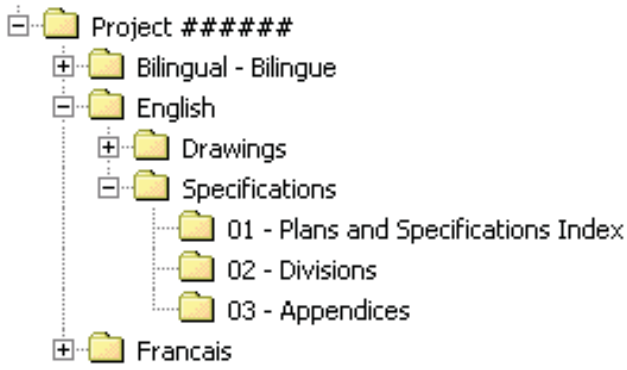
- The alphanumerical sorting is done on an ascending order;
- The alphanumerical order of the sub-folders determines the order of appearance on the screen as well as the order of printing (as an example: all the drawing PDF files in the 01 sub-folder will be printed in alphanumerical order before the drawings in the 02 sub-folder etc…);
- Each drawing PDF file within each sub-folder will also be sorted alphanumerically. This will determine the order of appearance on the screen as well as the order of printing (i.e. Drawing A001 will be printed before Drawing A002, Drawing M02 before Drawing M03, etc…).

1.3 4th Tier Sub-Folders for Specifications

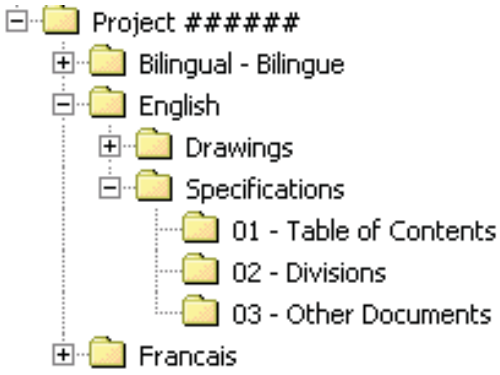
The "*Specifications*" and "*Devis*" folders must have 4th Tier sub-folders created to reflect the various elements of the specifications.

Because the order of appearance of the sub-folders on the screen will also determine the order of printing, it is necessary to start with a number the identification name of the sub-folders in the "*Specifications*" and "*Devis*" folders.

Examples of 4th Tier sub-folders for specifications:



or



1.3.1 Naming Convention

The 4th Tier sub-folders for specifications must adhere to the following standard naming convention.

For the "*Specifications*" and "*Devis*" folders:

- Y

Where:

## =	A two digit number ranging from 01 to 99 (leading zeros must be included)
Y =	The title of the folder

Example: **02 – Divisions**

It should be noted that the numbering of the 4th Tier sub-folders is for sorting purposes only and is not tied to an element of the specifications.

It is essential to ensure that the order of the elements of the specifications on the CD-ROM be exactly the same as in the hard copy. GETS will sort each element of the specifications for both screen display and printing as per the following rules:

- The alphanumerical sorting is done on an ascending order;
- The alphanumerical order of the sub-folders determines the order of appearance on the screen as well as the order of printing (as an example: all the specifications PDF files in the 01 sub-folder will be printed, in alphanumerical order before the PDF files in the 02 sub-folder, etc…);
- Each specifications PDF file within each sub-folder will also be sorted alphanumerically. This will determine the order of appearance on the screen as well as the order of printing (i.e. Division 01 will be printed before Division 02, 01 - Appendix A before 02 - Appendix B, etc…).

2. NAMING CONVENTION FOR PDF FILES

Each drawing, specifications division or other document that are part of the tender documents must be converted in PDF format (without password protection) in accordance with the following standard naming convention and each PDF file must be located in the appropriate sub-folder of the Directory Structure.

2.1 Drawings

Each drawing must be a **separate single page** PDF file. The naming convention of each drawing must be:

X### - Y

Where:

X = The letter or letters from the drawing title block ("*A*" for Architectural or "*ID*" for Interior Design for example) associated with the discipline

= The drawing number from the drawing title block (one to three digits)

Y = The drawing name from the drawing title block (for bilingual drawings, the name in both English and French is to appear)

Example: A001 - First Floor Details

Each drawing that will be located in the appropriate discipline 4th Tier sub-folders must be named with the same letter ("*A*" for Architectural Drawings for example) and be numbered. The drawing number used to name the PDF file must match as much as possible the drawing number of the actual drawing (the exception being when leading zeros are required).

The following important points about drawings are to be noted:

- The drawing PDF files within each sub-folder are sorted alphanumerically for both displaying and printing. If there are more than 9 drawings in a particular discipline the numbering must use at least two numerical digits (i.e. A01 instead of A1) in order to avoid displaying drawing A10 between A1 and A2. The same rule applies when there are more than 99 drawings per discipline i.e. three digits instead of two must be used for the numbering (for example M003 instead of M03);

- If drawing PDF files are included in the "*Bilingual - Bilingue*" folder, these cannot be included as well in the "*English*" and/or "*Français*" folders;

- If drawings not associated with a particular discipline are not numbered (Title Page or List of Drawings for example), these will be sorted alphabetically. While this does not represent a problem if there is only one drawing in the sub-folder, it could disrupt the order when there are two or more drawings. If the alphabetical order of the drawings name does not represent the order on the hard copy set, the drawings are to be named as per the following standard convention when converted in PDF format to ensure proper display and printing order.

  ## - Y

  Where:

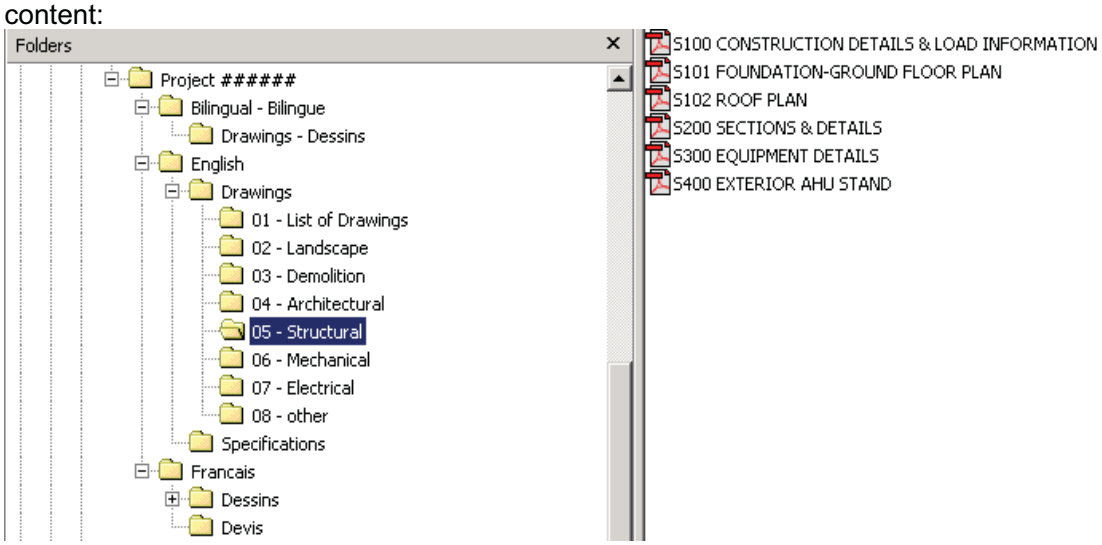
  ## = A two digit number ranging from 01 to 99 (leading zeros must be included)

  Y = The name of the drawing

  Example: 01 - Title Page
  02 - List of Drawings

  If numbers are not used in the PDF files name, "*List of Drawings*" will be displayed before "*Title Page*" because "L" comes before "T" in the alphabet.

Example of a 4th Tier Drawings sub-folder's content:



2.2. Specifications

Each Specifications Division must be a separate PDF file and all pages contained in each PDF file must have the same physical size (height, width). The Plans and Specifications Index must also be a separate PDF file. If there are other documents that are part of the Specifications (e.g. Appendix or other) these are to be separate PDF files as well.

2.2.1 Documents other than Specifications Divisions

Because PDF files within the Specifications sub-folders are sorted alphanumerically (in ascending order) for both on screen display and printing order, all files that appear in folders other than the "*Divisions*" sub-folder must be named using a number:

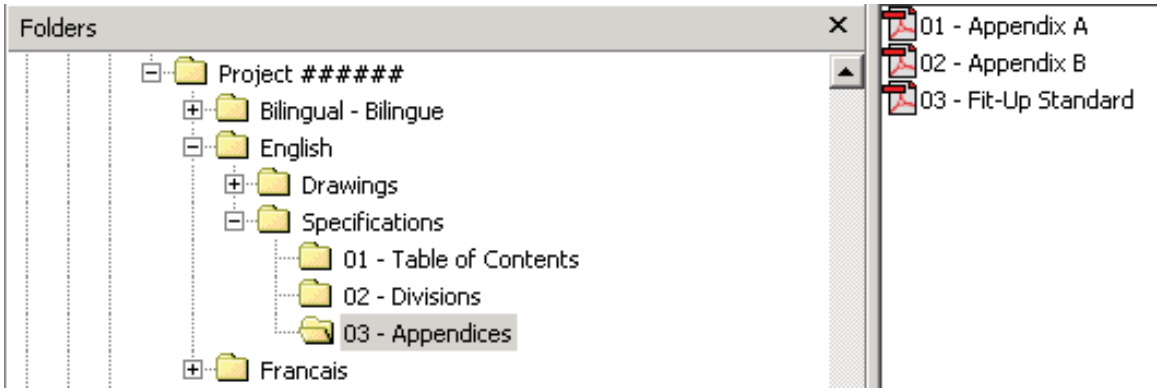
- Y

Where:

## =	Two digit number ranging from 01 to 99 with leading zeros required
Y =	Name of the document

Example: 01 - Plans and Specifications Index

Example of a sub-folder content (sub-folder other than "*Divisions*"):



2.2.2 Specifications Divisions

The Specifications Divisions must be named as follows:

Division ## - Y

Where:

Division ## = The actual word "*Division*" followed by a space and a two digit number ranging from 01 to 99 (with leading zeros required)

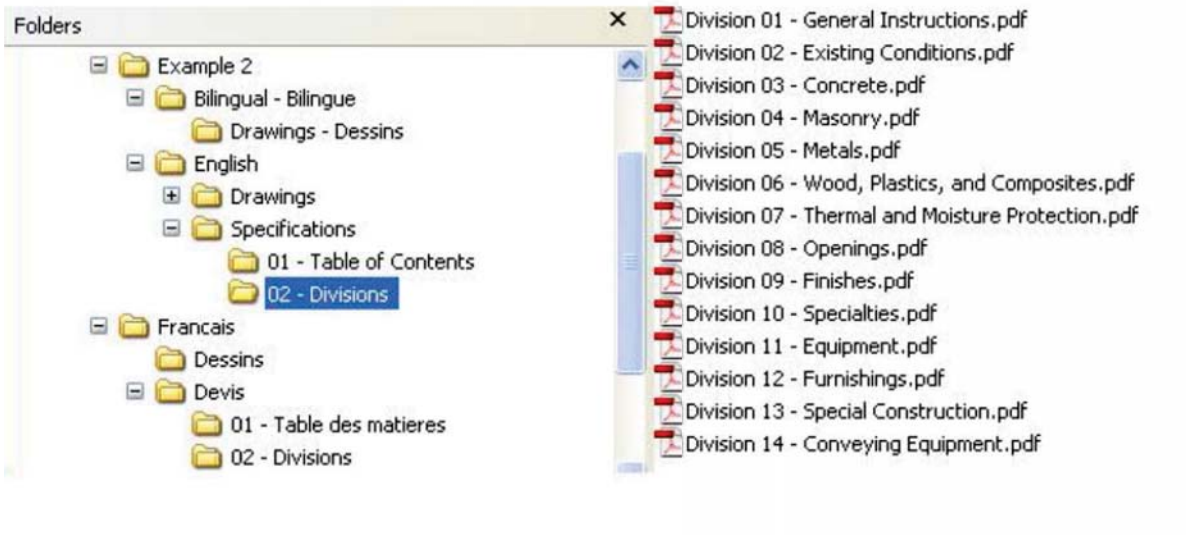
Y = Name of the Specifications Division as per **CSC/CSI MasterFormat™**

Example: Division 05 – Metals

The following important point about specifications is to be noted:

- The Numbering of the Divisions **cannot** be altered from **CSC/CSI MasterFormat™** even if some Divisions are not used in a given project. For example, Division 05 will always remain Division 05 even if Division 04 is not used for a given project.

Example of a "*Divisions*" sub-folder content:



3. CD-ROM LABEL

Each CD-ROM is to be labeled with the following information:

Project *Number* / *Numéro* de projet
Project Title / *Titre du projet*
Documents for Tender / Documents pour appel d'offres
CD *X* of/de *X*

Example:

Project 123456 / Projet 123456
Repair Alexandra Bridge / Réparation du pont Alexandra
Documents for Tender / Documents pour appel d'offres
CD 1 of/de 1

APPENDIX 'E'

BASIC REFRENCE GUIDE ON CONVERTING CONSTRUCTION DRAWINGS INTO PORTABLE DOCUMENT FORMAT (PDF)

Issued by:

Real Property Contracting Directorate

PWGSC

May 2005Last Updated: May 3, 2005

Version 1.0

PREFACE

Portable Document Format (PDF) is the standard format for documents that are posted on the Government Electronic Tendering System (GETS). There is therefore a need to obtain from architectural and engineering consultants an electronic copy of drawings and specifications in PDF for tendering Government of Canada (GoC) construction projects.

In order to have the highest quality in term of resolution and printing, consultants should to the greatest extent possible have the PDF drawing and specification files derived from the native software in which they were created. Scanning is permissible but only in special circumstances, for example when there is no electronic version of a drawing being included in a construction tender package.

The purpose of this document is to provide basic information on the conversion of Computer Aided Design and Drafting (CADD) drawings in PDF. Creating a PDF file from a CADD drawing is a relatively simple process once all the necessary configurations and settings are in place. It actually should not take any longer than it would take to create a plot file or to send a drawing to a printer. The information in this guide is not intended to cover all technical aspects of the conversion, which can be done using various methods, but rather to highlight important points about the process and file settings. The conversion of specifications is not covered in this basic reference guide since it does not require any special configuration or setting.

The information provided in this basic reference guide is not an indication that consultants are relieved from following the established standards for the production of drawings and specifications. The sole purpose of this guide is to provide basic information on the PDF conversion process bearing in mind that additional detailed technical information is available from the various software manufacturers.

1.0 PRINTER DRIVERS

Adobe Acrobat provides two different printer drivers that are able to convert CADD drawing into PDF format, Acrobat PDF Writer and Acrobat Distiller. Before creating a PDF file from a CADD drawing, a choice must be made as to which one will be used.

Acrobat PDF Writer is a non-PostScript printer driver that works best with documents that don't contain complex graphics

Acrobat Distiller is a PostScript printer driver that works best with documents that contain PostScript fills, Encapsulated PostScript (EPS) graphics, or other complex elements.

It is recommended that Acrobat Distiller be used to create PDF file of architectural and engineering drawings due to their size and complex graphical nature.

2.0 PRINTER CONFIGURATION

Before converting a CADD drawing to PDF, an Acrobat printer configuration file for the PDF paper size needs to be created. This function can be done in the CADD software rather than using a custom paper size defined for the Acrobat distiller feature. The recommended method is to add a PostScript Adobe plotter in the CADD software and making the necessary setting in terms of media source and size, scale and orientation. The configuration can then be re-used to simplify the conversion process for future files that use the same page size.

As an alternative, although not recommended, a custom-defined size can be created in Acrobat Distiller in the *properties* menu.

3.0 CREATING PDF FILES

Once the printer configuration has been done in the CADD software, open up Acrobat Distiller and make the necessary settings in the *preferences* and *job options* sub-menu. Ensure that the page size match the sheet size selected in the CADD software to create the file. Particular settings can be saved under different names for future use.

With the Acrobat Distiller application open, ensure the required sheet size is displayed in the *job options* window. Then it is simply a matter of bringing the CADD file into the Acrobat Distiller creation box.

A progress bar will show during the conversion and the newly converted PDF file should open up and be displayed for verification.

4.0 PDF FILES SETTINGS

4.1 Security

Adobe Acrobat contains security features that can de used to secure the files by restricting any changes to the files. However, since the files will be posted on GETS and will be used for printing copies, the files **must not** be password protected and **must** allow printing.

4.2 Drawing Orientation

The final PDF drawing files must be displayed on the screen in the same direction that the users are intended to view them. This can be achieved by adjusting the setup of the plotter. If the drawing is not oriented properly after the conversion, it can be rotated manually within Adobe Acrobat.

4.3 Font Type

In order to avoid any problems during the conversion and to minimize the potential for font display errors, the fonts used for the production of construction drawings must be *PostScript or True Type fonts.*

4.4 Resolution

Since the PDF files will be used for printing, it is important that a proper resolution be selected. It is recommended to select 600 dots per inch (dpi).

4.5 Scale

When choosing the Plot scale in Adobe, it is important to choose the 1:1 scale to ensure the integrity of the scale from which the drawings were created in the CADD software.

5.0 SCANNING

Scanning is not recommended and should be done only when the drawing is not available electronically. When scanning a drawing, it is important that it be done in real size (scale 1:1) to ensure that the scale remains intact in subsequent printing. It is recommended that each scanned drawing be opened and verified to ensure that the resolution, scale and border are of an acceptable quality.

6.0 FINAL CHECKLIST

When the drawing file has gone trough the PDF conversion, it is recommended to open it and verify the following:

- That the sheet size displayed is what was intended to be created (the size is viewable in the lower left corner of the drawing).
- That the orientation of the sheet is correct.
- That the line types, line weights and fonts match the CADD drawing.
- That the PDF file is in black and white.
- That each drawing is a single PDF file.
- That the PDF file is not password protected and printable.

If all the items are verified, the PDF file is useable

7.0 ADDITIONAL INFORMATION

For more information about the creation of PostScript and EPS files please refer to the User's Guide of the CADD software being used to produce the drawings. For more information about creating PDF file please refer to the Acrobat Distiller User's Guide and/or visit the Adobe Web site at www.adobe.com.

Government of Canada / Gouvernement du Canada

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non classifié

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

PART A - CONTRACT INFORMATION / PARTIE A - INFORMATION CONTRACTUELLE

1. Originating Government Department or Organization / Ministère ou organisme gouvernemental d'origine	2. Branch or Directorate / Direction générale ou Direction
AGENCE DES SERVICES FRONTALIERS	
3. a) Subcontract Number / Numéro du contrat de sous-traitance	3. b) Name and Address of Subcontractor / Nom et adresse du sous-traitant

4. Brief Description of Work / Brève description du travail

CONSULTANT PROJET DE CONSTRUCTION D'UN CENTRE DE SURVEILLANCE DES IMMIGRANTS À LAVAL : PRÉPARATION DES PLANS ET DEVIS

5. a) Will the supplier require access to Controlled Goods? Le fournisseur aura-t-il accès à des marchandises contrôlées?	☑ No / Non	☐ Yes / Oui
5. b) Will the supplier require access to unclassified military technical data subject to the provisions of the Technical Data Control Regulations? Le fournisseur aura-t-il accès à des données techniques militaires non classifiées qui sont assujetties aux dispositions du Règlement sur le contrôle des données techniques?	☑ No / Non	☐ Yes / Oui
6. Indicate the type of access required / Indiquer le type d'accès requis		
6. a) Will the supplier and its employees require access to PROTECTED and/or CLASSIFIED information or assets? Le fournisseur ainsi que les employés auront-ils accès à des renseignements ou à des biens PROTÉGÉS et/ou CLASSIFIÉS? (Specify the level of access using the chart in Question 7. c) (Préciser le niveau d'accès en utilisant le tableau qui se trouve à la question 7. c)	☐ No / Non	☑ Yes / Oui
6. b) Will the supplier and its employees (e.g. cleaners, maintenance personnel) require access to restricted access areas? No access to PROTECTED and/or CLASSIFIED information or assets is permitted. Le fournisseur et ses employés (p. ex. nettoyeurs, personnel d'entretien) auront-ils accès à des zones d'accès restreintes? L'accès à des renseignements ou à des biens PROTÉGÉS et/ou CLASSIFIÉS n'est pas autorisé.	☑ No / Non	☐ Yes / Oui
6. c) Is this a commercial courier or delivery requirement with no overnight storage? S'agit-il d'un contrat de messagerie ou de livraison commerciale sans entreposage de nuit?	☑ No / Non	☐ Yes / Oui

7. a) Indicate the type of information that the supplier will be required to access / Indiquer le type d'information auquel le fournisseur devra avoir accès

Canada ☑	NATO / OTAN ☐	Foreign / Étranger ☐

7. b) Release restrictions / Restrictions relatives à la diffusion

Canada	NATO / OTAN	Foreign / Étranger
No release restrictions / Aucune restriction relative à la diffusion ☑	All NATO countries / Tous les pays de l'OTAN ☐	No release restrictions / Aucune restriction relative à la diffusion ☐
Not releasable / À ne pas diffuser ☐		
Restricted to: / Limité à : ☐	Restricted to: / Limité à : ☐	Restricted to: / Limité à : ☐
Specify country(ies): / Préciser le(s) pays :	Specify country(ies): / Préciser le(s) pays :	Specify country(ies): / Préciser le(s) pays :

7. c) Level of information / Niveau d'information

Canada	NATO	Foreign / Étranger
PROTECTED A / PROTÉGÉ A ☐	NATO UNCLASSIFIED / NATO NON CLASSIFIÉ ☐	PROTECTED A / PROTÉGÉ A ☐
PROTECTED B / PROTÉGÉ B ☑	NATO RESTRICTED / NATO DIFFUSION RESTREINTE ☐	PROTECTED B / PROTÉGÉ B ☐
PROTECTED C / PROTÉGÉ C ☐	NATO CONFIDENTIAL / NATO CONFIDENTIEL ☐	PROTECTED C / PROTÉGÉ C ☐
CONFIDENTIAL / CONFIDENTIEL ☐	NATO SECRET / NATO SECRET ☐	CONFIDENTIAL / CONFIDENTIEL ☐
SECRET / SECRET ☐	COSMIC TOP SECRET / COSMIC TRÈS SECRET ☐	SECRET / SECRET ☐
TOP SECRET / TRÈS SECRET ☐		TOP SECRET / TRÈS SECRET ☐
TOP SECRET (SIGINT) / TRÈS SECRET (SIGINT) ☐		TOP SECRET (SIGINT) / TRÈS SECRET (SIGINT) ☐

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PART A (continued) / PARTIE A (suite)

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

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

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

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

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

☑ RELIABILITY STATUS / COTE DE FIABILITÉ	☐ CONFIDENTIAL / CONFIDENTIEL	☐ SECRET / SECRET	☐ TOP SECRET / TRÈS SECRET
☐ TOP SECRET– SIGINT / TRÈS SECRET – SIGINT	☐ NATO CONFIDENTIAL / NATO CONFIDENTIEL	☐ NATO SECRET / NATO SECRET	☐ COSMIC TOP SECRET / COSMIC TRÈS SECRET
☐ SITE ACCESS / ACCÈS AUX EMPLACEMENTS			

Special comments:
Commentaires spéciaux : _____

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

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

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

INFORMATION / ASSETS / RENSEIGNEMENTS / BIENS

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

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

PRODUCTION

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

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

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

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

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

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

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

SUMMARY CHART / TABLEAU RÉCAPITULATIF

Category / Catégorie	PROTECTED / PROTÉGÉ			CLASSIFIED / CLASSIFIÉ			NATO				COMSEC					
	A	B	C	CONFIDENTIAL / CONFIDENTIEL	SECRET	TOP SECRET / TRÈS SECRET	NATO RESTRICTED / NATO DIFFUSION RESTREINTE	NATO CONFIDENTIAL / NATO CONFIDENTIEL	NATO SECRET	COSMIC TOP SECRET / COSMIC TRÈS SECRET	PROTECTED / PROTÉGÉ A	PROTECTED / PROTÉGÉ B	PROTECTED / PROTÉGÉ C	CONFIDENTIAL / CONFIDENTIEL	SECRET	TOP SECRET / TRES SECRET
Information / Assets / Renseignements / Biens		✓														
Production		✓														
IT Media / Support TI		✓														
IT Link / Lien électronique																

12. a) Is the description of the work contained within this SRCL PROTECTED and/or CLASSIFIED?
La description du travail visé par la présente LVERS est-elle de nature PROTÉGÉE et/ou CLASSIFIÉE?

☑ No / Non ☐ Yes / Oui

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

12. b) Will the documentation attached to this SRCL be PROTECTED and/or CLASSIFIED?
La documentation associée à la présente LVERS sera-t-elle PROTÉGÉE et/ou CLASSIFIÉE?

☑ No / Non ☐ Yes / Oui

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

Table of Contents

CONSULTANT SERVICES MANDATE

PWGSC Project: R.082963.001 – Immigration Holding Centre - Laval

- Project Description (PD)
- Description of Services
    - Project Administration (PA)
    - Required Services (RS)
    - Additional Services (AS)
    - Appendices

For standards relating to the service provisions herein, please refer to the document "Doing Business – Quebec Region." The standards applicable to these services shall be adhered to.

PROJECT DESCRIPTION

PD 1 PROJECT INFORMATION

Public Works and Government Services Canada (PWGSC) intends to retain a firm of architects for the provision of the services required for this project.

1.1 PWGSC Project Title: Immigration Holding Centre
1.2 Project Address: Laval, Quebec
1.3 PWGSC Project Number: R.082963
1.4 Client/User: Canada Border Services Agency (CBSA)
1.5 Definitions

- **Client of PWGSC (Representative of the Client Department):** Canada Border Services Agency (CBSA).
- **Consultant:** the party which submitted a responsive proposal which was accepted by Canada to perform the Consultant Services under the Agreement, and includes the officers and employees of the Consultant identified in writing by the Consultant.
- **Contracting Authority:** the party identified on the front cover page, responsible for the establishment of the Agreement, its amendments, administration, and any related contractual issues.
- **Days:** continuous calendar days, including weekends and statutory public holidays.
- **Departmental Representative:** the officer or employee of Canada identified to the Consultant in writing by a duly authorized departmental officer to perform the Departmental Representative's duties under the Agreement.
- **Project Schedule:** a time plan, including the sequence of tasks, milestone dates and critical dates which must be met for the implementation of the planning, design and construction phases of the Project.
- **Specialist Consultant:** any Architect, Professional Engineer or other specialist, other than the Consultant, engaged by Canada directly or, at the specific request of Canada, engaged by the Consultant.
- **Sub-Consultant:** any Architect, Professional Engineer, or other specialist engaged by the Consultant to provide the Services included in the Agreement.

PD 2 PROJECT IDENTIFICATION

Description

Canada's *Immigration and Refugee Protection Act* (IRPA) stipulates who is inadmissible to Canada, including: security threats (espionage, subversion, terrorism, threat to Canadians, etc.); human or international rights violators, and criminals (including organized crime). Under the IRPA, the Canada Border Services Agency (hereafter referred to as the CBSA) is empowered with the right to arrest, detain and remove permanent residents and foreign nationals who are found to be inadmissible to Canada. The CBSA is also legally required to expel persons as soon as possible. The CBSA is the sole federal accountable immigration detention authority, and as such, is responsible for the care and control of immigration detainees under the IRPA.

At the request of the CBSA, Public Works and Government Services Canada (PWGSC) requires the Required Services (RS) and Additional Services (AS) of an experienced firm in order to erect a new building: an Immigration Holding Centre (IHC) in Laval, Quebec.

The CBSA plans to build a 8,400 m² IHC, Crown property, to accommodate approximately 133 foreign nationals subject to immigrant detention under the IRPA. The project involves construction of a new one-story IHC with a non-institutional appearance. Those held in an IHC are not authorized to leave the facility, except under escort of the CBSA. However, they do have access to many spaces throughout the Centre.

Costs

For information purposes, the cost of construction is estimated at roughly $35 million (excluding taxes).

Project Schedule

For information purposes, Consultant could be on site July 2017**;** (see section PA 1.9)

PD 3 PROJECT BACKGROUND

The IHC will consist of approximately 8,400 m² of floor area, over a single story, for accommodation, administrative spaces, support spaces, and special use spaces. The new building shall include all typical construction elements, including the building's infrastructure, superstructure and envelope, interior design, mechanical and electrical services, equipment and furnishings. Specific work related to security involves, among others, video surveillance, access control, and communications systems. Site development includes, in particular, outside parking, outside courtyards, fencing, signage, civil engineering works, landscaping, and so on.

The existing IHC in Laval is a 109-bed building leased by Correctional Service Canada (CSC) to the CBSA.

3.1 Work Context

Constraints related to government security and privacy clearances shall be taken into consideration by the Consultant: the Contract Documents must reflect that fact.

PD 4 AVAILABLE DOCUMENTATION

- Preliminary Technical Sheets; (see Appendix 1.1)
- Statement of work; (see Appendix 1.2)
- Laval Schematic Design Report; (see Appendix 1.3)
- List of drawings to be received after contract award (see Appendix 1.4)
- Forms – Fees (see Appendix 1.5)

PD 5 PROGRAM

The Required Services (RS) to be provided by the Consultant are described in a non-exhaustive manner in each of the phases listed below. (**See Required Services section.**)

The Consultant undertakes to provide PWGSC with the following services, among others, within the framework of the project identified above:

During each of the project phases described below, the Consultant shall plan for and schedule project coordination meetings with PWGSC, the Client Department and the Sub-Consultants, if any, on a regular basis (every week or every two weeks, depending on the phase) to ensure that ongoing, efficient and diligent progress is made in the project and that the schedule is respected. The Consultant shall draft minutes of the meetings and distribute them no later than forty-eight (48) hours after each meeting.

This project requires a Gold-level LEED NC environmental certification.

The generic design and Design Development documents were developed by others who carried out the tasks and deliverables for phases RS1, RS2 and RS3. The Consultant shall ensure that the documents received after Contract award include all the information/deliverables required under phases RS1 to RS3. The Consultant shall validate that all tasks and deliverables related to these phases are indeed properly completed before moving on to phase RS4. The Consultant shall identify the missing documents or information, submit them to the Departmental Representative for approval, and provide the missing documents or information, where applicable, before continuing with phase RS4. This is necessary so that the Consultant may take over the project:

RS1 Pre-Design Services – Verification (Phase 1)
RS2 Schematic Design – The option selected by the Client must be validated by the Consultant
RS3 Design Development

The services that the Consultant undertakes to subsequently provide as part of this mandate include, but are not limited to, professional architecture and engineering services, in compliance with the following Required Services (RS) and Additional Services (AS):

RS4, RS5, RS6, RS7, RS8, RS9, RS10, AS1, AS2, AS3, AS4 and AS5

The Consultant shall make sure to include in its bid the services of all Sub-Consultants (Architects, Professional Engineers or other Specialist Consultants) that will enable the Consultant to properly fulfil its mandate. The team members must be authorized to provide the required services to the full extent

prescribed by Quebec law, be a member in good standing of the regulatory body for their profession, and respect the security criteria required for this project.

The phases and Contract terms are described in detail in the section titled “Clauses, Conditions and General Provisions.” The Consultant shall refer thereto throughout the mandate.

PD 6 PROJECT OBJECTIVES

Purpose: Detail the project objectives

Typical elements:

6.1 Quality, Quality Management and Management of Drawings and Specifications Coordination
6.2 Sustainable Development
6.3 Code Compliance
6.4 Risk Management
6.5 Schedule Control
6.6 Cost Control
6.7 Waste Management
6.8 Health and Safety

6.1 Quality, Quality Management and Management of Drawings and Specifications Coordination

6.1.1 Design Principles – General

The Department expects the Consultant to maintain a high standard of architectural and engineering design, based upon recognized contemporary design principles. All design elements, planning, architecture and engineering must be fully coordinated among the disciplines and be consistent with good design principles.

The level of quality is to be consistent with other Government of Canada buildings.

Quality of materials and construction methods shall be commensurate with the type of building, the quality sought and the budget. Avoid experimental materials. Take into account the total life cycle of the building.

The quality management process that will be applied to the project shall be respected and applied throughout all of the Consultant's departments and by all its Sub-Consultants.
The coordination process for drawings and specifications among all disciplines shall be carried out by the Consultant and all its Sub-Consultants. The expected deliverable is that all drawings and specifications be fully coordinated among all disciplines and that their content respect the Client's needs. The Consultant is responsible for ensuring that the documents sent are coordinated.

Operating costs must be kept to a minimum and reflect the projected operating costs in the Cost Plan. This is to be achieved by compliance with the Energy Budget, selection of equipment requiring the minimum of operating personnel, building finishes for easy maintenance, etc.

The character, overall configuration and scope of the project and the materials used must be compatible with the surrounding area.

Design for maximum flexibility in immediate and future use of space.

The project shall be implemented so as to comply with environmental standards and Gold-level LEED NC criteria. To do so, the Consultant shall:

1) Incorporate Gold-level LEED NEC principles into project design and construction.

An Elemental Project Description (EPD), an Elemental Estimate and an Energy Simulation must be included in the design process as early as possible. These principles must be verified and validated by the Consultant to determine whether they were included in the proposed generic design that was sent after Contract award. Otherwise, the Consultant must inform the Departmental Representative of that fact and must indicate which of the principles are missing. Where an element is missing, the Consultant must provide the missing documents most likely to reduce the overall cost.

It is important to understand that needs must be met within the available budgets and in compliance with the Project Schedule in a creative and proactive manner.

6.1.2 Design Principles – Specific

The project has been assigned "security" status to meet the high security standards of the occupants, according to CBSA criteria. Consequently, this project entails security requirements applicable to the employees of the Consultant, Sub-Consultants and Specialists as well as those of the Contractor.

Typical elements:

- Elemental Project Description

  Based on Practice FF/180 of the Construction Specifications Institute (CSI) and structured according to the classification for building elements in ASTM E1557 UNIFORMAT II.

- Elemental Estimate

  Structured according to ASTM E 1557 – UNIFORMAT II. This estimate must contain analytical parameters (unit costs, ratios, percentages, etc.) to facilitate cost analysis.

Project planning must factor in the increased security measures specific to this type of building.

6.2 Sustainable Development

The Government of Canada has begun a series of initiatives to ensure that sustainable development principles are built into the policy of all federal organizations. PWGSC, like all federal departments, is required to have a Sustainable Development Strategy (SDS). The Real Property Services Branch of PWGSC has developed a strategic plan that sets out principles, goals and actions for integrating sustainable development principles into its policies and operations. A Gold-level LEED NC certification must therefore be obtained for the project.

6.3 Waste Management

The Construction, Renovation, and Demolition (CRD) Non-hazardous Solid Waste Management Protocol, to which the Real Property Branch (RPB) is bound, provides directions on the undertaking of non-hazardous solid waste management actions and serves as reference in relation thereto. The protocol is designed to meet the requirements of federal and provincial policies and the objectives of the RPB SDS as these relate to non-hazardous solid waste generated in CRD projects.

For all RPB projects where the area exceeds 2,000 m^2, a solid waste management program must be implemented. This requirement exists by regulation in the province of Ontario and by policy for the rest of Canada.

A minimum landfill diversion rate of 75% is to be achieved where local recycling facilities exist. For projects where the area is less than 2,000 m^2, a preliminary waste management evaluation of the economic feasibility of a waste management program must be carried out.

The results from the RPB CRD waste management pilot projects have been very positive. Based on these results and results obtained from similar projects that have been completed by other organizations, the following can be said:

* Approximately 50% to 95% of the waste generated during CRD projects can be diverted from landfill through reduction, reuse and recycling initiatives.
* Approximately 40,000 tonnes of waste are produced for every one billion dollars spent on construction projects.
* Contractors and project managers must plan for extra project time when implementing CRD waste diversion initiatives. However, added labour hours costs can be recuperated and a savings of up to 30% of the waste management costs (approximately 10% of the total project budget) can be achieved through reduced tipping fees, avoided haulage costs, and the sale of reusable and recyclable materials.

The Construction-Demolition Waste Management and Disposal section in the National Master Specification (NMS) is a reference to be consulted and used. The Consultant will provide details of waste management strategies.

6.4 Code Compliance

The Consultant is responsible for verifying and observing standards, codes, legislation, regulations, municipal by-laws and decisions made by authorities having jurisdiction in project execution. In case of overlap, the most stringent requirements must be applied and take precedence. The Consultant shall identify other jurisdictions appropriate to the project.

6.5 Risk Management

A risk management strategy is crucial for PWGSC Project Management and integrates project planning into procurement planning. All project stakeholders are an integral part of the risk management strategy, culminating in an integrated production team. Specific services required for project delivery are outlined in Required Services.

6.6 Health and Safety

The *Policy on Occupational Health and Safety* (DP 007) states that PWGSC acknowledges that any person to whom it gives access to federal government worksites must be protected from any hazard that may cause injury, illness or death.

PWGSC also acknowledges that provincial and territorial occupational health and safety (OHS) acts and regulations apply to Contractors subject to provincial or territorial jurisdiction who are hired to carry out work on Crown-owned or PWGSC-managed assets and lands.

In order to formalize PWGSC's commitment to protecting all persons granted access to construction sites managed or administered by the Department, the Consultant shall:

- Ensure that OHS is an integral component of construction project delivery;
- Ensure that construction projects are organized and managed in such a way as to ensure that PWGSC's role is deemed to be that of builder, principal contractor or prime contractor, and to ensure that PWGSC is deemed as having control over the work and activities;
- Reduce risks to the Crown and limit legal liability for PWGSC employees; and
- Provide clear direction with respect to roles and responsibilities.

PWGSC recognizes that it is required to safeguard the health and safety of all persons working on government construction projects. It also recognizes that federal government employees and private sector employees are entitled to receive the full protection afforded by OHS regulations.

To meet this requirement and enhance health and safety protection for all individuals on federal construction sites, PWGSC agrees to comply with provincial and territorial OHS acts and regulations, in addition to the *Canada Occupational Health and Safety Regulations*.

At the very start of the mandate, the Departmental Representative will give the Consultant specification section 01 35 29.06 – Health and Safety from PWGSC, Quebec Region, and a general list of specific clauses. The list shall be adapted by the Consultant and its project team, and the pertinent specific clauses shall be incorporated into the project specifications.

PD 7 ISSUES

7.1 Cost

Element: Quality of Estimation
Cost Control Strategy:

Effective cost estimating and cost control is of prime importance and shall be provided by professional quantity surveyors (PQS). Class C and Class B Cost Estimates shall be submitted in elemental cost analysis format. The standard of acceptance for this format is the current issue of the elemental cost analysis format put out by the Canadian Institute of Quantity Surveyors (CIQS).

The Class A Cost Estimate shall be submitted in trade cost breakdown format. Cost estimates shall have summary plus full back-up showing items of work, quantities, unit prices, and amounts.

7.2 Time

Element: Adherence to Project Schedule
Project Control Strategy:

The Consultant's responsibilities include establishing the schedule in MS Project format and regularly verifying it. Schedule planning must be based on the critical path method using MS Project 2007. Develop the work breakdown structure (WBS) through at least five levels: project, stage, element, sub-element, and work package. Elements with a direct impact on the schedule must be identified and mitigation measures must be planned and introduced.

The Time Management, Planning, and Control Specialist Consultant (scheduler) shall create a project planning and control system (control system) for planning, scheduling, progress monitoring, and reporting. The Management Specialist Consultant shall have the necessary skills and experience.

7.3 Security

Element: Meet Security Requirements
Security Control Strategy:

The security level and requirements for this project shall be respected by all Sub-Consultants and Specialist Consultants involved in the project.

7.4 Security Hardware, Doors and Frames

Element: Compliance with Security Hardware, Doors and Frames

Apply CSBA technical criteria for security hardware required for the project and for doors and frames. Use the services of a Hardware Specialist Consultant. The level and requirements must be respected by all Sub-Consultants and Specialist Consultants involved.

7.5 LEED Certification

Obtain a Gold-level LEED NC certification.

7.6 Enhanced Commissioning

Carry out the work required under the PWGSC Commissioning Manual and under the Gold-level LEED NC evaluation system.

7.7 Document Review

Establish a predetermined schedule for submitting progress documents so that PWGSC and its Client can mobilize their staff for the reviews. Submit documents representative of the percentage of progress requested. Clearly identify elements that require additional information and/or that are on the critical path. After receipt of comments from PWGSC and its Client, respond to each item in writing.

7.8 Sustainable Development

The Consultant team must be able to deliver the requested services (Gold-level LEED NC certification) with qualified staff.

PD 8 CONSULTANT SERVICES

The Consultant team must be able to provide services in the following disciplines:

Architecture
Mechanical engineering
Electrical engineering
Structural engineering
Civil engineering
Landscape design
Commissioning
Programming
Interior design
Schedule control
Sustainable development – LEED
Lighting design
Colours
Security
Technological security
Communications
Graphic design
Geotechnical engineering
Indoor air quality, surveillance, alert system
Fire protection

Cost and control management
Risk management
Waste management
Food services – food management
Signage
Environmental protection

The Consultant team must be able to count on an appropriate group of architects, engineers, technical specialists and Specialist Consultants with the experience and knowledge necessary to carry out the project. These resources must, in particular, examine the many aspects of the project at all or certain phases and provide advice in that respect. The following positions are considered required:

1.1 Architect/Owner

Must have at least fifteen (15) years of relevant experience and a university degree in his or her discipline. He or she must be an architect and a member in good standing of, or hold a licence or temporary permit from, the Ordre des architectes du Québec. He or she must have the knowledge and skills to be able to develop, approve and coordinate Work Plans to reach objectives in terms of cost, quality and the Project Schedule. He or she directly monitors other architects or specialists and is able to assume responsibility for complex and difficult technical assignments.

This resource must have enough general knowledge with respect to an IHC or a detention centre to coordinate and direct the team's other resources. He or she must define, coordinate, plan and manage all additional technical notes and reviews required, factoring in the work performed by other specialist resources. This includes, among other things:

- Giving prior approval of the Work Plan for the WBS;
- Providing the Project Manager and the Departmental Representative with technical recommendations;
- Leading, directing, managing, coordinating and supervising the team's tasks;
- Leading, coordinating and/or supervising value engineering sessions or dispute resolution sessions;
- Proposing follow-up actions or measures; and
- Any other related task at the request of the Departmental Representative.

1.2 Senior Architect

Must have at least ten (10) to fourteen (14) years of relevant experience and a university degree in his or her discipline. He or she must be an architect and a member in good standing of, or hold a licence or temporary permit from, the Ordre des architectes du Québec. He or she must have the knowledge and ability to develop, approve and coordinate Work Plans in order to achieve objectives in cost, quality and scheduling for an IHC and/or a detention centre. He or she directly monitors other architects or specialists and is able to assume responsibility for complex and difficult technical assignments.

This resource must have enough general knowledge with respect to an IHC or a detention centre to coordinate and direct the team's other resources. He or she must define, coordinate, plan and manage all additional technical notes and reviews required, factoring in the work performed by other specialist resources. This includes, among other things:

- Giving prior approval of the Work Plan for the WBS;

- Providing the Project Manager and the Departmental Representative with technical recommendations;
- Leading, directing, managing, coordinating and supervising the team's tasks;
- Leading, coordinating and/or supervising value engineering sessions or dispute resolution sessions;
- Proposing follow-up actions or measures; and
- Any other related task at the request of the Departmental Representative.

1.3 Intermediate Architect

Must have at least five (5) to nine (9) years of relevant experience and a university degree in his or her discipline. He or she must be an architect and a member in good standing of, or hold a licence or temporary permit from, the Ordre des architectes du Québec. He or she must have the knowledge, skills and ability to execute a variety of work assignments according to pre-determined procedures. He or she is independent and able to detect issues and propose solutions to problems. He or she has a good grasp of the organizational and hierarchical structure. He or she performs independent analyses as an aid to decision making and shall make judicious use of the available information. He or she refers unusual or complex decisions to the Senior Architect or the Architect/Owner.

1.4 Junior Architect

Must have at least three (3) to four (4) years of relevant experience and a university degree in his or her discipline. He or she must be a member in good standing of, or be eligible for certification with, the Ordre des architectes du Québec. He or she must have the knowledge, skills and ability to execute a variety of work assignments according to pre-determined procedures. He or she has a good grasp of the organizational and hierarchical structure. He or she is under close supervision to ensure that the tasks he or she performs are compliant.

1.5 Senior Architectural Technician

Must have at least ten (10) to (14) years of relevant experience and a college studies diploma in his or her field of specialization or an equivalent combination of education and experience. He or she plans, organizes and coordinates part of a project requiring the application of extensive technical knowledge.

1.6 Intermediate Architectural Technician

Must have at least five (5) to nine (9) years of relevant experience and a college studies diploma in his or her field of specialization or an equivalent combination of education and experience. He or she plans, organizes and coordinates part of a project requiring the application of general technical knowledge.

1.7 Work Site Supervisor – Architect/Engineer

Must have at least fourteen (14) years of relevant experience. He or she must hold a college studies diploma in his or her field of specialization or a university degree in architecture.

- Architect: The architect must be a member in good standing of the Ordre des architectes du Québec.
- Engineer: The engineer must be a member in good standing of the Ordre des ingénieurs du Québec.

He or she has extensive experience with the work that Contractors carry out at construction sites and is able to quickly detect problems, suggest solutions, and efficiently perform the necessary

clerical work. He or she is able to participate in site meetings. He or she checks the quality of materials and work. He or she deals with changes. He or she monitors the work and schedule.

This resource must have enough general knowledge of an IHC or a detention centre to define, coordinate, plan and manage all the notes and reviews required at the site, factoring in the work performed by other specialist resources. He or she functions independently.

1.8 LEED Professional – Architect/Engineer

The LEED specialist professional should have at least ten (10) to fourteen (14) years of relevant experience with coordinating and monitoring LEED activities for major projects. The LEED professional:

- Architect: The architect must be a member in good standing of the Ordre des architectes du Québec.
- Engineer: The engineer must be a member in good standing of the Ordre des ingénieurs du Québec.

He or she must have completed at least three (3) Gold-level LEED NC projects.

1.9 Landscape Architect

Must have at least ten (10) to fourteen (14) years of relevant experience and a university degree in his or her discipline. He or she must be an architect and a member in good standing of, or hold a licence or temporary permit from, the Ordre des architectes du Québec. He or she must have the knowledge and skills to be able to develop, approve and coordinate Work Plans to reach objectives in terms of cost, quality and the Project Schedule. He or she is able to bear responsibility for complex and difficult technical assignments.

1.10 Senior Engineer (Mechanical, Electrical, Structural, Civil, Fire Protection)

The Senior Engineer should have at least ten (10) to (14) years of relevant experience and a university degree in his or her field or an equivalent combination of education and experience. He or she must be an engineer and must be a member in good standing of, or hold a licence from, the Ordre des ingénieurs du Québec. He or she must have the knowledge and ability to develop, approve and coordinate Work Plans in order to achieve objectives in cost, quality and scheduling for an IHC and/or a detention centre. The Senior Engineer directly supervises other engineers and specialists and is able to carry out complex and difficult assignments.

1.11 Intermediate Engineer (Mechanical, Electrical, Structural, Civil, Fire Protection)

The Intermediate Engineer should have at least five (5) to nine (9) years of relevant experience and a college studies diploma in his or her field of specialization or an equivalent combination of education and experience. He or she must be an engineer and must be a member in good standing of, or hold a licence from, the Ordre des ingénieurs du Québec. He or she must have the knowledge, skills and ability to execute a variety of work assignments according to pre-determined procedures. He or she is independent and able to detect issues and propose solutions to problems. He or she has a good grasp of the organizational and hierarchical structure. He or she performs independent analyses as an aid to decision making and shall make judicious use of the available information. He or she refers unusual or complex decisions to the Senior Engineer or the Owner.

1.12 Junior Engineer (Mechanical, Electrical, Structural, Civil, Fire Protection)

Must have at least three (3) to four (4) years of relevant experience and a university degree in his or her discipline. He or she must be a member in good standing of, or be eligible for certification

with, the Ordre des ingénieurs du Québec. He or she must have the knowledge, skills and ability to execute a variety of work assignments according to pre-determined procedures under supervision. He or she has a good grasp of the organizational and hierarchical structure. He or she is under close supervision to ensure that the tasks he or she performs are compliant. He or she prepares drawings and performs calculations under strict supervision to ensure that his or her tasks comply with established procedures.

1.13 Senior Engineering Technician (Mechanical, Electrical, Structural, Civil, Fire Protection)
Must have at least fourteen (14) years of relevant experience and a college studies diploma in his or her field of specialization or an equivalent combination of education and experience. He or she plans, organizes and coordinates part of a project requiring the application of extensive technical knowledge.

1.14 Intermediate Engineering Technician (Mechanical, Electrical, Structural, Civil, Fire Protection)
Must have at least nine (9) years of relevant experience and a college studies diploma in his or her field of specialization or an equivalent combination of education and experience. He or she plans, organizes and coordinates part of a project requiring the application of general technical knowledge.

1.15 Senior Geotechnical Engineer
The Senior Geotechnical Engineer should have at least fifteen (15) years of experience and a university degree in his or her field of specialization or an equivalent combination of education and experience. He or she must be an engineer and must be a member in good standing of, or hold a licence from, the Ordre des ingénieurs du Québec. He or she holds relevant experience in managing and coordinating geotechnical activities as part of major projects. He or she is able to bear responsibility for complex and difficult assignments.

1.16 Commissioning Officer
He or she must have at least fifteen (15) years of relevant experience and a university degree in his or her field of specialization or an equivalent combination of education and experience. He or she must be an engineer and must be a member in good standing of, or hold a licence from, the Ordre des ingénieurs du Québec. He or she must have the knowledge and ability to develop, approve and coordinate Work Plans in order to achieve commissioning objectives for an IHC or a detention centre. This includes, among other things:

- Being able to prepare a start-up plan that reflects operating and maintenance requirements;
- Ensuring that facilities can operate continuously;
- Assisting and planning employee training jointly with the Client;
- Preparing and documenting operating procedures;
- Summarizing the system components;
- Ensuring that all reference manuals are in the appropriate language and easily understandable by users;
- Preparing maintenance procedures for major equipment;
- Making sure the project meets the Client's requirements; and
- Confirming that the Contractor has carried out the project as described in the Contract Documents.

1.17 Estimating and Quantity Surveying Specialist

- Must be a Construction Estimator Certified (CEC) or a PQS who is a member of the CIQS;
- Must have at least ten (10) years of relevant experience; and
- Must be from a firm other than that of the Proponent or its engineering Sub-Consultants.

PROJECT ADMINISTRATION

PA 1 PROJECT ADMINISTRATION

PURPOSE
The following administrative requirements apply during all phases of project delivery.

1.1 PWGSC Project Management

The PWGSC Project Manager assigned to the project is the Departmental Representative.

The Project Manager is the departmental officer directly concerned with the project and responsible for its progress. The Project Manager is the liaison between the Consultant, Public Works and Government Services Canada (PWGSC) and the Client Departments.

PWGSC administers the project and exercises continuing control over the Consultant's work during all phases of development. Unless directed otherwise by the Project Manager, the Consultant obtains all Federal requirements and approvals necessary for the work.

The Consultant shall:

- Carry out services in accordance with the Project Brief, the approved documents and directions given by the Departmental Representative;
- Obtain written authorization from the Departmental Representative before carrying out the services of the next phase;
- Ensure all communications carry the PWGSC Project Title, Project Number and File Number;
- Advise the Departmental Representative of any changes that may affect the schedule or budget or are inconsistent with instructions or written approvals previously given. The Consultant shall detail the extent and reasons for the changes and obtain written approval before proceeding; and
- Obtain the most recent versions of the Document Submission Standards from the Departmental Representative.

Regarding coordination with Sub-Consultants, the Consultant shall:

- Throughout all phases of the project, assume responsibility for coordinating the work of any Sub-Consultants and specialists retained by the Consultant as well as for their work;
- Ensure clear, accurate and ongoing communication of design, budget, and project scheduling issues, including changes, as they relate to the responsibilities of all Sub-Consultants and specialists from initial base building reviews to post-construction reports;
- Ensure Sub-Consultants provide adequate site inspection services and attend all required meetings; and
- Make sure that the documents submitted are properly coordinated among all disciplines and specialties, are compliant with statutes, standards and regulations, and are complete. Errors and omissions resulting from inadequate coordination will not be paid.

1.2 General Project Deliverables

Where deliverables and submissions include summaries, reports, drawings, plans or schedules, six (6) hard copies plus one (1) copy in electronic format shall be provided unless otherwise specified.

1.3 Lines of Communication

Unless otherwise arranged with the Project Manager, the Consultant shall communicate with the Project Manager only. There shall be no direct official contact between Client Departments and the Consultant.

More specifically, during the construction tender call, Public Works and Government Services Canada conducts all correspondence with Bidders and makes the Contract award. There will be no direct communication between the Consultant and the Bidders.

1.4 Media

The Consultant shall not respond to requests for project-related information or questions from the media. Such inquiries are to be directed to the Project Manager.

1.5 Meetings

The Consultant shall organize meetings at least every two weeks during the project appropriation period. While drawings and specifications are being prepared, the Consultant shall organize meetings every two weeks to validate its progress with the Departmental Representative and PWGSC Architecture and Engineering Services. A close partnership between the Consultant team and PWGSC is critical to ensure that the drawings and specifications comply with the requirements of Client Departments and that they are produced as fast as possible.

During the project development period and the work performance period, all members of the project team shall attend the meetings, that is:

- The Client (Representative of the Client Department);
- PWGSC Departmental Representative; and
- The Consultant, all Sub-Consultants and the Specialist Consultants;
- Contractor

The Consultant shall attend the meetings, record the issues and decisions and prepare and distribute minutes within 72 hours following the meetings. The meetings may take place in Montreal.

1.6 Project Response Time

It is a requirement of this project that the key personnel of the Consultant, among which the Sub-Consultants, Specialist Consultants or specialist firms, be personally available to attend meetings or respond to inquiries within one (1) day.

1.7 Submissions, Reviews and Approvals

Work in progress is to be reviewed by the Project Manager as well as the following:

PWGSC In-House Services

- Submission format: report, drawings and specifications, oral submissions as required;
- Submission schedule: submissions are reviewed at a time to be arranged with two (2) days' notice when completed work has been forwarded to the Project Manager;
- Expected turnaround time: 1 to 2 weeks; and
- Number of submissions: two (2): 50% and 99%.

Design Review Committee – Client

- Submission format: report, drawings and specifications, oral submissions as required;

- Submission schedule: submissions are reviewed at a time to be arranged with two (2) days' notice when completed work has been forwarded to the Project Manager;
- Expected turnaround time: 1 to 2 weeks; and
- Number of submissions: two (2): 50% and 99%.

Labour Canada – Fire Protection

- Submission format: report, drawings and specifications, oral submissions as required;
- Submission schedule: submissions are reviewed at a time to be arranged with two (2) days' notice when completed work has been forwarded to the Project Manager;
- Expected turnaround time: 1 to 2 weeks; and
- Number of submissions: two (2): 50% and 99%.

Chart of Reviews and Approvals	PWGSC		CBSA		Fire Prevention Department	
	R	A	R	A	R	A
RS1 Analysis of Project Brief						
Project Scope of Services Report						
Class D Estimate						
Gold-level LEED NC Checklist with Comments						
Sustainable Development Action Plan with Schedule						
RS2 Design Concept						
Design Options						
Recommended Design Option						
Class C Estimate(s)						
Gold-level LEED NC Checklist with Comments						
Total Cost Analysis						
Code Study						
Elemental Project Description						
RS3 Design Development						
Design Development Documents						
Class B Estimate(s)						
Total Cost Analysis						
Code Study						
Gold-level LEED NC Checklist with Comments						
HVAC Operating Diagrams						
Elemental Project Description						
RS4 Construction / Tender Call Documents						
33% and 66% Complete Construction Drawings		X			X	
99% Complete Construction Drawings and Specs		X			X	
Class A Estimate(s)		X		X		
100% Final Construction Documents		X				
Code Study	X					
Gold-level LEED NC Checklist with Comments	X					
Total Cost Analysis	X		X			

R = Review
A = Approval
Dark grey area = Phases carried out by others and which the Consultant must verify and validate. Identify the missing documents or information, obtain Departmental Representative's approval, then prepare, produce and submit the missing documents and information before continuing with phase RS4.

1.8 Official Languages

This project requires services in both official languages. Refer to the Supplementary Conditions section of this Request for Proposals document entitled “Language Requirements.”

1.9 Execution Timeline

Along with the proposal, the Consultant shall submit a detailed execution timeline for the project specifying the time required to perform all tasks described in the Required Services and Additional Services sections. The deliverables shall be indicated: plan for about four (4) weeks between each phase for transmission, analysis and approval by the Client Department and PWGSC.

At the request of the Departmental Representative, and in cooperation with the Consultant, this timeline may be revised.

The following criteria shall be retained when developing the execution timeline:

- For information purposes, the Consultant could be on site July 2017;
- The date of interim acceptance for the construction work and of occupancy by the Client is slated at the most for June 30, 2021. The ideal interim acceptance for the construction work would be March 2020. The Consultant has to prepare a Global Project Schedule that aim toward that date as much as possible.
- The date for delivery of the construction drawings and specifications is **eight (8) months** after the Consultant's Contract is awarded.
    - RS1/RS2/RS3/RS4/RS7/RS9 = **8 months;**
    - RS5 = about 3 months;
    - RS6 = about 29 months; and
    - RS8 = intermittent and two months after substantial completion.
- **NOTE:** The Consultant must produce a detailed Project Schedule. This is an assessment criterion. The phases and activities therein must be planned and identified in this detailed schedule. It must be adjusted no later than 3 weeks after Contract award. Coordination of documents among the disciplines must be part of the detailed schedule.

PA 1.10 DOCUMENT SUBMISSION

At every phase, the drawings shall be presented in A1 format (or another format as agreed), the estimates, reports and specifications shall be bound on 8.5 x 11" paper, with double-sided printing, in six (6) copies as well as their electronic version on CD in three (3) copies in unprotected PDF and DWG formats (i.e., with unrestricted access).

The Consultant shall identify all drawings, specifications, technical specifications, reports and other documents, including their electronic versions, with seals and signatures.

PA 1.11 FEES – NECESSARY RESOURCES

Unless otherwise indicated, the professional services supplied by the Consultant shall be compensated on the basis of **Time-Based Fees for the number of hours actually worked**.

The Consultant shall submit to the Departmental Representative for approval the price and justifications for any new category of work not found in the Work Plan and on the Price Table before undertaking such

new work. The Departmental Representative reserves the right to request proposals from other suppliers for any category of work not found on the Price Table, and to have such new work done by another supplier.

Where the means of remuneration is Time-Based Fees for the number of hours actually worked, the following provisions apply:

- The amounts listed in the Price Table for the items payable on an hourly basis (billable hourly rate) shall include, without limitation, all costs for labour, equipment, materials and report writing as well as everything the assigned resources need to perform their tasks.
- The personnel provided by the Consultant to provide the professional services for said items will be payable on the basis of a billable hourly rate for the number of hours worked, in accordance with the remuneration terms set out below.
- The hours allowed by Departmental Representative on the Price Table for any Item paid at the billable hourly rate may be used in whole or in part, or not used at all. This is an estimated number of hours only and does not represent a minimum or maximum number of hours payable to the Consultant.

The Time-Based Fees for the number of hours actually worked shall take into account and include the following expenses:

- the employee's base pay;
- any increases in base pay;
- premiums and allowances, including an increased rate of pay for overtime;
- premiums, including overtime charges and charges for work done at night and on weekends;
- employee benefits and inflation;
- lost or unproductive time, including time spent in travel or waiting and for failed tests;
- costs for supplying, operating and maintaining equipment, apparatuses, tools, instruments, accessories, clothing, safety devices, etc., used by staff to deliver services;
- travel costs for staff. However, certain travel expenses for staff are reimbursed under a separate payment item;
- insurance costs including insurance for general civil liability, motor vehicle liability, marine liability (if applicable), professional liability and work accidents;
- costs related to the use of information processing equipment and associated hardware and software by personnel in providing the services;
- costs for administrative support, including the secretarial services for preparing reports; costs for copying documents and communication costs;
- administrative fees;
- insurance;
- payroll taxes;
- expenses for administration and the head office;
- profit; and
- everything the assigned resources need to perform their tasks.

The tendered Time-Based Fees Based on the Hours Actually Worked are valid for the entire term of the Contract. The Consultant shall ensure that staff assigned to the mandate and the qualifications for

compensation purposes are accepted in writing by the Owner before execution of the mandate begins. The Consultant shall at all times be able to demonstrate to the Departmental Representative that any expense incurred by it is justified in the Work Plan and that the price paid is fair and reasonable, notably by calling for competitive bids as appropriate, given the amount of the expense and the circumstances.

For all services, the Time-Based Fees for the number of hours actually worked shall be submitted for each phase (RS) described in the Required Services section of this document and for each discipline. The Consultant shall include in its proposal the fees of all Sub-Consultants and Specialists necessary for the project.

After Contract award, the Consultant shall develop for transmission to the Departmental Representative a Comprehensive Work Plan by discipline and by phase (Matrix of Responsibilities and Tasks).

The Consultant shall then develop and submit its Monthly Work Plan by discipline and by phase on the 15th of each month prior to the start of the tasks presented in the Monthly Work Plan. The Monthly Work Plan consists of the Detailed Weekly Work Plans for the month.

Each Detailed Weekly Work Plan shall include the name of all members of the Consultant team who are scheduled to work during the week, the tasks planned each week for each member and the number of hours planned for each task (See Appendix 1.8). The Weekly Work Plans shall be submitted in advance at mid-month to the Departmental Representative for approval before the planned activities begin. Consequently, the Work Plan shall be submitted no later than the middle of the month prior.

For the monthly billing, the Consultant shall provide the following information to the Departmental Representative:

- All Detailed Weekly Work Plans approved for the month. Each Work Plan shall be assembled by discipline and associated with the invoice submitted;
- A text describing work progress, reporting the status of all work in progress as well as that planned for the next four weeks;
- A detailed table of the hours actually worked by activity and by worker at the approved hourly rates;
- A summary of the hours worked by discipline involved; and
- The invoice.

The proposal shall include, as a separate lump-sum price or hourly rate price, the cost of the following additional services:

- AS1 – English translation of the tender documents (lump-sum price);
- AS2, AS3, AS4 (hourly rate price);
- AS5 (lump-sum price);
- RS1, RS2, RS3 (hourly rate price);
- RS4, RS5, RS6, RS7, RS8, RS9, RS10 (hourly rate price); and
- Eligible disbursements: see General Conditions *R1230D CG5.12 (2011-05-16) Disbursements*.

REQUIRED SERVICES

The Required Services task list is non-exhaustive and in no way limits the professional obligations of the Consultants and its Sub-Consultants to perform the required tasks for the purpose of fulfilling the mandate of the project.

RS 1 ANALYSIS OF PROJECT REQUIREMENTS – VERIFICATION AND VALIDATION

1.1 Purpose

This phase was carried out by others. The Consultant shall be responsible for all project requirements and for ensuring that the description of work includes, in particular, information on the mode of execution, a schedule and estimates in order to guarantee coherent execution of the project.

The Consultant shall ensure that this phase is approved by the Client, since the approved documents will constitute the scope of services to be used throughout the project as the reference document. The Consultant shall identify whether any information is missing in relation to this phase. The Consultant shall submit to the Departmental Representative a document listing the documents received, what has been verified and validated and what is missing with respect to the phase.

The Consultant shall notify the Departmental Representative and submit to the Departmental Representative a detailed Work Plan for performance of the work to produce the documents missing for this phase. After approval by the Departmental Representative, the Consultant may make the necessary changes or produce the missing documents. Resubmit for final acceptance by the Departmental Representative.

1.2 General

Scope of Work

- Review and validate project requirements;
- Review and validate documents, information and all other deliverables for the RS1 phase, prepared by others, and review drawings, specifications and all other documents of the proposed building;
- Analyze the project requirements/program;
- Review and validate all available existing material related to the project;
- Review and validate the drawings, specifications and other documents produced by others;
- Review and validate the proposed Project Schedule for verification that all milestone dates are achievable;
- Review and validate the Cost Plan / budget for verification that the costs are realistic and achievable;
- Identify and verify all authorities having jurisdiction over the project;
- Identify and validate all applicable codes, regulations and standards, including (but not limited to): National Building Code, Canada Labour Code, Model National Energy Code, NFPA requirements, Québec OHS regulations, the Canadian Electrical Code, and CSA standards Z462: Workplace Electrical Safety and 282: Emergency Electrical Power Supply for Buildings, etc.;
- Establish a policy to minimize environmental impacts consistent with the project objectives and economic constraints;
- Review the potential for environmental impacts and application of the *Canadian Environmental Assessment Act* (CEAA); and

- Incorporate Gold-level LEED NC principles, with special emphasis on energy efficiency.

1.3 Deliverables

- Submit a document listing the documents received, what has been verified and validated and what is missing. After approval by the Client Representative, make necessary changes or produce the missing documents. Resubmit for final approval;
- Confirmed or adjusted schedule or project Cost Plan;
- Exhaustive summary of Project Brief and program demonstrating comprehension of the scope of work, including the following: identification in writing of problems, conflicts or other information perceived / assumptions for clarification to be considered by the Departmental Representative;
- Description and validation of proposed elements;
- Class D Estimate, Construction budget, indicated in this Request for Proposals;
- Validation of the Code Study prepared by others and/or adjustment of the Code Study, as necessary;
- Submission of a Sustainable Development Action Plan applied to the project with schedule;
- Report on all applicable codes, regulations, standards and authorities having jurisdiction;
- Overview of potential strategies to consider for the project and Gold-level LEED NC Checklist with comments for project credits;
- Submission of a Sustainable Development Action Plan applied to the project with schedule; and
- Inform the Departmental Representative of the geotechnical studies required for building design; among other information, the Consultant shall inform the Departmental Representative of the number of boreholes, their location and the information needed that must be included in the geotechnical study to be prepared as part of another mandate. This study will then be submitted to the Consultant for the remainder of the design.

2.0 Deliverables

2.1 Purpose

This phase was carried out by others. The Consultant is responsible for all pre-design service deliverables developed by others and which are needed to carry out a project of standard quality.

The Consultant shall ensure that this phase is approved by the Client, since the approved documents will constitute the scope of services to be used throughout the project as the reference document. The Consultant shall identify whether any information is missing in relation to this phase. The Consultant shall submit to the Departmental Representative a document listing the documents received, what has been verified and validated and what is missing with respect to the phase.

The Consultant shall notify the Departmental Representative and submit to the Departmental Representative a detailed Work Plan for performance of the work to produce the documents missing at this phase. After approval by the Departmental Representative, the Consultant may make the necessary changes or produce the missing documents. Resubmit for final acceptance by the Departmental Representative.

2.2 General

Scope of Work

The Consultant shall ensure that the documents produced by others during the pre-design services development phase (RS1) are complete and current:

1. Feasibility Studies / Options Analysis;
2. Functional Programs;
3. Implementation Strategy and Schedule;
4. Detailed Investigation Reports;
5. Sustainable Development Strategies Report;
6. Hazardous Waste Disposal Strategies Report;
7. Facility Equipment Evaluation and Recommendations Report;
8. Proximity Requirements Report;
9. Telecommunications Requirements Report;
10. Security Requirements Report;
11. Environmental Clean-up Report;
12. Decommissioning Report; and
13. Order of Magnitude Cost Report.

2.3 Deliverables

Where documents that should have been prepared by others are missing, the Consultant shall update the deliverables of the pre-design services-development phase, if necessary. Submit a document listing the documents received, what has been verified and validated and what is missing in relation to this phase. After approval by the Departmental Representative, make necessary changes or produce the missing documents. Resubmit for final approval.

RS 2 VALIDATION OF DESIGN CONCEPTS

2.1 Purpose

This phase was carried out by others. As such, the Consultant shall be responsible for project requirements as they relate to spatial parameters and shall validate that the design option prepared by others reflects these. The Consultant shall conduct an analysis based on the program priorities and objectives identified earlier. Validate the option developed by others and recommend the design finalized by others. Validate, adjust and review the deliverables developed by others for this phase, if necessary.

The Consultant shall ensure that this phase is approved by the Client, since the approved documents will constitute the scope of services to be used throughout the project as the reference document. The Consultant shall identify whether any information is missing in relation to this phase. The Consultant shall submit to the Departmental Representative a document listing the documents received, what has been verified and validated and what is missing with respect to the phase.

The Consultant shall notify the Departmental Representative and submit to the Departmental Representative a detailed Work Plan for performance of the work to produce the documents missing at this phase. After approval by the Departmental Representative, the Consultant may make the necessary changes or produce the missing documents. Resubmit for final acceptance by the Departmental Representative.

2.2 General

2.2.1 Scope of Work

- Ensure that all the required information is present;
- Validate whether the design option (drawings and specifications) is viable and whether it can be implemented;
- Analyze and validate the solution based on project objectives, including the Total Cost Analysis for the budget (preliminary Class C Cost Estimate – contingency allowance of 15%) and the Project Schedule;
- Recommend one option for further development with all supporting background and technical justifications;
- Verify and validate the Gold-level LEED NC processes and update them if necessary;
- Verify and validate the Code Study and update it as necessary;
- Recommend the option developed by others for further development; and
- Verify and validate compliance with all statutes, standards, codes and regulations applicable to the project.

2.3 Details

Verify and validate the following elements prepared by others. Identify any missing elements and inform the Departmental Representative of that fact. If any elements are missing, identify them, obtain authorization from the Departmental Representative and produce them to ensure that the next RS phases can be performed:

2.3.1 Architectural Drawings

- Site plan showing proposed and existing building/facility outlines, orientation, main accesses and traffic patterns;
- Schematic diagrams of proposed and existing building/facility areas, alternatives showing relative disposition of main accommodation areas, circulation patterns, numbers of floors, etc.;
- Sketch elevations and sections indicating the basic design approach and esthetic philosophy;
- Sketch perspectives or massing studies;
- Outside gross building/facility areas and summary of main accommodation areas required and proposed;
- Horizontal and vertical space relationships; and
- Traffic simulations.

2.3.2 Structural Drawings

- Proposed or alternative structural systems, including foundation methods and explanatory sketches, etc., and a copy of the site report on which the design is based.

2.3.3 Mechanical Drawings

The concept submission shall include a description of specific mechanical requirements and function for each area (room) in the buildings/facilities. Incorporate in the submission a schedule of requirements listing all rooms and identify the mechanical building services to be provided.

- Explain in the concept submission the manner in which the proposed mechanical systems correlate with user requirements;
- Identify the volume of outdoor air to be supplied per person;
- Identify the delivery rate of supply air to occupied spaces;

- Identify whether full-time operating staff will be needed for operation of any of the mechanical equipment. Differentiate between staff that is needed by code requirements versus staff which may be needed because of the nature and size of the facility;
- Identify location of entry point into the building of all mechanical services into the building;
- Identify in square metres the area to be provided for mechanical rooms. Identify location of mechanical spaces in the building;
- Analysis of alternative mechanical schemes at the conceptual design stage shall reveal energy consumption of building systems, operating and maintenance costs on a month-by-month basis for a time span of one year. Accordingly, the estimated energy, operating and maintenance costs shall be used in life cycle cost analyses in order to determine the most beneficial mechanical systems alternative. Life cycle cost analyses shall be based on a projected building life of 25 years;
- Carry out energy analysis on system alternatives;
- Establish an energy budget for the building/facilities and compare it to energy consumption of other similar buildings/facilities. Total energy consumed in the building shall be expressed in kWh/m^2 and GJ/m^2;
- Identify the type of boiler to be used (i.e., cast iron sectional, fire tube) and provide an economic and technical explanation of the reasons for this choice; and
- List of non-Canadian products and materials proposed for the project with written justification.

2.3.4 Electrical Drawings

- Proposed basic electrical systems of significance to the early design;
- Site plan showing location of service entrances;
- Distribution diagram showing single line diagrams to distribution centres;
- Drawings complete with locations of major electrical equipment and distribution centres;
- Location of light fixtures (inside and outside);
- Location of power outlets;
- Ceiling distribution systems for lighting, power and telecommunications;
- List of standard details to be utilized;
- Telephone rooms, conduits and telecommunication cable systems requirements and layout;
- Provide an electrical design synopsis describing the electrical work in sufficient detail for assessment and approval by the Department. Include feasibility and economic studies of proposed systems complete with cost figures and disbursements; and
- List of non-Canadian products and materials proposed for the project with written justification.

2.3.5 Commissioning

- Define commissioning requirements;
- Identify (where necessary) in square metres the area for planning with respect to maintenance personnel, including storage and workshops for mechanical, electrical and housekeeping; and
- Define project archives.

2.3.6 Sustainable Development

- Validate the design options developed by others and validate the chosen environmental protection strategies and assess these. Adjust and review where necessary;
- Environmental Assessment and the *Canadian Environmental Assessment Act* Screening Report (to include comment on all the design options); and

- Incorporate Gold-level LEED NC principles into the design and construction, with particular emphasis on energy efficiency while complying with the available budget. Gold-level LEED NC certification is mandatory.

2.4 Deliverables

- Description of the option prepared by others with recommendation;
- Class C Cost Estimate, including methodology of the estimate, assumptions made, costing alternatives and life cycle costs;
- Report on deviations from schedule and recommend corrective measures or updated timeline;
- Preliminary analysis report of current applicable codes, standards, acts and regulations;
- Preliminary outline specification indicating the main electrical and mechanical elements submitted in Uniformat II structure;
- Description of building components with data on design (capacity, performance, pre-sizing, etc.) structured as an EPD for all disciplines;
- Total Cost Analysis studies and reports applied to major electrical and mechanical systems as well as to the building envelope;
- Analysis report on maintenance costs for the assessed options;
- Update of project checklist with comments, where applicable;
- Code Study update;
- Traffic simulations; and
- Update of Gold-level LEED NC Checklist for project credits.

RS 3 DESIGN DEVELOPMENT

3.1 Purpose

This phase was carried out by others. The Consultant is responsible for project requirements respecting the scope and nature of the entire project as to architectural, structural, mechanical and electrical, civil, landscaping, material elements as well as such other elements as may be required.

The Consultant shall ensure that this phase is approved by the Client, since the approved documents will constitute the scope of services to be used throughout the project as the reference document. The Consultant shall identify whether any information is missing in relation to this phase. The Consultant shall submit to the Departmental Representative a document listing the documents received, what has been verified and validated and what is missing.

The Consultant shall notify the Departmental Representative and submit to the Departmental Representative a detailed Work Plan for performance of the work to produce the documents missing at this phase. After approval by the Departmental Representative, the Consultant may make the necessary changes or produce the missing documents. Resubmit for final acceptance by the Departmental Representative.

3.2 General

Verify and validate the following elements prepared by others. Identify any missing elements and inform the Departmental Representative of that fact. If any elements are missing, identify them, obtain authorization from the Departmental Representative and produce them to ensure that the next RS phases can be performed.

Scope of Work

- The Client's written acceptance is provided as regards the development of the proposed Concept Design option;
- If any alterations are demanded, document all required changes, analyze the impact on all project components, and resubmit for approval if required;
- Expand and clarify the Concept Design intent for each design discipline;
- Present design materials to the Client, the Design Review Committee or other committees as indicated by the Departmental Representative;
- Present the design to the government or local authorities where required;
- Analyze the constructability of the project and advise on the construction process and duration;
- Ensure design coordination of all disciplines;
- Based on all material available at the time, prepare a milestone schedule for consideration with special attention to the impact on tenants;
- Verify and ensure compliance with all statutes, regulations, codes and municipal by-laws applicable to the project design;
- Provide a list of all NMS sections to be used. Submit outline specifications for all systems and principal components and equipment. Provide in the outline specifications manufacturers' literature about principal equipment and system components proposed for use in the project;
- Hold coordination meetings (charrettes) to develop ecological choices and design decisions;
- Update the Gold-level LEED NC process;
- Update the Code Study; and
- Present the design to the government or local authorities where required.

3.3 Details

Verify and validate the following elements prepared by others. Identify any missing elements and inform the Departmental Representative of that fact. If any elements are missing, identify them, obtain authorization from the Departmental Representative and produce them to ensure that the next RS phases can be performed.

Scope of Work

3.3.1 Architectural Drawings

Site plan showing the existing and/or proposed building(s) and environmental elements, including:

Traffic patterns

- Pedestrians
- Private motor vehicles
- Public transit
- Service roads

Traffic simulations

- Parking
- Employees
- Visitors
- Parking and offloading areas for service vehicles

Earthwork

- Existing and proposed elevations
- Landscaping
  Main planting and grassed areas. Where possible, show the location of underground utilities in relation to proposed plantings. Indicate the purpose of the plantings, such as windbreak, screen or erosion control.
- Cross sections
  Prepare cross-sections through the site to show the relationship of existing buildings to proposed ground elevations and plantings, in order to illustrate the three-dimensional aspects of the site. Include simple perspective sketches of main features if necessary.
- Drawings showing all rooms required, including all necessary circulation areas, stairs, elevators, etc., and ancillary spaces anticipated for service use. Define areas relating to fall-out shelter space. Indicate building grids, modules, etc., and key dimensions.
- Furniture and equipment plans
- Elevations of exterior building facades showing all doors and windows accurately sized and projected from the floor plans and sections. Indicate clear floor and ceiling levels and any concealed roof levels.
- Cross-sections through the building(s) to show floor levels, room heights, inner corridor or court elevations, etc.
- Detail sections of walls or special design features requiring illustration and explanation at this stage, including fireproofing methods.

3.3.2 Structural Drawings

- Drawings showing the proposed structural elements, type of foundation, construction materials, details for retaining walls and exterior cladding as well as all other proposed details that are important or unusual. The drawings may be separate from the architectural drawings or be included in them. Include a copy of the site investigation report on which the design is based; and
- Update seismic report.

3.3.3 Mechanical Drawings

- Site plan showing service entrances for water supply, sanitary and storm drains and connections to public utility services, including all key invert elevations;
- Drawings showing preliminary sizing of ventilation, cooling and heating systems showing locations, and all major equipment layouts in mechanical rooms;
- Drawings of plumbing system, showing routing and sizing of major lines and location of pumping and other equipment where required;
- Drawings of the fire protection systems showing major components;
- Produce the preliminary designs based on the approved concept. Update the energy analysis and energy budget established at the Concept Design stage;
- Update the schedule of requirements;
- Provide information of all internal and external energy loads in sufficient detail to determine the compatibility of the proposal with existing services, approved concept and energy budget;
- Analysis of selected equipment and plant with schematics and calculations sufficient to justify the economy of the selected systems;
- Describe the mechanical systems to be provided and the components of each system;
- Describe the proposed operation of the mechanical systems;
- Explain what operating staff will be needed to operate the building systems and the expected functions of the operations staff;
- Describe the building systems control architecture. Provide preliminary EMCS network architecture, mechanical control schematics, and sequence of operation;
- Explain the acoustical and sound control measures that are to be included in the design; and
- Describe the selected forms of renewable energy as well as their installation and mode of operation; attach the operating diagrams for heating, air conditioning and ventilation; attach calculations showing the economic benefits of the selected systems.

3.3.4 Electrical Drawings

- Provide drawings showing advanced development of the following:
  - ❖ Single line diagram of power circuits with their metering and protection, including:
    a. Complete rating of equipment;
    b. Ratios and connections of CTs and PTs;
    c. Description of relays when used;
    d. Maximum short-circuit levels on which design is based;
    e. Identification and capacity of services; and
    f. Connected load and estimated maximum demand on each load centre.
  - ❖ Electrical plans with:
    a. Floor elevations and room identification;
    b. Legend of all symbols used;
    c. Circuit numbers at outlets and control switching identified;

d. All conduit and wire sizes except for minimum sizes, which should be given in the specification;
e. A panel schedule with loadings for each panel; and
f. Telephone conduits system layout for ceiling/floor distribution.

- ❖ Riser diagrams for lighting, power, telephone and telecommunication cable systems, fire alarm and other systems;
- ❖ Elementary control diagrams for each system;
- ❖ Schedule for motors and controls;
- ❖ Complete lighting layout and fixture schedule clearly indicating methods of circuiting, switching and fixture mounting;
- ❖ Electric heating layout and schedule; and
- ❖ Provide the following data:
  a. Total connected load;
  b. Maximum demand and diversity factors;
  c. Sizing of standby load; and
  d. Short-circuit requirements and calculations showing the ratings of equipment used.

3.3.5 Commissioning

- Define operational requirements;
- Define commissioning requirements;
- Prepare a Commissioning Brief describing major commissioning activities for mechanical, electrical and integrated system testing; and
- Define and establish project specific archives.

3.3.6 Sustainable Development

- Develop Design and evaluate options exploring positive environment strategies; and
- Environmental impact assessment as per the *Canadian Environmental Assessment Act*, 2012 (CEAA) (including all proposed design options).

3.3.7 Specifications

- Provide a list and draft specification sections of all NMS sections to be used;
- Submit outline specifications for all systems and principle components and equipment;
- Provide in the outline specifications manufacturers' literature about principal equipment and system components proposed for use in the project; and
- Highlight proposed "green" materials, components and systems.

3.3.8 Cost Plan

- Update Cost Plan;
- Highlight changes from preliminary Cost Plan; and
- Include cash flow analysis.

3.3.9 Cost Estimate

- Provide Class B (substantive) Cost Estimate; and
- Highlight changes from Class C (indicative) Cost Estimate.

3.3.10 Timeline (Schedule)

- Update timeline (schedule); and
- Highlight changes to the timeline.

3.4 Deliverables

Verify and validate the following elements prepared by others. Identify the elements received and any missing ones and inform the Departmental Representative of that fact. If any elements are missing, identify them, obtain authorization from the Departmental Representative and produce them to ensure that the next RS phases can be performed. The Consultant shall ensure that all the following information prepared by others has been provided to it and is compliant with project requirements as well as the applicable statutes, standards and regulations:

- Drawings that include all disciplines showing all floor elements and services to detail necessary to make all design decisions and to substantially estimate the cost of the project;
- Two (2) building sections;
- Demolition plans where necessary;
- Architectural, structural and civil engineering, millwork and finishing details to determine choice of materials and finishes;
- Reflected ceiling plans;
- Elevations;
- 3D models of the site and the building/installations as necessary;
- Schedules of finishes and colour schemes;
- Description of building components with data on design structured as an EPD;
- Final Total Cost Analysis studies and reports applied to major electrical and mechanical (HVAC) systems as well as to the building envelope;
- Analysis report on maintenance costs for the assessed options;
- Code Study update;
- Operating diagrams for heating, air conditioning and ventilation systems, including the selected renewable energy sources;
- Traffic simulations;
- Outline specifications for all systems and principle components or equipment;
- Class B Cost Estimate for construction;
- Preliminary construction schedule including long-lead delivery items;
- Fire protection engineer's report including requirements, strategies or interventions for protection of the building and its occupants;
- Project file detailing the basic assumptions of the project and the justifications for all major decisions;
- Commissioning plan;
- Updated SDS report;
- Updated Cost Plan and cash flow;
- Schedules of finishes and colour schemes and samples; and
- If any documents are missing, the Consultant shall identify them, inform the Departmental Representative of that fact and, after approval by the Departmental Representative, produce the missing deliverables to obtain approval before continuing with phase RS4.

RS 4 CONSTRUCTION DOCUMENTS

4.1 Purpose

The Consultant shall review all available documentation in order to produce final and complete drawings and specifications in phase RS4. It shall establish what is missing in phases RS1, RS2 and RS3 so that it may proceed with phase RS4. The Consultant shall take into consideration all requirements. It must show that it has identified and assessed the conflicts and/or problems. The proposed mode of execution, schedules and estimates shall reflect a proper understanding of the scope of work to be performed.

The information available on the advanced initial development plans has been approved by the Client Department. Elements for which the design is not yet finalized must obtain approval by the Departmental Representative and the Client Department.

After approval of the previous phase (RS3) by the Departmental Representative and factoring in the representative's comments, develop the Construction Documents for the selected proposal prepared by others.

Prepare an intermediate submission of drawings and specifications at 30% and 60% progress for review by PWGSC Architectural and Engineering Services. This includes submitting computer files for content verification under the National CAD Standard, the directory structure and the standardized conventions of tender documents on CD-ROM.

At every phase and sub-phase, the Consultant is responsible for ensuring that all documents produced are properly and completely coordinated among all the disciplines and specialties involved in the project.

Prepare, in both official languages (see AS1), the construction drawings, which must be coordinated among all disciplines involved, the technical specifications and the descriptive specification at 99% progress. These documents constitute the entire file that a contractor can use to establish a bid and to build the structure. In the event of a coordination problem or error, corrections shall be carried out at the expense of the Consultant.

In this phase, drawings and specifications are prepared, describing in detail the requirements for carrying out the work and establishing the final project Cost Estimate.

- Prepare a Class A Pre-Tender Estimate, with a 5% contingency allowance, establishing the project's total cost;
- Update the project execution timeline (schedule); and
- Follow up on the Review Reports from Architectural and Engineering Services after the intermediate (60%) and complete (99%) submissions.

Note that the percentage of 60% indicates that the project's technical development is fairly advanced; i.e., the specifications, schedules, and detail and construction drawings for architecture and engineering are just over halfway complete (60%).

Note that the percentage of 99% indicates that the Construction Documents are complete and coordinated among the various disciplines for the purpose of the tender call and for submission for review by local authorities prior to application for the requisite permits. This includes, in particular:

- Developing a project-specific Systems Operations Manual (SOM); and
- Final submission, which incorporates all revisions required in the 99% version and is intended to provide the PWGSC Project Manager with complete Construction Documents for the tender call.

4.2 General

The activities are similar for each 30%, 60% and 99% sub-phase. The stage of a submission should reflect the status of the project's development. The Consultant is responsible for the quality assurance process.

Scope of Work

- Obtain the Departmental Representative's approval for Design Development submissions (30%, 60%, 99% and final);
  a. Confirm format of drawings and specifications;
  b. Clarify special procedures (i.e., phased construction);
  c. Submit drawings and specifications at the required stages (30%, 60%, 99% and final);
  d. Provide written response to all review comments and incorporate them into Construction Documents where required;
  e. Advise as to the progress of Cost Estimates and submit updated Cost Estimates as the project develops;
  f. Update the Project Schedule;
  g. Prepare a final Class A Estimate; and
  h. Review and approve materials and construction process specifications to meet sustainable development objectives;
- Update of Gold-level LEED NC Checklist with comments;
- Review specifications for construction materials and processes and confirm that they allow for Gold-level LEED NC certification;
- Prepare the administrative file and technical file (simulations technical data sheets, interpretation requests, reports, etc.) required for Gold-level LEED NC certification;
- Final analysis report on current applicable statutes, regulations, codes and standards;
- Final Total Cost Analysis studies and reports applied to major electrical and mechanical systems as well as to the building envelope; and
- Submission of the Construction Waste Management Plan.

4.3 Details

The following is a non-exhaustive list of services for each discipline. Some of the activities listed below may require the participation of several or all professionals. The Consultant shall coordinate its various team members (including Sub-Consultants and Specialist Consultants) and is responsible for performance of all elements in the mandate. The Consultant is responsible for ensuring that all the documents produced and information supplied are coordinated among all disciplines. This includes, but is not limited to:

Scope of Work

4.3.1 Technical and Production Meetings

- Production of Construction Documents will be reviewed during the meetings arranged by the Departmental Representative and Consultant;
- Representatives of the Client Department and PWGSC support staff will be present as arranged by Departmental Representative;
- The Consultant shall ensure that its staff and the Sub-Consultant representatives attend the technical and production meetings as required;
- The Consultant shall arrange for all necessary data, progress prints, etc.; and
- The Consultant shall prepare minutes of the meetings and distribute copies to all participants.

4.3.2 Progress Review

- As work progresses on construction drawings, submit drawings, schedules, details, pertinent design data and updated Cost Plan and Project Schedule as required.

4.3.2.1 Mechanical

- Flow diagrams, system layouts, equipment selections and sizes, floor plan layouts showing major equipment;
- All major ductwork sized and shown on drawings including layout of all major mechanical and transformer rooms;
- EMCS network architecture, mechanical control schematics, sequence of operation for each mechanical system, electrical control schematics, DDC input/output point schedules;
- Commissioning plan;
- Update the building load calculation, energy analysis and energy budget;
- Submit at the stipulated progress submission all calculations for mechanical design and equipment selection. These calculations shall be bound (3-ring binder) and indexed;
- Calculations submitted shall not necessarily be reviewed. They are required for record purposes and in certain instances to assist in the understanding and interpretation of designs. Calculations shall be submitted in a format that is legible, neat and easily understandable; and
- Specifications and an index of specifications. The specifications shall consist of typed and edited PWGSC amended NMS sections, PWGSC in-house master specs sections and NMS sections.

4.3.2.2 Electrical

- Depending on project progress, drawings will contain more detailed information on the following aspects:
- Single line diagram of the power circuits with their metering and protection, including:
  a. Complete rating of equipment; ratios and connections of CTs and PTs;
  b. Description of relays when used;
  c. Maximum short-circuit levels on which design is based;
  d. Identification and capacity of services; and
  e. Connected load and estimated maximum demand on each load centre.
- Electrical drawings shall include the following (**as may be applicable to the project**):
  a. Floor elevations and room identification;

b. Legend of all symbols used;
c. Circuit numbers at outlets and control switching identified;
d. All conduit and wire sizes except for minimum sizes, which should be given in the specification; and
e. A panel schedule with loadings for each panel; telephone conduits system layout for ceiling/floor distribution.

- Riser diagrams for lighting, power, telephone and telecommunication cable systems, fire alarm and other systems:
  h. Elementary control diagrams for each system;
  i. Schedule for motor and controls;
  j. Complete lighting layout and fixture schedule clearly indicating methods of circuiting, switching and fixture mounting; and
  k. Electric heating layout and schedule.

- Provide the following data:
  a. Total connected load;
  b. Maximum demand and diversity factors;
  c. Sizing of standby load;
  d. Short-circuit requirements and calculations showing the ratings of equipment used; and
  e. Voltage drop.

- Calculations submitted shall not necessarily be reviewed. They are required for record purposes and in certain instances to assist in the understanding and interpretation of designs. Calculations shall be submitted in a format that is legible, neat and easily understandable.
- Specifications and an index of specifications. Use the most recent version of the NMS. Use the sections specific to PWGSC, where applicable.

4.3.2.3 Architectural Drawings

- Complete drawings showing the scope of the work and work location at the site.

4.3.2.4 Structural Drawings

- Complete drawings showing the scope of the work and work location at the site.

4.4 Deliverables

Deliverables are similar at every stage; the progress of project development should reflect the stage of a submission. If the progress of documents is less then what is required, and if the documents are not coordinated among all disciplines, the Consultant shall resubmit its work.

4.4.1 99% Submission

Complete specifications and construction drawings (hard copy and PDF format):

- 99% complete Commissioning Plan and SOM;
- One copy of the complete colour schedules, including textures, sheens, super-graphics, colour chips and material samples;
- One copy of site information, soil investigating report, geological sections, borehole logs, etc.;
- One copy of concept, design and other criteria required by PWGSC Engineering disciplines for final checking and record;
- One copy of updated Cost Plan and Project Schedule;
- Updated Code Study;

- Final Total Cost Analysis studies and reports applied to major electrical and mechanical systems as well as to the building envelope; and
- Analysis report on maintenance costs for the assessed options.

4.4.2 Final Submission

This submission incorporates all revisions required by the review of the 99% submission. Provide the following:

- Complete set of construction drawings (hard copy, PDF and DWG formats);
- Complete sets of specifications (hard copy, PDF and DWG formats);
- Class A Cost Estimate for construction;
- Complete Commissioning Plan;
- Complete SOM;
- Complete set of original Colour Schedule;
- One set of soil investigating report with amendments if any;
- One set of designated substance survey report; and
- As a safeguard against loss or damage to the originals, retain a complete set of drawings in reproducible form and one copy of the specification.

Inspection Authorities Submission

- Submit and obtain approval on drawings and specifications required by Inspection Authorities before tender call, in accordance with instructions in the document entitled "Doing Business – Quebec Region."
- Submit a CD with electronic files of drawings in all disciplines for verification of compliance with the PWGSC National CAD Standard.

Deliverables

1. Minutes of meetings;
2. Intermediate submission: drawings and specifications when 30% and 60% complete;
3. Complete submission: bilingual bid documents, technical specifications, descriptive specifications, and construction drawings when 99% complete;
4. Class A (Pre-Tender) Estimates;
5. Updated execution timeline; and
6. Written responses to the *Review Reports* from Architectural and Engineering Services and related correspondence.

RS 5 TENDER CALL, BID EVALUATION AND CONSTRUCTION CONTRACT AWARD

5.1 Purpose

The purpose of this phase is to obtain and evaluate bids from qualified Contractors to construct the project as per the Tender Documents, to evaluate them, and to award the construction contract according to government regulations, including the Federal Standard Rules of Practice for Bid Depositories. The construction project will be carried out in Design-Bid-Build mode. However, the mode of execution may be amended further to discussions between the Consultant and the Departmental Representative if another option is more advantageous in terms of cost, time and quality.

5.2 General

Scope of Work

- Provide all documents required to conduct the tender call for Contractors. This requires that all documents be of good quality and be coordinated among the disciplines. This responsibility falls to the Consultant;
- Prepare the tender schedule;
- Attend information meetings for Bidders;
- Prepare addenda based on questions raised at such meetings for distribution by the Project Manager;
- Provide the Project Manager with all information required by Bidders to properly interpret the Construction Documents. The Project Manager will issue the addenda to all participants;
- Keep full notes of all inquiries during the bidding period and submit same to Project Manager at the end, for PWGSC records;
- Assist in bid evaluation by providing advice on the following:
    1. The completeness of bid documents in all respects;
    2. The technical aspects of the bids;
    3. The effect of alternatives and qualifications that may have been included in the bid;
    4. The Bidders' ability to undertake the full scope of work; and
    5. The availability of adequate equipment to carry out the work;
- If PWGSC decides to re-tender the project, provide advice and assistance to the Project Manager;
- Revise and amend, at your cost, the Construction Documents to bring the cost of the work within the limits stipulated; and
- Examine and report on any cost and schedule impact created by the issue of tender/contract addenda.

5.3 Deliverables

- Originals of drawings and specifications;
- Electronic copies of drawings and specifications, in accordance with instructions in the document entitled "Doing Business – Quebec Region";
- Addenda where needed;
- Changes to the documents, if re-tendering is necessary; and
- Updated Cost Estimate or Project Schedule.

RS 6 CONSTRUCTION AND CONTRACT ADMINISTRATION

6.1 Purpose

The purpose of this phase is to implement the project in compliance with the Contract Documents and to direct and monitor all necessary or requested changes to the scope of work during construction.

6.2 General

Scope of Work

- During the implementation of the project, act on PWGSC's behalf to the extent provided in this document;
- Carry out the review of the work at intervals appropriate to determine if the work is in conformity with the Contract Documents;
- Keep PWGSC informed of the progress and quality of the work and report any defects or deficiencies in the work observed during the course of the site review;
- Ensure compliance with Commissioning Plan, update plan as necessary;
- Determine the amounts owing to the Contractor based on the progress of the work and certify payments to the Contractor;
- Act as interpreter of the requirements of the Contract Documents;
- Provide cost advice during construction;
- Advise the Project Manager of all potential changes to scope for the duration of the implementation;
- Draft the Contemplated Changes Notices (CCNs) to be distributed by the Departmental Representative and justify these based on the instructions of the Consultant(s) concerned;
- Submit a Cost Estimate for each CCN to the Departmental Representative;
- Analyze the Contractor's quotations and negotiate with the Contractor, where necessary, within two (2) working days following receipt of the quotation;
- Provide the Departmental Representative with a recommendation for issue of Change Order (CO);
- Keep a record of CCNs detailing the history of each until the date at which a CO is issued;
- Indicate any changes or material/equipment substitutions on Record Documents;
- Review the Contractor's submittals;
- Prepare and justify COs for issue by the Departmental Representative;
- Indicate any changes or material/equipment substitutions on Record Documents;
- During the twelve (12) month warranty period, investigate all defects and alleged defects and issue instructions to the Contractor;
- Prepare and post Systems Operating Instructions;
- Finalize SOM;
- Conduct a final warranty review;
- Monitor construction by overseeing the technical applications of the Gold-level LEED NC Checklist;
- Approve the construction materials and systems based on the ecological criteria required in the tender documents;
- Make sure all end-of-project documents and manuals are complete and comply with Contract requirements before submitting them to the Departmental Representative;
- Finalize SOM;
- Perform quality control of the work to ensure that performance requirements under the SDS are met;
- Make sure the Construction Waste Management Plan is being followed; and
- Verify commissioning during the construction period for all disciplines.

6.3 Details

The list below is non-exhaustive and in no way limits the professional obligations of the Consultant, its Sub-Consultants and Specialist Consultants.

Scope of Work

6.3.1 Briefing Meetings Prior to Construction

- Immediately after Contract award, arrange a briefing meeting with the Contractor and the Departmental Representative. The Consultant shall prepare the minutes of the meeting and distribute copies to all participants and to other persons agreed upon with the Project Manager.
- Call site meetings as frequently as required (at least once every two weeks), commencing with the construction briefing meeting. The meetings should include the job superintendent, Inspector of Construction, main Sub-Subcontractors, affected Sub-Consultants, the Client, the Departmental Representative, and any other persons as necessary. Prepare minutes of the meetings and distribute copies to all participants. The Project Manager may invite the Client to attend any of these meetings.

6.3.2 Project Schedule

- Once the construction contract is awarded, obtain the Project Schedule from the Contractor. This schedule shall be detailed enough for use in monitoring the commissioning component, shown separately; it shall be distributed appropriately.
- Monitor the approved construction schedule, take necessary steps to ensure that the schedule is maintained and submit a detailed report to the Departmental Representative concerning any delays.
- Keep accurate records of causes of delays and associated costs.
- Make every effort to assist the Contractor to avoid delays with respect to the Project Schedule, in particular by acting proactively and with agility and by providing the Contractor with clear, accurate answers that are consistent with requirements.

6.3.3 Time Extensions

- Only the Department can approve a request to extend a deadline. Approval will be issued in writing by the Project Manager.

6.3.4 Cost Breakdown

- Obtain from the Contractor a detailed cost breakdown on standard PWGSC form and submit to the Department with the first Progress Claim.

6.3.5 Subcontractor Changes

- The Contractor is required to use the Subcontractors listed on the tender form unless the Department authorizes a change. Changes are only considered when they involve no increase in cost. Review all requests for changes of Subcontractors, and submit recommendations to the Project Manager.
- When Subcontractors have not been listed on the tender form, obtain the list from the Contractor not later than 10 working days after the date of award.

6.3.6 Labour Requirements

- The Contractor is bound by the Contract to maintain competent and suitable workers on the project and to comply with the Canada Department of Labour – Labour Conditions. The Consultant shall inform the Department of any labour situations or working conditions that appear to require corrective action by the Department.

- The Consultant shall ensure that a copy of the Labour Conditions for the Contract is posted in a conspicuous place on site.

6.3.7 By-law Compliance

- Ensure that construction complies with applicable municipal by-laws and regulations.
- Matters pertaining to the Department of Labour shall be referred to the Consultant.

6.3.8 Construction Safety

- All project sites that are occupied by federal employees during construction are subject to the Act and the *Canada Occupational Health and Safety Regulations* as administered by Health and Welfare Canada.
- Fire safety provisions during construction must comply with FCC Standards 301 and 302, administered by the Federal Fire Commissioner.
- In addition to the above, the Contractor must comply with municipal safety laws and regulations, and with any instructions issued by the officers of authorities having jurisdiction relating to construction safety.
- Ensure the Contractor is mandated to provide all required coordination, isolation, protection and reinstatement of the fire protection and suppression systems throughout construction. Notify the Property Manager each time the fire protection and suppression systems are bypassed and advise of estimated reinstatement time. Ensure the Contractor is mandated to provide Watchman Service as defined in FC 301 and by the Fire Commissioner of Canada.

6.3.9 Site Visits (included in AS – Enhanced Site Supervision Services)

The Consultant shall:

- Provide non-resident construction inspection services. Ensure compliance with Contract Documents;
- Provide services of qualified personnel who are fully knowledgeable with technical and administrative requirements of project;
- Establish a written understanding with Contractors as to what stages or aspect of the work are to be inspected prior to being covered up;
- Assess quality of work and identify in writing to the Contractor and to the Departmental Representative all defects and deficiencies observed at time of such inspections;
- Prepare a Site Visit Note for every visit;
- Any list of directives, clarifications or deficiencies shall be issued in writing to the Departmental Representative;
- Ensure that the work is performed in accordance with the drawings and specifications. Assess quality of work and identify in writing to the Contractor and to the Departmental Representative all defects and deficiencies observed at time of such inspections;
- Inspect materials and prefabricated assemblies and components at their source or assembly plant, as necessary for the progress of the project; and
- Any list of directives, clarifications or deficiencies shall be issued in writing to PWGSC.

6.3.10 Clarifications

The Consultant shall:

- Provide clarifications on drawings and specifications or site conditions, as required in order that the project not be delayed.

6.3.11 Progress Reports

The Consultant shall:

- Report to the Departmental Representative regularly on the progress of the work. To this effect, submit reports once a week summarizing the planned activities, detailing the activities performed or not and assess the Contractor's employees at the site.

6.3.12 Work Measurement

- If work is based on Unit Prices, the Consultant shall measure and record the quantities for verification of monthly Progress Claims and the Final Certificate of Measurement.
- When a Contemplated Change Notice is to be issued based on Unit Prices, keep accurate account of the work. Record dimensions and quantities.

6.3.13 Detail Drawings

- Provide for the Departmental Representative's information any additional detail drawings as and when required to properly clarify or interpret the Contract Documents.

6.3.14 Shop Drawings

- Review shop drawings and technical data sheets submitted by the Contractor in order to ensure that they comply with the design and, if they are in compliance, inform the Contractor accordingly. Repeat the process until the documents are deemed compliant.
- On completion of the project, forward three (3) stamped copies of reviewed shop drawings to the Departmental Representative. Ensure that shop drawings include the project number and are recorded in sequence.
- Verify the number of copies of shop drawings required. Consider additional copies for review by Client Departments.
- Shop drawings shall be stamped: "Checked and Certified Correct for Construction" by the Contractor and stamped: "Reviewed" by the Consultant before return to the Contractor.
    - Expedite the processing of shop drawings. On completion of project, forward three (3) hard copies and one (1) electronic copy in PDF format of reviewed shop drawings to the Departmental Representative. Ensure that shop drawings include the project number and are recorded in sequence.

6.3.15 Inspection and Testing

- Prior to the tender call for Contractors, provide Departmental Representative with recommended list of tests to be undertaken, including on-site and factory testing.
- Ensure all testing is detailed within the Commissioning Plan.
- When Contract is awarded, assist Departmental Representative in briefing testing firm on required services, distribution of reports, communication lines, etc.
- Review all test reports and take necessary action with Contractor when work fails to comply with Contract.
- Immediately notify Project Manager when tests fail to meet project requirements and when corrective work will affect schedule.
- Assist Departmental Representative in evaluating testing firm's invoices for services performed.

6.3.16 Training

- Prior to tender call for Contractors, provide Departmental Representative with recommended list of training to be undertaken.
- Ensure all training is detailed in the Commissioning Plan.

6.3.17 Construction Changes

- The Consultant does not have authority to change the work or the price of the Contract.
- Analyze requests for modifications and submit to the Departmental Manager recommendations concerning the amount and relevance of modifications.
- The Contractor does not have the authority to approve modifications.
- Changes that affect cost or design concept must be approved by the Departmental Representative;
- Upon Departmental Representative approval, obtain quotations from the Contractor in detail. Review prices and promptly forward recommendations to the Departmental Representative.
- The Department will issue Consultant-prepared Change Orders to the Contractor, and a copy to the Consultant.
- Change Orders will cover all changes, including those not affecting the cost of the project.
- The practice of “trade-offs” is not allowed.

6.3.18 Contractor's Progress Claims

- Each month, the Contractor shall submit a Progress Claim for work and materials as required in the Construction Contract. Review requests for periodic payments and make appropriate recommendations.
- The claims are made by completing the following forms where applicable:
    - Request for Progress Payments;
    - Cost Breakdown for Unit and/or Combined Price Contract;
    - Cost Breakdown for Fixed Price Contract;
    - Statutory Declaration Progress Claim; and
    - Review and sign designated forms and promptly forward claims to the Department for processing.
- Submit with each progress claim:
    - Updated schedule of work progress; and
    - Photographs of work progress.

6.3.19 Materials on Site

- The Contractor may claim for payment of material on the site that was not incorporated in the work.
- Material must be stored in a secure place designated by the Departmental Representative.
- Detailed list of materials with supplier's invoice showing price of each item must accompany claim; Consultant shall check and verify the list.
- Items shall be listed separately on the Detail Sheet after the break-down list and total.
- As material is incorporated in the work, the cost must be added to the appropriate Detail item and removed from the materials list.

6.3.20 Acceptance Board

- The Consultant shall inform the Departmental Representative when satisfied that the project is substantially completed. The Consultant shall ensure that its representative, the representative of its Sub-Consultants, Resident On-Site Reviewer, Contractor and major sub-trades representatives shall

form part of the Project Acceptance Board and attend all meetings as organized by the Departmental Representative.

6.3.21 Interim Inspection

- Inspect the work and draw up lists of deficiencies and evaluate the value thereof.
- The Consultant shall inspect the work and list all unacceptable and incomplete work on a designated form. The Consultant shall accept the project from the Contractor subject to the deficiencies being corrected and incomplete work listed and priced.

6.3.22 Interim Certificates

- Payment requires completion and signing, by the parties concerned, of the following documents:
  - Interim Certificate of Completion;
  - Cost Breakdown for Fixed Price Contract;
  - Cost Breakdown for Unit and/or Combined Price Contract;
  - Inspection and Acceptance;
  - Statutory Declaration – Interim Certificate of Completion; and
  - Worker's Compensation Board Certificate.
- Verify that all items are correctly stated and ensure that completed documents and any supporting documents are furnished to the Departmental Representative for processing.

6.3.23 Building Occupation

- The Departmental Representative or Client Department may occupy the building after the date of interim acceptance of the building by the Acceptance Board. The acceptance date is normally that of the Interim Certificate issued to the Contractor. As of the acceptance date, the Contractor may cancel the Contract Insurance, and the Departmental Representative or Client Department (as the case may be) assumes responsibility for:
  - Security of the work(s);
  - Fuel and utility charges;
  - Proper operation and use of equipment installed in the project;
  - General maintenance and cleaning of the work(s); and
  - Maintenance of the site (except any landscaping maintenance covered by the Contract).

6.3.24 Operation and Maintenance Data Manual

- Operation and Maintenance Data Manual: four (4) hard copy sets and one (1) electronic copy (PDF) of each volume produced by Contractor in accordance with the sections in the project specification.
- The Consultant and the Sub-Consultants shall verify the completeness of the documents, their relevance and the format of submission. The documents shall be submitted to the PWGSC Project Manager prior to interim acceptance or actual start of the operation and instruction period, whichever occurs first. The Contractor shall retain one copy of each volume for its record and use during the instruction period.

6.3.25 Instruction of Operating Personnel

- Make arrangements and ensure that the Departmental Representative's operating personnel is properly instructed on the operation of all services and systems using the final manuals as reference.
- Consultant to provide training sessions, as required, on the subject of design intent and systems operations. Utilize SOM for training sessions.

6.3.26 Keys

- Ensure that all keys and safe combinations are delivered to the Departmental Representative and/or the Client Department as applicable.

6.3.27 Final Inspection

Inform the Departmental Representative when satisfied that all work under the Contract has been completed, including the deficiency items on the Inspection and Acceptance form as a result of the Interim Inspection. The Departmental Representative reconvenes the Acceptance Board which makes a final inspection of the project. If everything is satisfactory, the Board issues its final acceptance of the Contractor's project.

6.3.28 Final Certificate

- The final payment requires completion and signing, by the parties concerned, of the following documents:
  - Final Certificate of Completion;
  - Cost Breakdown for Fixed Price Contract;
  - Inspection and Acceptance;
  - Statutory Declaration – Final Certificate of Completion;
  - Cost Breakdown for Unit and/or Combined Price Contract;
  - Workmen's Compensation Clearance Certificate; and
  - Hydro Certificate.
- Verify that all items are correctly stated and ensure that completed documents and any supporting documents are furnished to the Departmental Representative for processing.

6.3.29 Take-over

- The official take-over of the project, or parts of the project, from the Contractor is established by the PWGSC Project Team, which includes the Consultant and the Representative of the Client Department. The date of Interim Certificate of Completion and the Final Certificate of Completion signifies commencement of the 12-month warranty period for work completed on the date of each certificate in accordance with the General Conditions of the Contract.
- Provide the Departmental Representative with the original copy of the Contractor's warranties for all material and work covered by an extended warranty or guarantee, according to the conditions of the specifications. Verify their completeness and extent of coverage.

6.3.30 As-Built and Record Drawings and Specifications

- Following the take-over, obtain as-built marked-up hard copy from the Contractor showing:
  - Significant deviations in construction from the original Contract drawings, including changes shown on Post-Contract Drawings, changes resulting from Change Orders or from On Site Instructions.
- Check and verify all as-built records for completeness and accuracy and submit to PWGSC.
- Produce record drawings by incorporating as-built information into project drawings.
- Submit record drawings and specifications in the number and format required by the Consultant Agreement within (8) weeks of final acceptance.
- Provide a complete set of final shop drawings.

6.4 Deliverables

- Written reports from site visits including persons involved;
- Written reports on the progress of the work and the cost of the project at the end of each month;
- Additional detail drawings when required to clarify, interpret or supplement the Construction Documents;
- Post-contract drawings;
- Interim or/and Final Certificates;
- Debrief of Commissioning Activities;
- As-built records;
- Warranty Deficiency List;
- Report on Final Warranty Review;
- As-built drawing on CD, in PDF and DWG format, in conformity with the PWGSC CAD standard for each discipline;
- As-built drawings in velum hard copy for each discipline; and
- List of spare parts for units and apparatus used in the project.

RS 7 COMMISSIONING THE FACILITY

Commissioning, as described in this section, shall be performed by the Enhanced Commissioning Specialist. The requirements under the Gold-level LEED NC Gold evaluation system shall be met.

As a member of the PWGSC team, the Commissioning Manager represents the Owner's and User's interests, and is responsible for overseeing all commissioning activities during the development, implementation and post-construction stages of the project.

Throughout this stage, the Consultant, its Sub-Consultants and Specialist Consultants on site shall work closely with the Commissioning Manager, PWGSC and the Contractor to implement commissioning activities and create useful, well-integrated drawings, reports and manuals, in compliance with Contract Documents.

7.1 Purpose

- Prepare a Commissioning Plan;
- Define the operational and maintenance requirements of the Owner and User;
- Ensure that responsibility for meeting these requirements and demonstrating compliance is defined in the design and Contract Documents;
- Ensure that appropriate start-up and control procedures are employed for components and subsystems and that meaningful documentation for and certification of Quality Control reports and techniques under regular basic or enhanced services and contractual procedures is prepared;
- Witness that the components, subsystems and systems are tested in accordance with the provisions of the Contract Documents;
- Examine and approve the commissioning documents as well as the operations and maintenance (O&M) manuals supplied by the Contractor;
- Provide complete documents describing the operations, maintenance and management requirements, and transfer the completed works to qualified facility operators;
- Minimize the life cycle operating and maintenance costs;

- Verify that the functional requirements of the Department and the Client Department are correctly interpreted during the design stage and that the building systems operate consistently at peak efficiencies, under all normal load conditions, and within the specified energy budget;
- Ensure that appropriate start-up and control procedures are employed for components and subsystems and that meaningful documentation for and certification of Quality Control reports and techniques under regular basic or enhanced services and contractual procedures is prepared;
- Prepare SOM for the facilities and Preventative Maintenance Support System documentation;
- Identify the Contractor's and Subcontractors' commissioning, performance verification (PV) and testing responsibilities;
- Plan the PV activities, develop the installation checklists and PV report forms, and prepare a detailed verification schedule for the Contractor. Keep detailed development reports;
- Carry out various checks and tests to determine if the new facilities function in accordance with the Contract Documents;
- Coordinate a training plan for the O&M staff to be trained on operation of the new facilities;
- Provide technical data sheets for materials, equipment, components and other specific elements proposed;
- Complete SOM;
- Update manuals as the project progresses;
- Document the operations, maintenance and management requirements, and transfer the completed works to qualified facility operators;
- Minimize the life cycle operating and maintenance costs;
- Verify that the Departmental Representative's functional requirements are correctly interpreted during the design stage, and that the building systems operate consistently at peak efficiencies, under all normal load conditions, and within the specified energy budget;
- In the O&M Manual, provide, in particular:
    - All design intent, sequence of operation, etc., for the SOM;
    - Emergency start -up/operations/shut-down procedures;
    - Single line diagrams of all systems;
    - List of equipment for the Client's preventative maintenance system; and
    - List of shop drawings; and
- Provide Commissioning Manuals, which include:
    - Equipment PV;
    - Test reports; and
    - Warranty expiration dates.

7.2 General

The list below is non-exhaustive and in no way limits the professional obligations of the Consultants, its Sub-Consultants and Specialist Consultants.

Scope of Work

- Prepare SOM and documentation on the Preventative Maintenance Support System (PMSS)/MMS and the Client's Energy Management System (EMS);
- The contents of the O&M Manual shall be in accordance with CP.4 O&M Manuals;
- Carry out various checks and tests to determine if the new facilities function in accordance with the Contract Documents;
- Identify Contractor and Subcontractor commissioning, PV and testing responsibilities;

- Plan the PV activities, develop the installation checklists and PV report forms, and prepare a detailed verification schedule. Maintain detailed development reports and review with the Contractor for special systems;
- PV inspection forms shall be completed for all components, sub-systems, and systems, and a final PV report shall be submitted to the Commissioning Manager;
- Prepare a training plan for the O&M staff to be trained on the operation of the new facilities. The training plan will recognize both short-term and long-term requirements and shall employ both hard copy and audiovisual techniques; and
- Provide documentation showing that the requirements for Gold-level LEED NC have been met.

7.3 Details

Scope of Work

7.3.1 Analysis of Project Brief and Design Development

O&M (General)

- Submit an O&M report showing how the design will meet O&M requirements, including the following subjects:
    - Spatial requirements for O&M staff (office, lockers, kitchen, showers, and washrooms, flow of people and supplies, storage for special tools, spare parts, and maintenance materials);
    - Cleaning (janitor closets, receptacle for vacuum, equipment supply and storage);
    - Capacity of the facility to change in response to program changes over its useful life;
    - Spare equipment, extra material and redundancies needed to operate and maintain this facility over its useful life;
    - System selection based on life cycle cost analysis considering energy, maintenance and operational costs;
    - Occupancy during construction;
    - Phasing of construction work;
    - Assist the Commissioning Manager in preparing a preliminary O&M budget. The O&M budget will contain detailed breakdown of various items with the assessment of the selected systems; and
    - Assessment of the following:
        i. Staffing and skill requirements to operate and maintain the facility; and
        ii. The need for service contracts, i.e., elevators, water treatment, controls for emergency generators, fire alarm, security
- Input into the Building Management Plan of information regarding operational management requirements. The report is submitted at the end of stage 1 and is updated at the end of stage 2. Respond to all PWGSC comments in writing before proceeding to the next stage.

OMM and SOM

- Complete design intent and prepare SOM;
- Submit report at the end of the design development stage; and
- Provide review comments and conditions for accepting preliminary O&M Manuals.

Design Submissions

- Ensure that all review comments are addressed to the satisfaction of the Commissioning Manager.

7.3.2 Construction and tender call documents

O&M (General)

- In consultation with the Commissioning Manager, continue the assessment that started during the design stage with respect to O&M concerns, including staffing, redundancies, spare equipment, extra material, service contracts, preventative maintenance, equipment identification, O&M facilities and O&M budgets;
- Ensure all review comments provided by the Commissioning Manager are addressed;
- Incorporate design and performance intent in the Construction Documents and identify anticipated performance outputs in PV forms; and
- Identify Contractor and Subcontractor commissioning, PV and testing responsibilities.

O&M Manuals (SOM)

- Provide all design intent, sequence of operation, etc., for the SOM;
- Provide emergency start-up/operations/shut-down procedures;
- Provide single line diagrams of all systems;
- Provide PMSS/MMS inventory lists and Valve Schedules;
- Provide service contract list; and
- Provide shop drawing list.

Commissioning Specification

- Use PWGSC disciplinary master specification for commissioning as the basis for the project specifications for commissioning. Complete design information required in the PV report forms;
- Specify detailed PV procedures and documents, scheduling and reporting requirements;
- Identify and include in specification all tests to be conducted at manufacturer's plants, on site during construction, installation, commissioning and during the operation phase; and
- Develop training package for O&M personnel and include in the specification as required.

"PMSS/MMS" Specification

- Use PWGSC Master Specification for the identification of equipment and inventory for the PMSS/MMS;
- Provide PMSS/MMS coding and system nomenclature in tender documents; and
- Coordinate with existing building equipment inventories.

Submission Requirements

- The Commissioning Plan is submitted at the end of the design phase and is updated and resubmitted at the end of each stage of the working documents. The Consultant and the Commissioning Manager work together to update the Commissioning Plan;
- The commissioning specifications are submitted at the end of the 50% construction drawings stage and are updated and resubmitted at each subsequent stage of the working documents;
- The O&M Manuals (SOM) are submitted at the end of the 50% construction drawings stage, and updated and resubmitted during subsequent stages of the working documents; and
- Respond to all PWGSC comments in writing at each stage.

7.3.3 Construction/Installation

- Three (3) months before substantial completion, assemble, review and approve all commissioning documentation, including checklists, PV report forms, instruments to be used and instrument calibration, and incorporate relevant data from reviewed shop drawings and installed component data.
- Assemble all certified tests results and incorporate into the O&M Manuals.

- Review the selected test instruments which are to be calibrated less than three (3) months prior to substantial completion;
- In consultation with the Contractor, select the commissioning test instruments.

  The Consultant shall:
  - Review the Contractor's and the Subcontractors' compliance with the Contract Documents;
  - Witness and certify tests conducted before concealment and start-up;
  - Verify that each system is completed, safe to operate and ready for start-up; and
  - Ensure that all deficiencies are rectified and acknowledge that the components and systems are ready for the commissioning phase;
- Manuals
  - Revise the SOM as construction progresses, ensuring that they reflect the installed systems. Submit the information to the Commissioning Manager for updating of own copies of the manuals;
  - The Consultant shall review for acceptance the Contractor's O&M Manuals; and
  - Submit all manuals to the Commissioning Manager for review and acceptance. The maintenance manual shall be in accordance with the CP-4 standard; and
- Training
  - Cooperate with the Commissioning Manager in making necessary arrangements for site familiarization for O&M staff. Prepare training material in accordance with CP-5 standard.

7.3.4 Commissioning Phase

Submit a list of the technical staff required to conduct all performance and verification tests for approval by the Commissioning Manager prior to beginning testing and verification.

- Manuals

Review the SOM until final (100%) and submit comments to the Commissioning Manager for approval. The manuals are to be in accordance with all modifications to the project.

- Spare Parts

Finalize requirements for delivery of all spare parts for all projects and assist Commissioning Manager in the definition of additional parts not listed in the Construction Documents.

- Performance Verification
  - Witness that the components, subsystems and systems are tested in accordance with the provisions of the Contract Documents and ensure all systems meet the design intent;
  - Witness all tests and PV procedures and certify same;
  - Provide solutions during the PV process with respect to variances from the design parameters;
  - In consultation with the Commissioning Manager, instruct the Contractor to correct all the deficiencies identified and recorded during the PV and adjust or alter the systems to achieve the design parameters; and
  - In consultation with the Commissioning Manager and Project Manager, recommend take-over of the facility subject to the completion of tests deferred because of outstanding deficiencies during the operational phase.
    i. Coordinate the training of O&M personnel and conduct training sessions.
    ii. Review all PMSS/MMS nomenclature, systems and submissions prepared by the Contractor. Ensure on-site implementation and tagging of PMSS/MMS.
    iii. Prior to the Interim Inspection, debrief the Project Manager and Commissioning Manager on the commissioning process, including training; problems; required changes

to systems (with costs) that are outside the Contractor's responsibility, but deemed necessary to meet project requirements; commissioning procedures and other information; and experiences and suggestions for future projects.

iv. Submit a report to the Commissioning Manager. Repeat this process when 80% occupancy is achieved.

Note that start-up and testing, adjustment and balancing are activities related to construction and are not part of the commissioning phase.

7.3.5 Post-Construction (Operation)

- Make recommended revisions to documentation to reflect all changes, modifications, revisions and adjustments as finally set upon completion of commissioning.
  - Develop an occupant's comments/complaints audit system;
  - Witness completion of PV and review reports;
  - Monitor environmental and life safety system checks, which must be carried out by the Contractor or O&M staff prior to the expiration of warranties; and
  - Identify and monitor all deficiencies to be rectified by the Contractor prior to the expiration of warranties.

7.4 Standards

Operating & Maintenance Manuals

The content and organization of the manuals shall be in accordance with CP.4: Operating & Maintenance Manuals. (The document is available from PWGSC.)

Training of O&M Personnel

The requirements and delivery of the training of O&M personnel shall be in accordance with CP.5: Training of O&M Personnel.

Performance Verification Procedures

The extent of PV procedures shall be in accordance with PWGSC generic manuals, i.e., CP.10 Performance Verification Report Forms and CP.10 Performance Verification Procedures.

PWGSC Preventive Maintenance Support System (PMSS) standards 6.17, to be known in future as Maintenance Management System (MMS).

Consultant to utilize PWGSC “PMSS” or “MMS” standard maintenance package and equipment identification nomenclature.

RS 8 RISK MANAGEMENT

8.1 Purpose

The Consultant shall help the Project Manager identify risks throughout the project. See "Doing Business – Quebec Region" for risk management "Definitions" and "Checklist."

8.2 General

Scope of Work

Risk Management Process

- Identify risk events based on past experience and using proposed checklist or other available lists;
- Qualify/quantify probability of risk events (low, moderate, high) and their impact (low, moderate, high);
- Prioritize risk events (i.e., concentrate efforts on risk events with high probability and moderate to high impact);
- Develop risk response (i.e., evaluate risk mitigation alternatives, which is the real added value of risk management); and
- Implement risk mitigation measures.

RS 9 ENVIRONMENT

Sustainable development is among the Canadian government's concerns and PWGSC translates this by incorporating environmental best practices into every project phase.

9.1. Objectives

- Comply with the relevant aspects of environmental legislation, including, but not limited to:
    - Storage Tank Systems for Petroleum Products and Allied Petroleum Products Regulations http://laws-lois.justice.gc.ca/eng/regulations/SOR-2008-197/FullText.html; and
    - Federal Halocarbon Regulations http://laws-lois.justice.gc.ca/eng/regulations/SOR-2003-289/;
- The spirit of the Federal Sustainable Development Strategy (FSDS) http://www.ec.gc.ca/dd-sd/default.asp?lang=En&n=A22718BA-1;
- The spirit of the Departmental (PWGSC) SDS http://www.tpsgc-pwgsc.gc.ca/rapports-reports/rpp/2015-2016/smdd-dsds-fra.html;
- Obtain a Gold-level LEED NC certification; and
- Achieve the environmental objectives of the most recent version of the Real Property Sustainability Framework.

9.2 Details

Environmental aspects:

- The Consultant has been provided with a PWGSC report on environmental aspects that must be taken into account during the project; and
- The Consultant shall not be limited to the report and shall identify other environmental aspects to assess.

9.2.1 Sustainable Development

The Treasury Board Policy on Management of Real Property requires real property to be managed in an environmentally responsible manner consistent with the principles of sustainable development. As one of the largest landlords in the country and given the major impact buildings have on the environment, the federal government is working to reduce the environmental impact of its operations related to real property.

9.2.3 Construction

The choice of construction materials, equipment and methods shall support Gold-level LEED NC certification.

9.2.4 Demolition

A CRD Waste Management Plan shall be established pursuant to the requirements of section 01 74 21 of the most recent version of the Canadian National Master Construction Specification. The plan includes preliminary list of materials for disposal as well as the available locations for their disposal under the 4Rs principle. The methods shall also be in accordance with the requirements of the Gold-level LEED NC standard.

9.2.5 Hazardous Materials

PWGSC Environmental Services has mandated a firm to conduct a survey of asbestos-containing materials (ACM) and the Consultant shall adapt the Construction Documents based on the results.

9.2.6 Halocarbons

Work on systems that operate with halocarbons shall be conducted in accordance with federal regulations. The Consultant will be provided with a summary of the requirements as well as all the forms to be used during construction work.

9.3 References

- The most recent Gold-level LEED NC standard.
- March 2013 or later version of the NMS.

RS 10 ESTIMATING AND COST PLANNING

10.1 Cost Specialist Consultant

Delivering this project on time and within budget is an absolute priority. A fully qualified cost estimating, Cost Planning and cost control team, referred to herein as the Cost Specialist Consultant, with a demonstrated record of successful cost management on major construction projects is required. This Cost Specialist Consultant will be conversant with all aspects of construction cost estimating during the design stages including the use of Elemental Cost Analysis, Risk Analysis, Life Cycle Costing and Value Engineering/Management techniques.

The purpose of Cost Planning and cost control is to assist in the accomplishment of project cost objectives. It is a continuous and interactive process involving planning, action, measurement, evaluation and revision.

10.2 Scope of Services

The Cost Specialist Consultant shall provide an interactive and continuous cost consulting service from the commencement of project design through to construction completion, including the preparation of complete estimates for all construction trades, escalation, inflation and contingency costs.

The Cost Specialist Consultant shall provide to the Departmental Representative and the Consultant, a cost advising and cost monitoring/reporting service.

The Cost Specialist Consultant is to be available for, and attend, all project meetings. It shall be ready to submit estimates to the Departmental Representative and to justify them, as necessary.

10.3 Services – Basic Activities

The Cost Specialist Consultant shall cooperate with the Consultant and its team and the Departmental Representative on the cost of components for the building and the various facilities. Estimates shall be presented in Uniformat II, be detailed and include cost summaries.

10.3.1 Reporting

Progress Reports

At each phase specified in this document, the Cost Specialist Consultant shall present a full account, which must include the requisite summaries as well as all supporting worksheets clearly showing the process used to prepare estimates. The Departmental Representative will essentially use the worksheets and the information these contain in examining the estimates. Worksheets must also include cost comparisons and cost reports identifying the differences between successive estimates, the reasons for these gaps, and their effects on project costs.

Moreover, the Cost Specialist Consultant shall coordinate all estimates with the Project Schedules.

A typical Progress Report will contain:

- Summary of project Cost Estimates;
- Elemental Cost Estimate Summary;
- Details supporting estimates:
    - Basic data used to calculate cost escalation, inflation and contingency costs; and
    - Detailed measurement and pricing;
- Narrative:
    - Outline description of estimate basis;
    - Description of information used in the estimates, including the date received;
    - List of elements included;
    - List of elements excluded;
    - List of high-risk items/aspects; and
    - Notes on Cost Specialist Consultant's past and planned activities; and
- Estimate reconciliation:
    - With last submission; and
    - With Construction Cost Plan.

Any other pertinent information should be included.

Monthly Reports

In addition to the Progress Reports, the Cost Specialist Consultant shall produce Monthly Reports on the status of the last month's activities, sensitive aspects, new data, forecasts and proposed revisions to current estimates. The report shall contain, in particular, the updated Elemental Cost Summary:

- Summary of project Cost Estimates;
- Elemental Cost Summary; and
- Narrative:
    - Description of the basic elements of the estimate revision;
    - Description of the new data included in the estimate and indication of their date of receipt;
    - List of elements included;
    - List of elements excluded;
    - List of high-risk items/aspects; and
    - Notes on Cost Specialist Consultant's past and planned activities.

Variance Report

The Cost Specialist Consultant shall provide continuous cost monitoring, timely identification and early warning of all changes that affect or potentially affect the estimated construction costs of the project.

If the estimate falls short of or exceeds the Construction Cost Plan due to such changes, the Cost Specialist Consultant with the Consultant team shall fully advise the Departmental Representative. The Cost Specialist Consultant with the Consultant team shall submit to the Departmental Representative proposed alternative design solutions. Thereafter, the most recent estimates shall be revised.

A Variance Report will include sufficient description and cost detail to clearly identify, among other information:

- Scope Change: Identifying the nature, reason and total cost impact of all identified and potential project scope changes affecting Construction Cost Estimate.
- Cost overruns and underruns: Identifying the nature, the reason and the total cost impact of all identified and potential cost variations.
- Options enabling a return to the Construction Cost Estimate: Identifying the nature and potential cost effects of all identified options proposed, in order to return the project within the Construction Cost Estimate.

10.3.2 Submission Requirements

Summary Format

- Elemental Cost Analysis: All estimates shall be summarized in an agreed and consistent Elemental format. The Consultant and the Cost Specialist Consultant shall use Uniformat II.
- Trade Summary: Where a Trade Summary is required, those following the Masterformat are preferred, except where local practice provides a more suitable alternative.
- Project Cost Breakdown: The estimate shall isolate the costs of each phase of construction. The anticipated costs for each phase shall be broken down.

Timeframe

Estimates associated with the Progress Reports shall follow the submission of the Consultant's documents within five (5) working days.

Use of Available Information

The Cost Specialist Consultant shall provide complete estimates even if the available information is incomplete at the schematic design and design development phases and when preparation of the Construction Drawings commences. In such cases, the Cost Specialist Consultant shall make assumptions and, after verifying them with the Consultant, shall either submit them as is or incorporate them into an outline specification that the Consultant will modify, as necessary. The assumptions used shall be identified in the reports by the Cost Specialist Consultant.

10.3.3 Techniques

The Cost Specialist Consultant shall be familiar with a wide range of techniques, especially the following:

1. Risk Analysis

All construction estimates (except the final Pre-Tender Estimate) shall include and identify design, estimating, inflation escalation and currency exchange allowances as are deemed necessary in light of the current information available. The Cost Specialist Consultant shall provide the necessary justification for the level and/or amount of these allowances for each estimate.

2. Scheduling

The Cost Specialist Consultant shall provide the Consultants and the Specialist Consultants with the quantitative information, information on the building systems and other quantifiable parameters deemed appropriate for establishing a justified Project Schedule. The Consultant shall assist the Cost Specialist Consultant by keeping the schedule of all design activities up to date as well as by updating the call tender and construction schedules that the Cost Specialist Consultant will include in the estimates in a timely manner.

3. Life Cycle Costing

In advising the Consultant of the cost information for alternative materials, methods and systems, the Cost Specialist Consultant shall use all available information to ensure that a complete cost picture is made available, upon which design and construction decisions will be made.

4. Continuing Estimate Process

The Cost Specialist Consultant may apply a process of continual adjustments of previous estimates in place of total remeasurement at each milestone reporting point. If the Cost Specialist Consultant chooses this approach, it shall nevertheless submit, for each phase, a complete and current Elemental Cost Summary including a separate, complete and detailed supporting file, as described earlier.

5. Project Research

The Cost Specialist Consultant shall obtain the necessary information from the Consultant in order to become familiar with the condition, accesses, etc., of the proposed and alternative construction sites. For the purpose of determining price levels, it shall also analyze the local context in terms of labour and procurement, as well is the call tender methods and the competition.

ADDITIONAL SERVICES

The Additional Services task list is non-exhaustive and in no way limits the professional obligations of the Consultant, its Sub-Consultants and its Specialist Consultants to perform the required tasks for the purpose of fulfilling the mandate of the project.

AS 1 BILINGUAL CONSTRUCTION DOCUMENTS

Construction Documents shall be submitted in both official languages as required.

Official languages requirements:

- The Consultant shall prepare all Construction Documents in Canada's two official languages;
- Both official languages are considered to be on an equal footing and neither shall be considered a translation of the other;
- The Consultant is responsible for the accuracy and comprehensiveness of the texts, as well as consistency within documents; and
- It is standard practice to produce a single set of drawings (originals) on which written information is shown in both languages, and separate written documents for each language for tendering, records drawings, and operating and maintenance documentation.

AS 2 GOLD-LEVEL LEED NC CERTIFICATION

2.1 Description of Services

- The Consultant is part of the Project Team from the commencement of work and throughout the project;
- Fill out the necessary documents and support the Departmental Representative in registering the projects for the purpose of Gold-level LEED NC certification;
- Once the work begins, coordinate with the Consultant to complete the LEED NC Checklist and determine which credits to target for Gold-level certification;
- Identify the Innovation credits to target, where necessary;
- Collaborate with the Consultant and save the necessary documentation in the file;
- Make recommendations to the Departmental Representative regarding the credits to target, favouring measures with the quickest return on investment, or payback period;
- Cooperate with the Commissioning Specialist and obtain the EA 2 Enhanced Commissioning credit; and
- Prepare and submit LEED NC certification applications and obtain a Gold-level certification.

AS 3 ENHANCED SITE SUPERVISION SERVICES

3.1 Description of Services

The purpose of the continuous site inspection services is to ensure the presence of a full-time representative of the Consultant on site to coordinate inspection and testing with other consultants as well as to inspect and monitor all aspects of the work during construction of the facilities, and liaise with the Contractor, PWGSC and other agencies as appropriate to the work. More than one person may be required to suit the hours of construction.

The Consultant's Site Representative is responsible for providing full-time (including overtime) inspection for all aspects of the project and maintaining daily records of all construction work in progress. The Site Representative is to ensure constant communication among the PWGSC Property Manager, the Project Manager, design agencies, the Contractor, the Regional Fire Commissioner and the Provincial Department of Labour.

The Site Representative shall report directly to the Consultant.

The Site Representative shall become thoroughly familiar with the Contract Documents, the National Building Code and all Fire Commissioner of Canada Standards for Construction Operations (incl. FC No. 301 dated June 1982 and the Standard for Welding and Cutting FC No. 302 dated June 1982). He or she shall also be aware of all provincial and municipal standards for the health and safety of construction workers.

The Site Representative shall become thoroughly familiar with the requirements of the Consultant's Project Brief and project responsibilities of others relating to his or her services.

NOTE: In coordination with PWGSC, the Consultant shall plan for optimal use of these hours, based on site requirements. PWGSC may terminate these continuous site inspection services at any time.

The Consultant shall submit the name and the resume of the person who will be performing site supervision for PWGSC approval.

3.2 Specific Duties and Responsibilities

The Site Representative provides full-time resident inspection, coordination and monitoring services during the construction work and reports on same to the Consultant. In addition, the Departmental Representative may delegate additional responsibilities subject to the Consultant's agreement.

The Site Representative shall maintain daily records of all construction work placed and ensure constant communication with the Consultant, the Sub-Consultants and the Specialist Consultants, the Project Manager, the Contractor, and the Departmental Representative.

The Site Representative shall coordinate the activities of and provide any necessary instructions to an assistant (where necessary) approved by PWGSC.

In case of emergency, the Consultant's Site Representative is empowered to stop the work, or give orders to protect the safety of the workers or Crown property.

3.3 Inspection and Reporting

The Consultant's Site Representative shall inspect all phases of the work in progress, for the purpose of bringing to the attention of the Contractor, after checking with the Consultant and the Departmental Representative, any discrepancies between the work, the Contract Documents and accepted construction procedures. The Site Representative shall keep a daily log of such inspections and issue a weekly written report to the Consultant, for distribution purposes, in the form directed. The Site Representative shall make any other reports or surveys as may be requested by the Project Manager through the Consultant.

3.4 Interpretation of the Contract Documents

Interpretation of the Contract Documents shall be the responsibility of the Consultant. The Consultant may, however, have the Site Representative provide it with information regarding job conditions and may require him or her to relay day-to-day instructions to the Contractor.

It shall be the duty of the Site Representative to assist the Consultant and further inform the Consultant of any anticipated problems that may delay the progress of the work. The method of relaying such information shall be determined by the Consultant.

3.5 Changes in the Work

The Site Representative shall not authorize or order any change in the work that will constitute a change in design or in the value of the Contract except as delegated by the Departmental Representative.

The Consultant may call upon the Site Representative to assist in the evaluation of changes in the work, where a knowledge of job conditions is required.

3.6 Communication and Liaison

The Site Representative shall:

1. Convey the Consultant's instructions regarding the required standards of workmanship to the Contractors;
2. Identify poor workmanship or work that does not adhere to the drawings and specifications, confer with the Consultant about these findings and obtain the Consultant's guidance. The matter is then to be brought to the attention of the Contractor's Superintendent. Although informal discussions with sub-trade superintendents are usually permissible (but only with the agreement of the Contractor), the Site Representative should not deal directly with foremen or tradespeople, or interfere with the progress of the work;
3. Communicate formally with the Contractor, via memorandum form only. When this form is issued, the Site Representative must immediately file copies with PWGSC and the Consultant;
4. Contact the Consultant immediately when it is apparent that information or action is required of the Consultant, e.g., general instructions, clarifications, sample of shop drawing approvals, requisitions, contemplated change orders, site instructions, details, drawings;
5. Accompany PWGSC representatives on inspections and report requirements, comments or instructions from PWGSC staff to the Consultant. Note that the Site Representative should encourage the provision of such requirements, comments or instructions in writing;
6. Consider and evaluate any suggestions or modifications to the documents advanced by the Contractor and immediately report these to the Consultant with comments;
7. Ensure that PWGSC and the Consultant are notified promptly when key pieces and/or components of materials and equipment are delivered, so that these parties can arrange for the appropriate personnel to have an opportunity to inspect same prior to installation;
8. The Site Representative shall investigate, schedule and approve in writing all temporary or permanent connections into any of the buildings' systems prior to the work being done; and
9. The Site Representative shall provide advanced forecasts and advise the PWGSC Property Manager of any interruption of normal building services with a minimum of twenty-four (24) hours' notice prior to the work being undertaken, where this work cannot be done during silent hours.

3.7 Daily Log

The Site Representative shall keep a daily log recording, in particular:

1. Weather conditions, particularly unusual weather relative to construction activities in progress;
2. Major material and equipment deliveries;
3. Daily activities and major work done;
4. Start, stop or completion of activities;
5. Presence of inspection and testing firm employees, tests taken, results, etc.;
6. Unusual site conditions experienced;
7. Significant developments, remarks, etc.;
8. Special visitors on site;
9. Authorities given to the Contractor to undertake certain work or hazardous work;
10. Environmental incidents; and
11. Reports and instructions from appropriate authorities regarding emergency response actions.

Note: The log is the personal property of the Site Representative. Copies of the logbook, certified as copies, are to be provided to the Departmental Representative and the Consultant at the end of the project.

3.8 Weekly Records

The Site Representative shall prepare weekly reports for the Consultant in the form directed, in particular:

1. Progress of work relative to schedule;
2. Major activities commencing or completed during the week; main activities in progress;
3. Major deliveries of materials and/or equipment;
4. Difficulties which may cause delays in completion;
5. Materials and labour required immediately;
6. Cost estimates for work completed and materials delivered (cost plus contracts);
7. Outstanding information or action required by the Consultant or PWGSC;
8. Labour;
9. Weather;
10. Remarks;
11. Accidents on site; and
12. Life safety or building hazards caused by the work, the Contractor or its agents.

3.9 Site Records

The Site Representative shall maintain orderly and updated files at the site for the use of PWGSC, the Consultant and himself or herself, including the following:

1. Contract Documents and tender documents;
2. Approved shop drawings;
3. Approved samples;
4. Samples;
5. Site instructions;
6. Contemplated change notices;
7. Change orders;
8. Memoranda;
9. Test and deficiency reports;
10. Correspondence and minutes of meetings; and

11. Names, addresses and phone numbers of the representatives of the Client, the Consultant and all Contractors and of sub-trades key personnel associated with the Contract; including home telephone numbers in case of emergency.

In addition, the Site Representative shall maintain an updated progress schedule. A reproduction of the original contract drawings shall be carefully preserved and shall be kept up to date with all memoranda, change orders, site instructions, details, as-built conditions, etc., issued subsequent to the award of the Contract.

3.10 Inspection of the Work

The Site Representative shall make on-site observations and spot checks of the work to determine whether the work, material and equipment conform to the Contract Documents and supplementary conditions. The Site Representative shall advise the Contractor of any deficiencies or unapproved deviations via memorandum and report immediately to the Consultant and Departmental Representative any of these where the Contractor is being slow to or refuses to correct.

The Site Representative shall arrange for the Consultant's architectural, structural, mechanical engineering, electrical engineering and other Sub-Consultants to make the periodic inspections required by the Contract entered into with the Consultant, and for these inspections to be made in a timely manner with respect to the progress of the work.

The Site Representative shall also report if material and equipment are being incorporated into the project prior to approval of related shop drawings or samples.

The Site Representative shall assist in the preparation of all deficiency reports, interim, preliminary and final, in collaboration with the Department's and the Consultant's representatives.

The Site Representative shall be responsible for the measurement of all work to be done on a unit cost basis.

3.11 Site Meetings

The Site Representative shall attend all site meetings.

3.12 Inspection and Testing

The Site Representative shall see that the tests and inspections required by the Contract Documents are conducted, observe these tests and report the results in the daily log.

The Consultant must be notified if the test results do not meet the specified requirements, or if the Contractor does not have tests undertaken as required.

3.13 Emergencies

In the case of an emergency where safety of persons or property is concerned, or work is endangered by the actions of the Contractor, to safeguard the interests of PWGSC, the Site Representative shall give immediate written notice to the Contractor of the possible hazard. He or she shall further, if necessary, stop the work or give orders for remedial work, and contact the Consultant immediately for further instruction.

3.14 Limitations

The Site Representative shall not, in particular:

1. Authorize deviations from the Contract Documents;
2. Conduct tests;
3. Approve shop drawings or samples;
4. Advise the Client in any matter without first obtaining guidance from the Consultant;
5. Accept any work or portions of the building;
6. Enter into the area of responsibility of the Contractor's Field Superintendent; or
7. Stop the work unless convinced that an emergency exists as noted above.

3.15 Hazardous Construction Operations

It is the duty of the Site Representative to examine all site conditions and methods to be used by the Contractor undertaking hazardous operations. The Site Representative shall give written authority to the Contractor to undertake hazardous operations when fully satisfied that all necessary precautions and acts have been taken by the Contractor to safeguard the life safety of the workers and building occupants and Crown property. This written authority shall be countersigned by the Contractor to acknowledge that the latter is aware of the Site Representative's instructions and requirements. Both parties will retain copies of the authority document signed mutually by them.

The Site Representative shall inspect the areas where hazardous work is under way to ensure that the Contractor is maintaining the agreed safety standards. Any infractions may result in the Site Representative stopping the work. All infractions or work stoppages ordered shall be reported in writing and verbally to the Consultant and the PWGSC Construction Supervisor.

3.16 Building Security

Special precautions must be taken at all times to prevent unauthorized entry of the building.

The Site Representative shall ensure that all Contractor-made openings and means of access are firmly secured when the Contractor leaves the site.

The Site Representative shall liaise closely with the Contractor and the Departmental Representative on all security and/or safety problems that may arise due to the Contractor's operations.

AS 4 Geotechnical and Environmental studies

4.1 Description of Services

PWGSC will provide geotechnical and environmental studies to the successful bidder. In the case there are needs for additional information or clarifications required by the Consultant and its sub-consultants, the Consultant needs to inform PWGSC as soon as possible in writing. Approval will be required from PSGSC prior to going forward with any additional services related to geotechnical and environmental services.

AS 5 Functional and technical Program & Project workbook

5.1 Description of Services

The Consultant has to prepare a Functional and technical Program (FTP) and revised Data sheets in parallel with the required services RS1 to RS10 as well as AS1 to AS4, which can be of use to CBSA for future projects in Canada. The preparation of the FTP and the Data sheets cannot delay the progress of the required services and the additional services mentioned above.

Furthermore, the Consultant will have to prepare a Project Workbook which will assemble the main documents related to the project. It will be transmitted to CBSA and PWGSC at the end of the project. The identification of the documents which must be assembled in this Workbook will be discussed during the start-up meetings with the project team which includes the Consultant, PWGSC and CBSA.

APPENDICES

APPENDIX 1.1 PRELIMINARY TECHNICAL SHEETS

APPENDIX 1.2 STATEMENT OF WORK

APPENDIX 1.3 LAVAL SCHEMATIC DESIGN REPORT

APPENDIX 1.4 LIST OF DRAWINGS TO BE RECEIVED AFTER CONTRACT AWARD

APPENDIX 1.5 FORMS – FEES

1 Verification Process for Estimated Hours and Worked Hours per Phase

2 Responsibility Matrix and Comprehensive Work Plan

3 Weekly Work Plan and Estimated Hours

4 Timesheets

5 Work Plan and Worked Hours