



RETURN BIDS TO:
RETOURNER LES SOUMISSIONS À:
Bid Receiving - PWGSC / Réception des
soumissions - TPSGC
11 Laurier St. / 11 rue Laurier
Place du Portage, Phase III
Core 0A1/Noyau 0A1
Gatineau, Québec K1A 0S5
Bid Fax: (819) 997-9776

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

THIS DOCUMENT CONTAINS A SECURITY REQUIREMENT
CE DOCUMENT COMPORTE DES EXIGENCES RELATIVES À LA SÉCURITÉ

Title - Sujet GCC Environmental Consultant	
Solicitation No. - N° de l'invitation EP760-140545/A	Date 2013-11-15
Client Reference No. - N° de référence du client 20140545	
GETS Reference No. - N° de référence de SEAG PW-\$\$FE-175-63903	
File No. - N° de dossier fe175.EP760-140545	CCC No./N° CCC - FMS No./N° VME
Solicitation Closes - L'invitation prend fin at - à 02:00 PM on - le 2014-01-03	
Time Zone Fuseau horaire Eastern Standard Time EST	
F.O.B. - F.A.B. Plant-Usine: <input type="checkbox"/> Destination: <input type="checkbox"/> Other-Autre: <input type="checkbox"/>	
Address Enquiries to: - Adresser toutes questions à: Lohnes, Melissa	Buyer Id - Id de l'acheteur fe175
Telephone No. - N° de téléphone (819) 956-6097 ()	FAX No. - N° de FAX (819) 956-3160
Destination - of Goods, Services, and Construction: Destination - des biens, services et construction: Government Conference Centre (GCC) 2 Rideau Street Ottawa, Ontario	

Instructions: See Herein

Instructions: Voir aux présentes

Vendor/Firm Name and Address

Raison sociale et adresse du fournisseur/de l'entrepreneur

Issuing Office - Bureau de distribution

Consultant Services Division/Division des services d'experts-conseils
11 Laurier St./11 Rue Laurier
3C2, Place du Portage
Phase III
Gatineau, Québec K1A 0S5

Delivery Required - Livraison exigée See Herein	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

**THIS PROCUREMENT CONTAINS A SECURITY REQUIREMENT
REQUEST FOR PROPOSAL (RFP)**

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Description of Project (PD)

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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 nature of the requirement and the anticipated limited number of responses by the industry leads PWGSC to believe that this approach will not unduly force a large number of firms to expend an overall unreasonable amount of effort in response to PWGSC.
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 (2013-06-27), General Instructions to Proponents (GI);
Submission Requirements and Evaluation (SRE);
 - (b) the general terms, conditions and clauses, as amended, identified in the Agreement clause;
 - (c) Project Brief / Terms of Reference;

-
- (d) the document entitled "Doing Business with National Capital Area";
 - (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. Code of Conduct and Certifications - Related Documentation

By submitting a proposal, the Proponent certifies that the Proponent and its affiliates are in compliance with the provisions as stated in Section GI1 Code of Conduct and Certifications - Proposal of R1410T (2013-06-27) General Instructions to Proponents (GI). The related documentation therein required will assist Canada in confirming that the certifications are true.

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://hrsdc.gc.ca/eng/labour/index.shtml>) available from Human Resources and Skills Development Canada (HRSDC) -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, when the Agreement is valued at \$1,000,000 and above, applicable Taxes included.

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.

-
2. For additional information on security requirements, proponents should consult the "Security Requirements for PWGSC Bid Solicitations - Instructions for Bidders" (<http://www.tpsgc-pwgsc.gc.ca/app-acq/lc-pl/lc-pl-eng.html#a31>) document on the Departmental Standard Procurement Documents 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.justice.gc.ca/en/E-5.401/index.html>

Federal Contractors Program (FCP)

<http://www.hrsdc.gc.ca/eng/labour/equality/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>

Code of Conduct for Procurement

<http://www.tpsgc-pwgsc.gc.ca/app-acq/cndt-cndct/contexte-context-eng.html>

Consent to a Criminal Record Verification (PWGSC-TPSGC 229 form)

<http://www.tpsgc-pwgsc.gc.ca/app-acq/forms/formulaires-forms-eng.html>

Lobbying Act

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

Contracts Canada

<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 (2013-06-27), General Condition (GC) 1 - General Provisions
 - R1215D (2011-05-16), General Condition (GC) 2 - Administration of the Contract
 - R1220D (2011-05-16), General Condition (GC) 3 - Consultant Services
 - R1225D (2012-07-16), General Condition (GC) 4 - Intellectual Property
 - R1230D (2012-07-16), General Condition (GC) 5 - Terms of Payment
 - 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 (2012-07-16), General Condition (GC) 8 - Dispute Resolution
 - R1250D (2012-07-16), General Condition (GC) 9 - Indemnification and Insurance
 - Supplementary Conditions
 - Agreement Particulars
 - (c) Project Brief / Terms of Reference;
 - (d) the document entitled "Doing Business with National Capital Area";
 - (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.

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) Project Brief / Terms of Reference;
 - (h) the document entitled "Doing Business with National Capital Area";
 - (i) the document entitled "Security Requirement Check List";
 - (j) the proposal.

SUPPLEMENTARY CONDITIONS (SC)

SC1 SECURITY REQUIREMENT

1. The following security requirement (SRCL and related clauses) applies and form part of the Agreement.
- i. The Consultant must, at all times during the performance of the Contract, hold a valid Designated Organization Screening (DOS), issued by the Canadian Industrial Security Directorate (CISD), Public Works and Government Services Canada (PWGSC).
 - ii. The Consultant personnel requiring access to sensitive work site(s) must EACH hold a valid RELIABILITY STATUS, granted or approved by CISD/PWGSC.
 - iii. Subcontracts which contain security requirements are NOT to be awarded without the prior written permission of CISD/PWGSC.
 - iv. The Consultant must comply with the provisions of the:
 - (a) Security Requirements Check List and security guide (if applicable), attached at Appendix E;
 - (b) Industrial Security Manual (Latest Edition).

SC2 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) 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.

SC3 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 HRSDC-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 HRSDC 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 and will identify the fee to be paid to the Consultant for the services determined in the Price Proposal Form.

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APPENDIX 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 - Environmental Engineer):

Firm or Joint Venture Name:

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

.....
.....
.....
.....
.....

II. Key Sub Consultants / Specialists:

Certified Industrial Hygienist

Firm Name:

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

.....
.....
.....
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.....

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Solid Waste Management Specialist

Firm Name:
.....
.....

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

.....
.....
.....
.....
.....

Geotechnical Engineer

Firm Name:
.....
.....

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

.....
.....
.....
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.....

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APPENDIX B - DECLARATION/CERTIFICATIONS FORM

Project Title:

Name of Proponent:

Street Address:

Mailing Address:

Telephone Number:()

Fax Number: ()

E-Mail:

Procurement Business Number:

Type of Organization:	Size of Organization:
<input type="checkbox"/> Sole Proprietorship	Number of Employees _____
<input type="checkbox"/> Partnership	Graduate Architects / Professional Engineers _____
<input type="checkbox"/> Corporation	Other Professionals _____
<input type="checkbox"/> Joint Venture	Technical Support _____
	Other _____

APPENDIX 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 such request by Canada will also render the proposal non-responsive or will constitute a default under the contract.

For further information on the Federal Contractors Program for Employment Equity visit HRSDC-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 employees (combined work force includes: permanent full-time, permanent part-time and temporary employees [temporary employees only includes those who have worked 12 weeks or more during a calendar year and who are not full-time students]).

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

APPENDIX 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 HRSDC-Labour.

OR

- A5.2. The Proponent certifies having submitted the Agreement to Implement Employment Equity (LAB1168) to HRSDC-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 HRSDC-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 to Proponents)

APPENDIX 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 with FPS, proponents must provide the information required below before contract award.

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.

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 ()

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

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.

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APPENDIX 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: _____

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This Appendix "B" should be completed and submitted with the proposal, but may be submitted afterwards as follows: if Appendix "B" is not completed and submitted with the proposal, the Contracting Authority will so inform the Proponent and provide the Proponent with a time frame within which to meet the requirement. Failure to comply with the request of the Contracting Authority and meet the requirement within that time period will render the proposal non-responsive.

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APPENDIX C - PRICE PROPOSAL FORM

INSTRUCTIONS: Complete this Price Proposal Form and submit in a **separate sealed envelope** with the Name of Proponent, Name of Project, PWGSC Solicitation Number, and the words "PRICE PROPOSAL FORM" typed on the outside of the envelope. Price Proposals are not to include Applicable Taxes.

PROPOSERS SHALL NOT ALTER THIS FORM.

Name of Bidder:

The following will form part of the evaluation process:

1. REQUIRED SERVICES – FIXED FEE

Including all related costs, services and deliverables to complete the services as specified in the Project Brief and in the RFP documents.

ITEM	DESCRIPTION	FIXED FEE
RS1	Review of Schematic Design	\$ _____
RS2	Design Development	\$ _____
RS3	Construction Documents	\$ _____
RS4	Tender Call & Contract Award	\$ _____
TOTAL FIXED FEE (RS1+RS2+RS3+RS4):		\$ _____ (1)

2. REQUIRED SERVICES – TIME BASED FEE
(R1230D (2012-07-16), GC5 - Terms of Payment)

RS5 – CONSTRUCTION AND CONTRACT ADMINISTRATION	ESTIMATED HOURS Column A	HOURLY RATES** Column B	TIME BASED FEE Columns AxB
Senior Environmental Engineer	200	\$ _____	\$ _____
Intermediate Environmental Engineer	700	\$ _____	\$ _____
Junior Environmental Engineer	500	\$ _____	\$ _____
Solid Waste Management Specialist	200	\$ _____	\$ _____
Administrative Support	500	\$ _____	\$ _____
RS 5 Total:			\$ _____

RS 6 – ENVIRONMENTAL MONITORING SERVICES	ESTIMATED HOURS Column A	HOURLY RATES** Column B	TIME BASED FEE Columns AxB
Senior Certified Industrial Hygienist	250	\$ _____	\$ _____
Intermediate Certified Industrial Hygienist	1250	\$ _____	\$ _____
Junior Certified Industrial Hygienist	750	\$ _____	\$ _____
Administrative Support	1000	\$ _____	\$ _____
RS 6 Total:			\$ _____

Solicitation No. - N° de l'invitation

EP760-140545/A

Amd. No. - N° de la modif.

Buyer ID - Id de l'acheteur

fe175

Client Ref. No. - N° de réf. du client

20140545

File No. - N° du dossier

fe175EP760-140545

CCC No./N° CCC - FMS No/ N° VME

RS 7 – GEOTECHNICAL ENGINEERING SERVICES	ESTIMATED HOURS Column A	HOURLY RATES** Column B	TIME BASED FEE Columns AxB
Senior Geotechnical Engineer	150	\$ _____	\$ _____
Intermediate Geotechnical Engineer	200	\$ _____	\$ _____
Junior Geotechnical Engineer	75	\$ _____	\$ _____
Administrative support	1,500	\$ _____	\$ _____
RS7 Total:			\$ _____

MAXIMUM TIME BASED FEES (RS5 + RS6 + RS7):	\$ _____ (2)
---	---------------------

Payment will be based on actual hours spent supported by validated timesheets.
Travel time and/or expenses will not be reimbursed separately.

** All inclusive hourly rate is applicable to both normal working hours and any other shift work as required.

3. TESTING DISBURSEMENTS – UNIT RATES FOR TESTING AND SUPPORT SERVICES

Unit rates for testing, as pre-approved by the Departmental Representative, and related support Services to be applied against quantities listed below.

Consultant must submit their firm all inclusive pricing/rates including the necessary testing equipment, overhead, profit, materials and all related costs for each test type or level of personnel.

#	Item	Unit Rate Column A	Quantity Column B	Total Column Ax B
1	PCM Asbestos air sample test	\$_____ / test	500	\$_____
2	PLM asbestos bulk sample test	\$_____ / test	50	\$_____
3	TEM sample test	\$_____ / test	30	\$_____
4	Total VOC monitoring test	\$_____ / test	30	\$_____
5	Lead air samples test	\$_____ / test	40	\$_____
6	Silica air sample test	\$_____ / test	40	\$_____
7	Coal Tar sample test	\$_____ / test	5	\$_____
8	Senior Professional	\$_____ / hr	550** hours	\$_____
9	Intermediate Professional	\$_____ / hr	1100** hours	\$_____
Total Testing Disbursements:				\$_____ (3)

Payment will be based on actual hours spent supported by validated timesheets. Travel time and/or expenses will not be reimbursed separately.

** All inclusive hourly rate is applicable to both normal working hours and any other shift work as required.

In case of error in the extension of prices, the unit price will govern. Canada may enter into contract without negotiation.

For the Contract related to this Request for Proposal, the following shall apply:
The following Required Services, or parts thereof as indicated, shall form the base Contract. Fees and disbursements shall be those established in the Fixed Fee (1), Time Based Fee (2) and Total Testing Disbursements (3) used for evaluation purposes, at the percent utilization indicated in the table below.

ITEM	PERCENT UTILIZATION	DESCRIPTION
RS1	100%	Review of Schematic Design
RS2	100%	Design Development
RS3	100%	Construction Documents
RS4	15%	Tender Call & Contract Award
RS5	15%	Construction and Contract Administration
RS 6	15%	Environmental Monitoring Services
RS 7	85%	Geotechnical Engineering Services
	15%	Total Testing Disbursements

OPTIONAL REQUIRED SERVICES, including all related costs, services and deliverables to complete the services specified in the Project Brief and in the RFP documents

The Consultant hereby grants to Canada an irrevocable option to acquire the services specified under sections RS4 through RS7 and the additional Testing Disbursements, as summarized in the table directly below, under the same terms and conditions as contained in the base Contract, and in accordance with the rates and fees identified in the unit rate tables used for evaluation purposes. Canada is not obliged to exercise this option. The option shall only be exercised by the Contracting Authority by providing notification in writing through a formal Contract Amendment.

ITEM	PERCENT UTILIZATION	DESCRIPTION
RS4	85%	Tender Call & Contract Award
RS5	85%	Construction and Contract Administration
RS 6	85%	Environmental Monitoring Services
RS 7	15%	Geotechnical Engineering Services
	85%	Total Testing Disbursements

Solicitation No. - N° de l'invitation
EP760-140545/A

Amd. No. - N° de la modif.

Buyer ID - Id de l'acheteur
fe175

Client Ref. No. - N° de réf. du client
20140545

File No. - N° du dossier
fe175EP760-140545

CCC No./N° CCC - FMS No/ N° VME

The following will NOT form part of the evaluation process

OTHER DISBURSEMENTS

An allowance in the amount of \$45,000 (HST excluded) will be incorporated into the contract to cover pre-authorized disbursements, at cost without allowance for mark-up or profit, supported by invoices/receipts - see clause R1230D (2012-07-16), GC 5 - Terms of Payment, section GC5.12

Reproduction and delivery costs of technical documentation in addition to that specified in the Project Brief with the prior approval and authorization of the Departmental Representative: \$ 10,000

Other Disbursements: \$ 35,000

MAXIMUM AMOUNT FOR OTHER DISBURSEMENTS \$ 45,000

Signature of Consultant

The Consultant agrees to provide ALL services requested in the Request For Proposal. If any proposal is submitted by a partnership or joint venture, then the information is required from each component entity.

.....
name signature

.....
title

I/We have authority to bind the Corporation / Partnership / Sole Proprietorship

.....
name signature

.....
title

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

END OF PRICE PROPOSAL FORM



Respect • Integrity • Excellence • Leadership

Serving
GOVERNMENT,
Serving
CANADIANS.

Doing Business with the National Capital Area (NCA)



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Appendix 'A'	Checklist for the Submission of Construction Documents
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Appendix 'E'	Basic Reference Guide on Converting Construction Drawings into Portable Document Format (PDF), dated May 2005

SECTION 1 INTRODUCTION

This document must be used in conjunction with the Terms of Reference (TOR), 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.

SECTION 2 PWGSC NATIONAL CADD STANDARD

Drawings shall be in accordance with PWGSC National CADD Standards and Canadian Standards Association (CSA) B78.3.

Refer to:

<http://www.tpsgc-pwgsc.gc.ca/biens-property/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.

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://sacc.pwgsc.gc.ca/sacc/query-e.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 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. 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.pwgsc.gc.ca/cgsb>
- ANSI standards: <http://www.ansi.org>
- ASTM Standards: <http://www.astm.org>
- ULC standards: <http://www.ulc.ca>
- General reference of standards: <http://www.cssinfo.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 [_____].

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 systems). **Substantiation and/or justification will be required.**

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 EMCS systems 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 can only be estimated (eg. earth work) and 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”.

Sample of Unit Price Table:

The Unit Price Table designates the Work to which a Unit Price Arrangement applies.

- (a) The Price per Unit and the Estimated Total Price must be entered for each Item listed.
- (b) Work included in each item is as described in the referenced specification section.

Item	Specification Reference	Class of Labour, Plant or Material	Unit of Measurement	Estimated Quantity	Price per Unit GST/HST extra	Estimated Total Price GST / HST extra
TOTAL ESTIMATED AMOUNT						
Transfer amount to subparagraph 1)(b) of BA03						

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 "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 A.

14 Regional Guide

The Consultant should contact the Project Manager to obtain the region's requirements for Division 01 or other short form specifications as might be appropriate. For example, it is required in the National Capital Region that regional Section 01 00 10 - General Instructions be used on all projects.

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.

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. 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.

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 and no any information that will 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: Number drawings in sets according to the type of drawing and the discipline involved as follows (The requirements of SECTION 2 PWGSC NATIONAL CADD STANDARD will supercede these requirements, where warranted).

During the Design Phase of the project each submission and review 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.

Discipline	Drawing
Demolition	D1, D2, etc.
Architectural	A1, A2, etc.
Civil	C1, C2, etc.
Landscaping	L1, L2, etc.
Mechanical	M1, M2, etc.
Electrical	E1, E2, etc.
Structural	S1, S2, etc.
Interior Design	ID1, ID2, etc.

- 8 Presentation Requirements:** Present drawings in sets comprising the applicable demolition, 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. Blue prints are acceptable for document submissions at 33%, 66% and 99% stages. 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 next to the plan sheets or at the back 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, stamped and signed.

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.

DOCUMENTATION

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.

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 is for bidding purposes only and do not require to be signed and sealed. See Appendix 'D' and Appendix 'E'.

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% 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% 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

1 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 its 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.

1.1 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.

1.2 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.

1.3 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 Baseline. 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.

1.4 Schedule Monitoring and Control

Once Baseline 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.

There 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.

1.5 Standard Submissions

At each submission 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);

1.6 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.

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

Last updated November 21, 2012

Date:	
Project Title:	Project Location:
Project Number:	Contract Number:
Consultant's Name:	PWGSC Project Manager:
Review Stage: 66% <input type="checkbox"/> 99% <input type="checkbox"/> 100% <input type="checkbox"/>	

Item	Verified by:	Comments:	Action by:
Specifications:			
1 National Master Specifications			
1a The current edition of the NMS has been used.			
1b Sections have been included for all work identified on drawings and sections edited.			
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.			

6 Specifications Materials			
6a The method of specifying materials uses recognized standards. Actual brand names and model numbers are not specified.			
6b Materials are specified using standards and performance criteria (if not, the correct form of acceptable materials has been used).			
6c Identify if non-restrictive, non-trade name “prescription” or “performance” specifications are used.			
6d Indicate if a list of acceptable materials have been used.			
6e The term “Acceptable Manufacturers” is not used.			
6f No sole sourcing has been used.			
6g If sole sourcing has been used, the correct wording has been used and a justification provided to RPCD for the sole sourced products.			
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 plans and specification sections with the correct number of pages and correct drawing titles and section names.			
14 Regional Guide Specifications			
14a General Instructions is included (Section 01 00 10 in the NCA).			

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.			
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 Architectural and Engineering Drawings have been stamped and signed by the design authority.			
6b The project quantity and configuration, dimensions and construction details are included.			
6c References to future work and elements not in contract do not appear or are kept to an absolute minimum and clearly marked.			

I confirm that the plans and specifications have been thoroughly reviewed and that the items listed above have been addressed or incorporated. I acknowledge and accept that by signing, I am certifying that all items noted above have been addressed.

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 00 10 - General Instructions

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

Last updated April 22, 2008

Project No: _____

Index
Page 1 of ____

DRAWINGS AND SPECIFICATIONS

DRAWINGS:

SPEC NOTE: List all Drawings by number and title.

- C-1 Civil
- L-1 Landscaping
- A-1 Architectural
- S-1 Structural
- M-1 Mechanical
- E-1 Electrical

SPECIFICATIONS:

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

<u>DIVISION</u>	<u>SECTION</u>	NO. OF PAGES
DIVISION 01	01 00 10 - General Instructions.....XX
	01 14 25 - Designated Substances Report.....XX
	01 35 30 - Health and Safety.....XX
DIVISION 23	23 xx xx	
DIVISION 26	26 xx xx	

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 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).

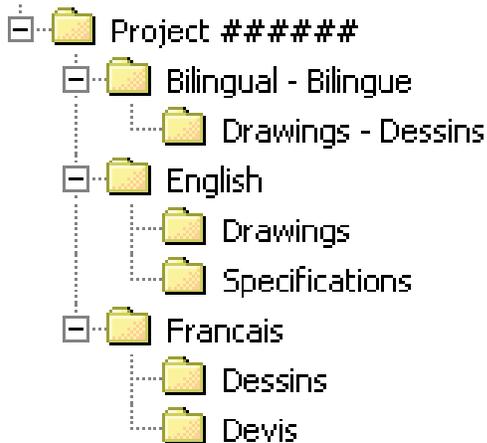
There is therefore a need to adopt a common directory structure and file-naming convention to ensure that the information made available to contractors electronically and in hard (printed) copy is in accordance with the sequence adopted in the real property industries, both for design and construction. 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 (1 st , 2 nd and 3 rd Tier folders) are always required and cannot be modified.

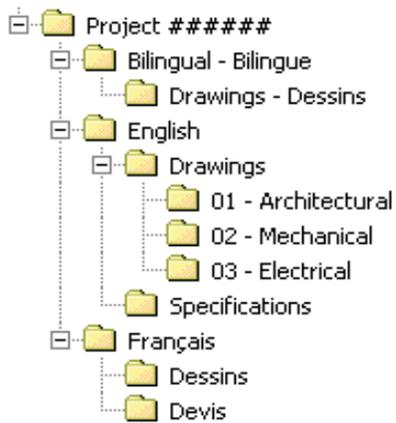
1.2 4th Tier Sub-Folders for Drawings

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

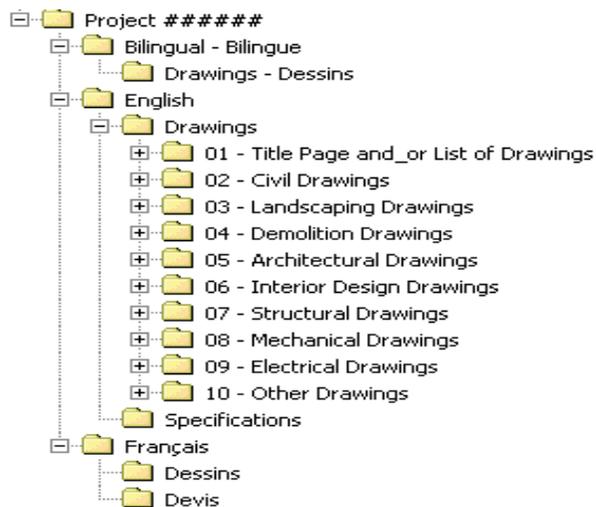
Because the order of appearance of the sub-folders on the screen will also determine the order of printing, it is necessary to start with a number the identification name of the sub-folders in the “Drawings – Dessins”, “Drawings” and “Dessins” folders.

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:

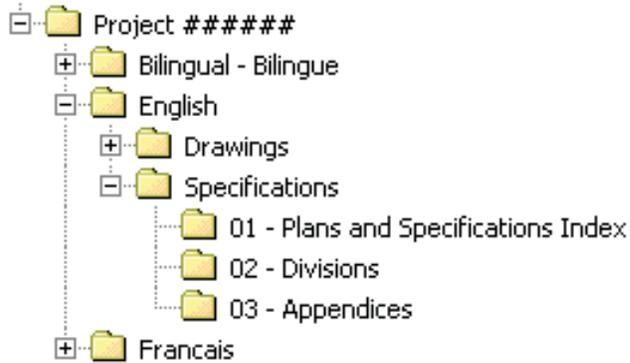
- The alphanumerical sorting is done on an ascending order;
- The alphanumerical order of the sub-folders determines the order of appearance on the screen as well as the order of printing (as an example: all the drawing PDF files in the 01 sub-folder will be printed in alphanumerical order before the 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

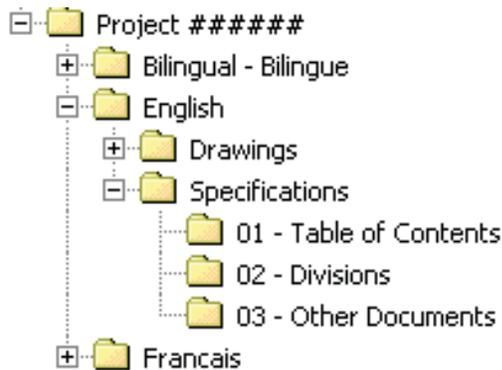
The “*Specifications*” and “*Devis*” folders must have 4th Tier sub-folders created to reflect the various elements of the specifications.

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:

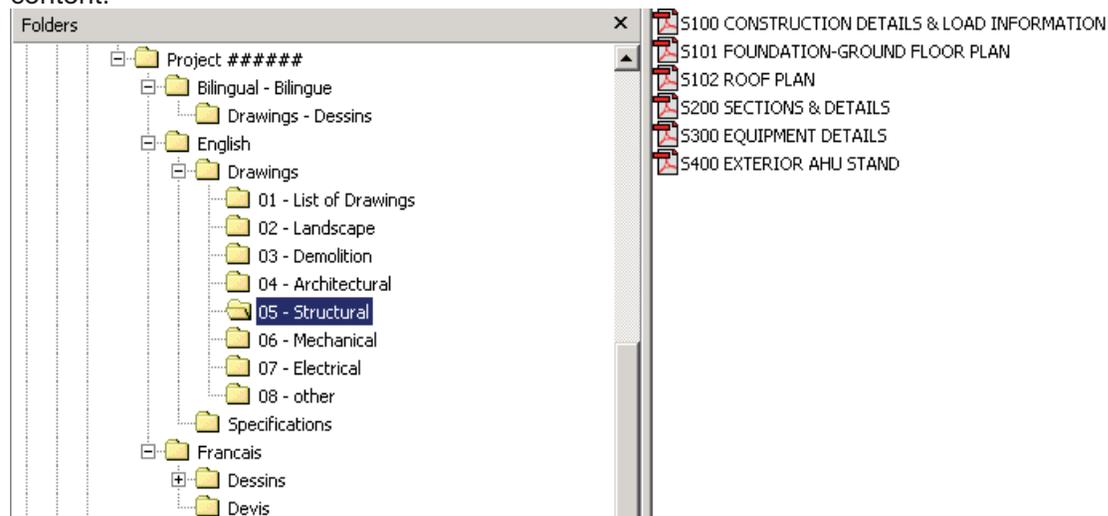
= A two digit number ranging from 01 to 99 (leading zeros must be included)

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:

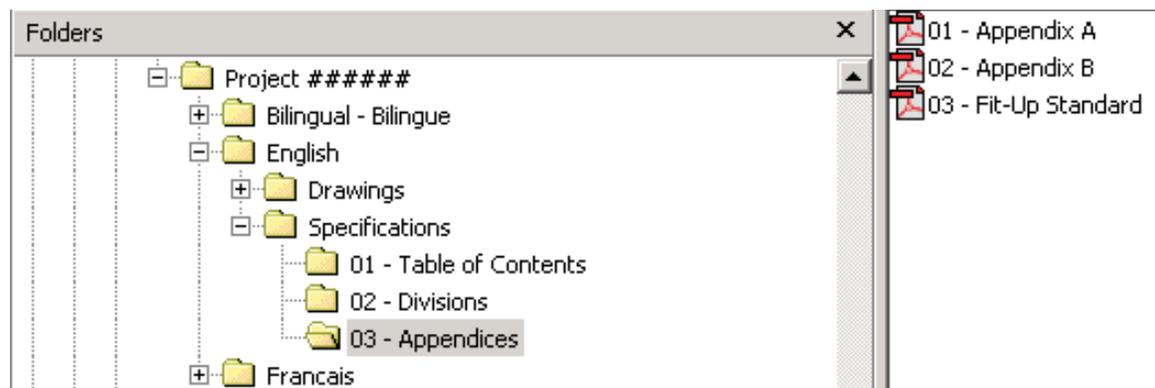
- Y

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)

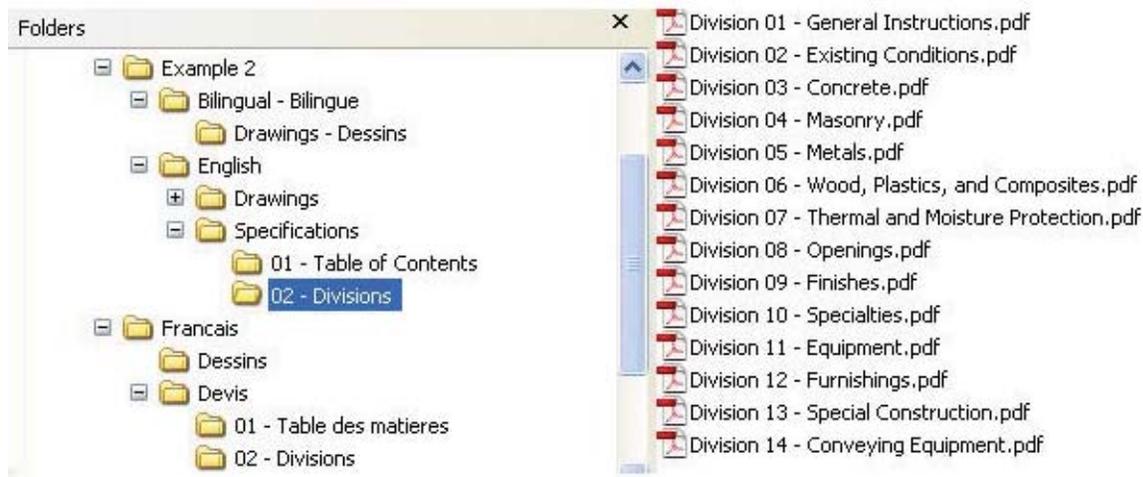
Y = Name of the Specifications Division as per **CSC/CSI MasterFormat™**

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

Issued by:

Real Property Contracting Directorate

PWGSC

May 2005 Last 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. 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. 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. 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. PDF FILES SETTINGS

4.1 Security

Adobe Acrobat contains security features that can be 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. 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. FINAL CHECKLIST

When the drawing file has gone through 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. 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.

APPENDIX E



Government of Canada / Gouvernement du Canada

Contract Number / Numéro du contrat EP760140545
Security Classification / Classification de sécurité UNCLASSIFIED

**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	Public Works and Government Services Canada	2. Branch or Directorate / Direction générale ou Direction PPB
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 GCC Rehabilitation requires an Environmental & Geotechnical consultant service contract for an abatement and demolition construction phase		
5. a) Will the supplier require access to Controlled Goods? Le fournisseur aura-t-il accès à des marchandises contrôlées?		<input checked="" type="checkbox"/> No / Non <input type="checkbox"/> Yes / Oui
5. b) Will the supplier require access to unclassified military technical data subject to the provisions of the Technical Data Control Regulations? Le fournisseur aura-t-il accès à des données techniques militaires non classifiées qui sont assujetties aux dispositions du Règlement sur le contrôle des données techniques?		<input checked="" type="checkbox"/> No / Non <input type="checkbox"/> Yes / Oui
6. Indicate the type of access required / Indiquer le type d'accès requis		
6. a) Will the supplier and its employees require access to PROTECTED and/or CLASSIFIED information or assets? Le fournisseur ainsi que les employés auront-ils accès à des renseignements ou à des biens PROTÉGÉS et/ou CLASSIFIÉS? (Specify the level of access using the chart in Question 7. c) (Préciser le niveau d'accès en utilisant le tableau qui se trouve à la question 7. c)		<input checked="" type="checkbox"/> No / Non <input type="checkbox"/> Yes / Oui
6. b) Will the supplier and its employees (e.g. cleaners, maintenance personnel) require access to restricted access areas? 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.		<input type="checkbox"/> No / Non <input checked="" type="checkbox"/> Yes / Oui
6. c) Is this a commercial courier or delivery requirement with no overnight storage? S'agit-il d'un contrat de messagerie ou de livraison commerciale sans entreposage de nuit?		<input checked="" type="checkbox"/> No / Non <input type="checkbox"/> Yes / Oui
7. a) Indicate the type of information that the supplier will be required to access / Indiquer le type d'information auquel le fournisseur devra avoir accès		
Canada <input type="checkbox"/>	NATO / OTAN <input type="checkbox"/>	Foreign / Étranger <input type="checkbox"/>
7. b) Release restrictions / Restrictions relatives à la diffusion		
No release restrictions Aucune restriction relative à la diffusion <input type="checkbox"/>	All NATO countries Tous les pays de l'OTAN <input type="checkbox"/>	No release restrictions Aucune restriction relative à la diffusion <input type="checkbox"/>
Not releasable À ne pas diffuser <input type="checkbox"/>		
Restricted to: / Limité à: <input type="checkbox"/> Specify country(ies): / Préciser le(s) pays:	Restricted to: / Limité à: <input type="checkbox"/> Specify country(ies): / Préciser le(s) pays:	Restricted to: / Limité à: <input type="checkbox"/> Specify country(ies): / Préciser le(s) pays:
7. c) Level of information / Niveau d'information		
PROTECTED A PROTÉGÉ A <input type="checkbox"/>	NATO UNCLASSIFIED NATO NON CLASSIFIÉ <input type="checkbox"/>	PROTECTED A PROTÉGÉ A <input type="checkbox"/>
PROTECTED B PROTÉGÉ B <input type="checkbox"/>	NATO RESTRICTED NATO DIFFUSION RESTREINTE <input type="checkbox"/>	PROTECTED B PROTÉGÉ B <input type="checkbox"/>
PROTECTED C PROTÉGÉ C <input type="checkbox"/>	NATO CONFIDENTIAL NATO CONFIDENTIEL <input type="checkbox"/>	PROTECTED C PROTÉGÉ C <input type="checkbox"/>
CONFIDENTIAL CONFIDENTIEL <input type="checkbox"/>	NATO SECRET NATO SECRET <input type="checkbox"/>	CONFIDENTIAL CONFIDENTIEL <input type="checkbox"/>
SECRET SECRET <input type="checkbox"/>	COSMIC TOP SECRET COSMIC TRÈS SECRET <input type="checkbox"/>	SECRET SECRET <input type="checkbox"/>
TOP SECRET TRÈS SECRET <input type="checkbox"/>		TOP SECRET TRÈS SECRET <input type="checkbox"/>
TOP SECRET (SIGINT) TRÈS SECRET (SIGINT) <input type="checkbox"/>		TOP SECRET (SIGINT) TRÈS SECRET (SIGINT) <input type="checkbox"/>

APPENDIX E



Government of Canada / Gouvernement du Canada

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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?
Le fournisseur aura-t-il accès à des renseignements ou à des biens COMSEC désignés PROTÉGÉS et/ou CLASSIFIÉS? No / Non Yes / Oui
If Yes, indicate the level of sensitivity:
Dans l'affirmative, indiquer le niveau de sensibilité :

9. Will the supplier require access to extremely sensitive INFOSEC information or assets?
Le fournisseur aura-t-il accès à des renseignements ou à des biens INFOSEC de nature extrêmement délicate? No / Non Yes / Oui
Short Title(s) of material / Titre(s) abrégé(s) du matériel :
Document Number / Numéro du document :

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

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

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

Special comments: **Only screen personnel to be utilized.**
Commentaires spéciaux : _____

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

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

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

INFORMATION / ASSETS / RENSEIGNEMENTS / BIENS

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

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

PRODUCTION

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

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

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

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

APPENDIX E



Government of Canada / Gouvernement du Canada

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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			CONFIDENTIAL / CONFIDENTIEL	SECRET	TOP SECRET / TRÈS SECRET
											A	B	C			
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? No / Non Yes / Oui
 La description du travail visé par la présente LVERS est-elle de nature PROTÉGÉE et/ou CLASSIFIÉE?

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

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

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

APPENDIX F

Information related to Security Requirement (Appendix E SRCL)

PROPONENT (Environmental Engineer)	
Legal Name of Firm:	
Complete Address:	
Telephone Number:	
CISD File Number:	
Organization Security Clearance:	

Sub-Consultants / Specialists (Certified Industrial Hygienist)	
Legal Name of Firm:	
Complete Address:	
Telephone Number:	
CISD File Number:	
Organization Security Clearance:	

APPENDIX F

Sub-Consultants / Specialists (Solid Waste Management Specialist)	
Legal Name of Firm:	
Complete Address:	
Telephone Number:	
CISD File Number:	
Organization Security Clearance:	

Sub-Consultants / Specialists (Geotechnical Engineer)	
Legal Name of Firm:	
Complete Address:	
Telephone Number:	
CISD File Number:	
Organization Security Clearance:	

APPENDIX F

The Proponent's Key Personnel identified in SRE 3.2.3 and any other proposed individuals must meet the security requirements as indicated in Supplementary Conditions SC1.

PERSONNEL	
Legal Name of Individual:	
Name of Firm:	
Level of Security Clearance:	
Validity period of Security Clearance:	
Security Screening Certificate and Briefing Form File Number or CISD File Number:	

PERSONNEL	
Legal Name of Individual:	
Name of Firm:	
Level of Security Clearance:	
Validity period of Security Clearance:	
Security Screening Certificate and Briefing Form File Number or CISD File Number:	

PERSONNEL	
Legal Name of Individual:	
Name of Firm:	
Level of Security Clearance:	
Validity period of Security Clearance:	
Security Screening Certificate and Briefing Form File Number or CISD File Number:	

ENVIRONMENTAL ENGINEERING SERVICES FOR THE GCC REHABILITATION

SUBMISSION REQUIREMENTS AND EVALUATION

- SRE 1 General Information
- SRE 2 Proposal Requirements
- SRE 3 Submission Requirements and Evaluation
- SRE 4 Price of Services
- SRE 5 Total Score
- SRE 6 Submission Requirements – Checklist

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 R1110T General Instructions to Proponents (GI3).

1.2 Calculation of Total Score

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

Technical Rating x 90%	=	Technical Score (Points)
<u>Price Rating x 10%</u>	=	<u>Price Score (Points)</u>
Total Score	=	Max. 100 Points

SRE 2 PROPOSAL REQUIREMENTS

2.1 Requirement for Proposal Format

The following proposal format information must be implemented when preparing the proposal.

- Submit one (1) bound original plus six (6) bound copies of the proposal
- Paper size should be - 216mm x 279mm (8.5" x 11")
- Minimum font size - 11 point Times or equal
- Minimum margins - 12 mm left, right, top, and bottom
- Double-sided submissions are preferred
- One (1) 'page' means one side of a 216mm x 279mm (8.5" x 11") sheet of paper
- 279mm x 432 mm (11" x 17") fold-out sheets for spreadsheets, organization charts etc. will be counted as two pages.
- 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 (30) pages.

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

- Covering letter and Letters of Reference
- Declaration/Certifications Form (Appendix A)
- Price Proposal Form (Appendix B)
- Consultant Team Identification (Appendix C)
- Information related to Security Requirement (Appendix F)
- Mandatory requirements listed in SRE 3.1
- Code of Conduct Certifications
- Front page of the RFP
- Front page of revision(s) to the RFP

Consequence of non-compliance: any pages which 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 as non-responsive and no further evaluation will be carried out.

3.1.1 Licensing, Certification or Authorization

The Proponent shall be authorized to provide environmental and geotechnical engineering services and must include a licensed industrial hygienist, certified or otherwise authorized to provide the necessary professional services to the full extent that may be required by provincial or territorial law in the province of Ontario.

3.1.2 Consultant Team Identification

The Consultant Team to be identified must include the following:

Proponent

- Environmental Engineering Consultant

Key Sub-consultants / Specialists

- Certified Industrial Hygienist
- Geotechnical Engineer
- Solid Waste Management Specialist

Information required - name of firm, key personnel to be assigned to the project. For the prime consultant indicate current license and/or how you intend to meet the provincial or territorial licensing requirements. In the case of a joint venture identify the existing or proposed legal form of the joint venture (refer to R1110T General Instructions to Proponents, GI9 Limitation of Submissions).

3.1.3 Declaration/Certifications Form

Proponents must complete, sign and submit the following:

- Annex A, Declaration/Certifications Form as required

3.1.4 Code of Conduct Certifications

Proponents, 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 Proponent. Proponents bidding as sole proprietorship, including those bidding as a member of a joint venture, must provide the name of the owner with their bid or promptly thereafter. Proponents bidding as societies, 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 Proponent 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.

3.1.5 Security Requirement

The security requirements must be met upon bid closing. The following conditions for contract award must be met:

- a. The Proponent's Key Personnel identified in SRE 3.2.3 and any other 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. The Proponent must provide this security information Annex F;
- b. The Proponent's proposed location of service performance or document safeguarding must meet the security requirement as indicated in Supplementary Conditions SC1. The Proponent must provide the address(es) of proposed location(s) of service performance or document safeguarding as indicated in Appendix B - Declaration/Certifications Form;

If the required security information is not provided in Appendix F, Canada will inform the Proponent of a time frame within which to provide the information. Failure to comply will render the proposal non-responsive.

3.1.6 Client References

Client References are required in SRE 3.2.1 Achievements of Proponent on Projects and SRE 3.2.2 Achievements of Key Sub-consultants and Specialists on projects.

If any of this information is not provided in the proponent's proposal, Canada will provide a timeframe by which it must be provided. Failure to provide the requested information will render the Proponent non-responsive.

3.2 RATED REQUIREMENTS

The following requirements will be evaluated and rated by a PWGSC Evaluation Board. The price proposal of each Proponent may or may not be opened.

3.2.1 Achievements of Proponent on Projects

Describe the Proponent's accomplishments, achievements and experience on projects.

Select a maximum of two (2) Environmental Engineering Service projects where construction has reached substantial completion or have been completed within the last 10 years. Only the two (2) projects listed in sequence will receive consideration and any others will receive none as though not included. Clearly indicate the building program, building scale, budget, and heritage designation of building. Joint venture submissions are not to exceed the maximum number of projects and one (1) of the projects submitted must demonstrate past experience working in this same joint venture capacity.

The Proponent must clearly illustrate experience and core competencies pertinent to:

- a. Environmental Engineering Consultant, abatement and experience with heritage conservation and building rehabilitation.
- b. Hazardous materials abatement management from concept to completion, including project management, cost, and schedule experience with compliance to occupant and worker safety, environmental regulations, building owners/operators, restoration contractors, insurance claims and adjusters.
- c. External stakeholder involvement
- d. Removal of base building systems in terms of abatement
- e. Working with a Construction Management project delivery approach.
- f. Complete contract document delivery including drawings, specifications and information for bidding and tendering purposes.

Information that should be supplied:

1. A clear indication of how the project is comparable/relevant to the project in this RFP.
2. Project title, location, building program, environmental program, building scale (m2), year started and year completed, overall construction budget, environmental construction budget and heritage designation.
3. Project description and intent. Narratives should include a discussion of abatement and geotechnical approaches to meet the intent of the project and the design challenges and resolutions of the project.
4. Client references and title or role on project– name, company name and phone number of client contact at working level (i.e. having a direct knowledge of project).
5. Names of key personnel responsible for project delivery and brief description of their role and responsibility on project.
6. Awards received

The Proponent (as defined in R1110T General Instructions to Proponents, GI2 Definitions) must possess the knowledge 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.

Proponents should indicate those projects which were carried out in joint venture and the responsibilities of each of the involved Joint Venture entities in each project and percentage of the responsibilities of each JV entity.

3.2.2 Achievements of Key Sub-consultants and Specialists on Projects

Describe the accomplishments, achievements and experience on projects. If the Proponent proposes to provide multi-disciplinary services which might otherwise be performed by a sub-consultant, this should be reflected here.

Present a maximum of two (2) projects where construction has reached substantial completion or been completed within the last 10 years per key sub consultant or specialist identified in section 3.1.2. Only the first 2 projects listed in sequence (per key sub consultant or specialist) will receive consideration and any others will receive none as though not included.

The Proponent should clearly demonstrate experience pertinent to:

- a. Abatement and selective demolition
- b. Geotechnical and subsurface assessment and scope implementation
- c. Working with a Construction Management project delivery approach.

Information that should be supplied:

1. A clear indication of how the project is comparable/relevant to the project in this RFP.
2. Project title, location, building scale (m2), year started and year completed, overall construction budget, abatement-demolition budget, geotechnical-subsurface work budget and heritage designation
3. Project description and intent. The project narratives should include a discussion of the experience gained that brings relevance to this project and also describe the intent of the project; the design philosophy / approach to meet the intent; and design challenges and resolutions.
4. Names of key personnel responsible for project delivery and brief description of their role and responsibility on project.
5. Client references – name, company name and phone number of client contact at working level (i.e. having a direct knowledge of project).
6. Awards received.

3.2.3 Achievements of Key Personnel on Projects

Describe the experience and performance of key personnel to be assigned to this project regardless of their past association with the current proponent firm. This is the opportunity to emphasize the strengths of the individuals on the team, to recognize their past responsibilities, commitments and achievements. Key Personnel should include the following as a minimum, if multiple functions are proposed to be performed by one Key personnel, it should be identified here:

- Senior Environmental Engineer
- Intermediate Environmental Engineer
- Certified Industrial Hygienist (CIH)
- Senior Geotechnical Engineer
- Intermediate Geotechnical Engineer
- Solid Waste Management Specialist

Senior personnel above should have at least 15 years experience in their field of expertise. Intermediate personnel above should have at least 10 years experience in their field of expertise.

Information that should be supplied for each key personnel:

1. Individuals name, title and name of firm
2. Professional accreditation details (province, year, status, etc.)
3. A description of expertise and experience (with number of years) relevant to this project

4. A demonstration of roles, responsibilities and degree of involvement of individual on past projects that will corroborate the person's experience and expertise.
5. Special accomplishments / achievements / awards

3.2.4 Understanding of the Project

The Proponent should demonstrate understanding of the project objectives, constraints and the issues that will affect the design, delivery and implementation of the Project.

Information that should be supplied:

1. Demonstrate an understanding of the significant issues, challenges and constraints.
2. Demonstrate an understanding of the implementation strategy.
3. Demonstrate an understanding of the schedule and cost.

3.2.5 Scope of Services

The Proponent should demonstrate an understanding of the full scope of service for this project. Describe the Proponent's capability to perform the services and meet project challenges.

Information that should be supplied:

A demonstration of the Proponent's understanding of the professional services, interaction with other stakeholders, deliverables and related timelines required for this project.

3.2.6 Management of Services

The Proponent should describe their:

- a. Internal quality assurance and control processes to ensure that all services are delivered fully coordinated with the overall project scope, on time, on budget and at the highest level of quality;
- b. Ability to meet the project constraints;
- c. Communication strategy;
- d. Organization structure and how that structure will interact with the other project stakeholders;
- e. Roles and responsibilities, in detail, of the key personnel and provide a narrative clearly explaining the rationale.

Provide a work plan with a breakdown of all services and deliverables. Include a narrative describing the work plan. In the narrative, indicate how the Proponent will address changes to the work plan during the implementation of the project, including how provision of the Proponent's key personnel will be addressed.

If the Proponent proposes to provide multi-disciplinary services which might otherwise be performed by a sub-consultant, this should be reflected here.

Information that should be supplied:

1. Confirm the makeup – profile of the Proponent team, including the names of the key personnel and their role and responsibilities on the project;
2. Organization chart with position titles and names (Consultant team), what back-up will be committed and reporting relationships. Joint Venture business plan, team structure and responsibilities, if applicable;
3. Internal quality assurance and control processes;

4. Work Plan - detailed breakdown of work tasks and deliverables with an estimation of levels of effort;
5. Communication strategies – lines of communication and reporting structure within Proponent team and with the project stakeholders; and
6. Project Response Time: demonstrate how the response time outlined in PA 1.10 requirements will be met.

3.3 EVALUATION AND RATING

3.3.1 Technical Rating

Price envelopes will remain sealed and only the technical components proposal which are responsive will be reviewed, evaluated and rated by a PWGSC Evaluation Board in accordance with the following:

Criterion	Weight Factor	Rating	Weighted Rating
3.2.1 - Achievements of Proponent	1.5	0 - 10	0 - 15
3.2.2 - Achievements of Key Sub-consultants / Specialists	1.5	0 - 10	0 - 15
3.2.3 - Achievements of Key Personnel on Projects	1.5	0 - 10	0 - 15
3.2.4 - Understanding of the Project - technical, schedule & cost	1.0	0 - 10	0 - 10
3.2.5 - Scope of Services	1.5	0 - 10	0 - 15
3.2.6 - Management of Services	3.0	0 - 10	0 - 30
Technical Rating Total	10.0		0 - 100

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

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

Generic Evaluation Table

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

	INADEQUATE	WEAK	ADEQUATE	FULLY SATISFACTORY	STRONG
0 point	2 points	4 points	6 points	8 points	10 points
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 an excellent 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 do 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 capability to meet performance requirements	Acceptable capability, should ensure adequate results	Satisfactory capability, should ensure effective results	Superior capability, should ensure very effective results

SRE 4 PRICE OF SERVICES

All price proposal envelopes corresponding to responsive proposals which have achieved the pass mark of sixty (60) points will be opened upon successful completion of the technical evaluation. An average price is determined by adding all the price proposals together and dividing the total by the number of price proposals being opened.

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:

1. The lowest price proposal receives a Price Rating of 100
2. 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.
3. On the rare occasions where two (or more) price proposals are identical, the matching 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 (Points)
Technical Rating	60 - 100	90	54 - 90
Price Rating	0 - 100	10	0 - 10
Total Score		100	54-100

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 lower price for the services will be selected.

SRE 6 SUBMISSION REQUIREMENTS - CHECKLIST

The following list of documents and forms is provided with the intention of assisting the Proponent in ensuring a complete submission. The Proponent is responsible for meeting all submission requirements.

Please follow detailed instructions in R1110T General Instructions to Proponents, GI16 Submission of Proposal. Proponents may choose to introduce their submissions with a cover letter.

Technical Proposal:

- Declaration/Certifications Form - completed and signed - form provided in Annex A
- Proposal - one (1) original plus five (5) copies
- Code of Conduct Certifications - list of directors / owners
- Front page of RFP
- Front page(s) of any solicitation amendment
- Team Identification - see typical format in Annex C

In a separate envelope:

- Price Proposal form - one (1) completed and submitted in a separate envelope form provided in Annex B

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TERMINOLOGY

The following terms are used in this document:

EC	The Environmental Consultant with geotechnical engineering and other expertise in contract with PWGSC for the Services outlined in this Project Brief.
A&E Consultant	The prime consultant contracted by PWGSC to provide all architectural and engineering services related to the planning, demolition, design and construction of the Project.
AD	Abatement and Demolition
CC	The cost consultant in contract with PWGSC engaged to provide third party independent cost advisory and quality assurance services.
Client/ User	The Senate of Canada (Senate) is the principle occupant.
COE	PWGSC Centre of Expertise.
CM	The construction management firm contracted by PWGSC to provide construction-related advice during the planning, design and construction documentation phases and to provide construction management services during the implementation of the Project.
DR	Departmental Representative
FHBRO	Federal Heritage Buildings Review Office
HCD	Heritage Conservation Directorate
PMSS	The firm in contract with PWGSC to provide project management support services for this Project.
PM Team	The combined PWGSC project management and PMSS team, including the CC and SC responsible for project and program management.
Project Team	The combined private sector and government sector teams responsible for delivering the Project including the PM Team, Client-Users, EC, CM, A&E Consultant and other persons as deemed required by the Departmental Representative.
SC	The scheduling consultant in contract with PWGSC engaged to provide third party independent time management advisory and quality assurance services.

PROJECT DESCRIPTION

PD 1 PROJECT INFORMATION

Public Works and Government Services Canada (PWGSC) intends to retain a professional engineering firm in the capacity of an Environmental Consultant (EC). This firm will be supported by a team of sub-consultants and specialists in the abatement and geotechnical requirements for the Government Conference Centre (GCC) Rehabilitation Project. Construction will be implemented by a Construction Manager (CM) contracted separately by PWGSC.

The EC must work closely and collaborate continuously with the A&E Consultant, who is responsible for the overall building rehabilitation design. The EC shall prepare and actively manage all aspects of the geotechnical and abatement design and implementation associated with this Project and prepare a Consolidated Waste Inventory and Reduction Plan in conjunction and coordination with the A&E Consultant and the CM. Services shall be provided in accordance with “Doing Business with NATIONAL CAPITAL AREA”, as detailed in an annex to this RFP.

The Project schedule is extremely compressed, with an overall Completion date of December 2017. As such, the geotechnical, demolition and abatement work is critical to the subsequent building fit-up. The proactive delivery and management of Services will be one of the key factors in the overall success of this Project.

The GCC is a 101 year old classified heritage building that requires major rehabilitation. The building currently functions as a conference facility. The GCC has not undergone major work since the 1970s. The need to preserve this heritage building coincides with the need to find an interim accommodation for the Senate of Canada.

While PWGSC has obtained Project Approval and partial funding from Treasury Board (TB), TB has not granted complete Project expenditure authority. PWGSC anticipates that full Project expenditure authority will be obtained in September 2014. As such, the Contract related to the Project Brief shall be split into two parts. Part one shall be for the anticipated Required Services from Contract award to September 2014. Part two shall be for optional Required Services for the remainder of the Project. Part two of the Contract shall be exercised via formal Contract amendment. Refer to the Price Proposal form.

PD 1.1 PWGSC Project Title: Environmental Engineering Services for the GCC Rehabilitation

PD 1.2 Location of the Project: 2 Rideau Street, Ottawa, Ontario

PD 1.3 PWGSC Project Number: R.060749.034

PD 1.4 Client / User: Senate of Canada

PD 2 PROJECT IDENTIFICATION/DESCRIPTION

PD2.1 Overview

The GCC is a classified heritage building that requires major rehabilitation. Once rehabilitated, the building will serve as interim Senate accommodations for key Senate functions including: the Senate Chamber, three new Committee Rooms, leadership and legislative functions - 21 Parliamentary Office Units (POUs). In the long-term it will revert to conference facility use. The following is a high level overview outlining the various elements of the Project, which includes but are not limited to:

a) Heritage Character

The GCC is a classified federal heritage building because of its historical associations and its architectural and environmental values.

Historical value:

Originally built as Ottawa's Union Station, the present-day GCC is one of the best examples of the great railway-building era in pre-war Canada, an activity central to the development of Canada's early national unity and prosperity. The building continues to shape the country's political and cultural identity in its role as the Government Conference Center, the locale for major national and international conferences. Originally as a port of entry to the Capital and later as a meeting venue, the building has long been associated with many figures of national and international significance. The building strongly depicts several phases of Ottawa's development such as its function as a capital city as well as in the development of the city core.

Architectural value:

The GCC is an excellent example of the Beaux-Arts tradition, a design favoured for this building type. The ordering of both the exterior and the interior are related expressions of Beaux-Arts design principles. Exhibiting the full vocabulary of classical forms, the symmetrical composition, large colonnades and arches of the building's formal entrance and linear facades express the progression of spaces on the interior. As well, the axial symmetry and the progression of the interior spaces, of varying heights and proportions, permit a large, open layout in main spaces. Excellent decorative treatments and materials complement the overall design of the building.

The GCC reinforces the present character of Confederation Square in the commercial area of Ottawa's downtown. The building is a familiar landmark to the residents of the city and the region.

b) Environmental/Sustainable Development

The Project provides the opportunity to incorporate innovative, sustainable and environmentally responsible design options into the rehabilitation. PWGSC policy requires that rehabilitation projects of Crown-owned buildings meet, at a minimum, Leadership in Energy and Environmental Design (LEED) Silver or equivalent standard. The equivalent will be Green Globes Design for New Buildings and Retrofits and the target shall be a minimum 70% rating, or 3 Green Globes.

c) Hazardous Materials, Abatement and Demolition

A number of hazardous materials have been identified through various studies of the GCC. The EC shall refer to the *Designated Substance Report* annexed to this RFP for a summary of the hazardous materials currently known to be within the building. Pre-construction exploratory investigations were completed in 2013. The investigation findings are summarized in an annex to this RFP.

The EC must consider the existing atypical building construction evidenced by massive spans and open building volumes within each building block for the planning and execution of the abatement program. The level of effort of the EC and the abatement contractor(s) will be significantly greater than a standard office or warehouse building.

d) Structural

The GCC does not conform to the current PWGSC policy for seismic resistance. Seismic upgrade and systems reinforcement will form part of the scope of this Project. As such, an immediate and formative geotechnical engineering analysis and design and implementation requirements must be coordinate with the A&E Consultant and the CM.

e) Mechanical System Replacement and Upgrades

Full removal and replacement of the mechanical systems is required for the rehabilitation.

f) Electrical Systems Replacement and Upgrades

Full removal and replacement of the electrical systems is required for the rehabilitation. The existing emergency generator and ancillary equipment may be replaced.

PD2.2 Cost

The Project shall respect the approved class D budget of \$5,000,000.00 for abatement and \$500,000.00 for the geotechnical work. The budget is inclusive of design and construction contingencies. The budget does not include HST or professional fees. It is the EC's responsibility to define the scope and develop strategies, in conjunction with the CM, in order to maintain and manage the scope of this mandate to remain within the approved budget.

PD2.3 Schedule

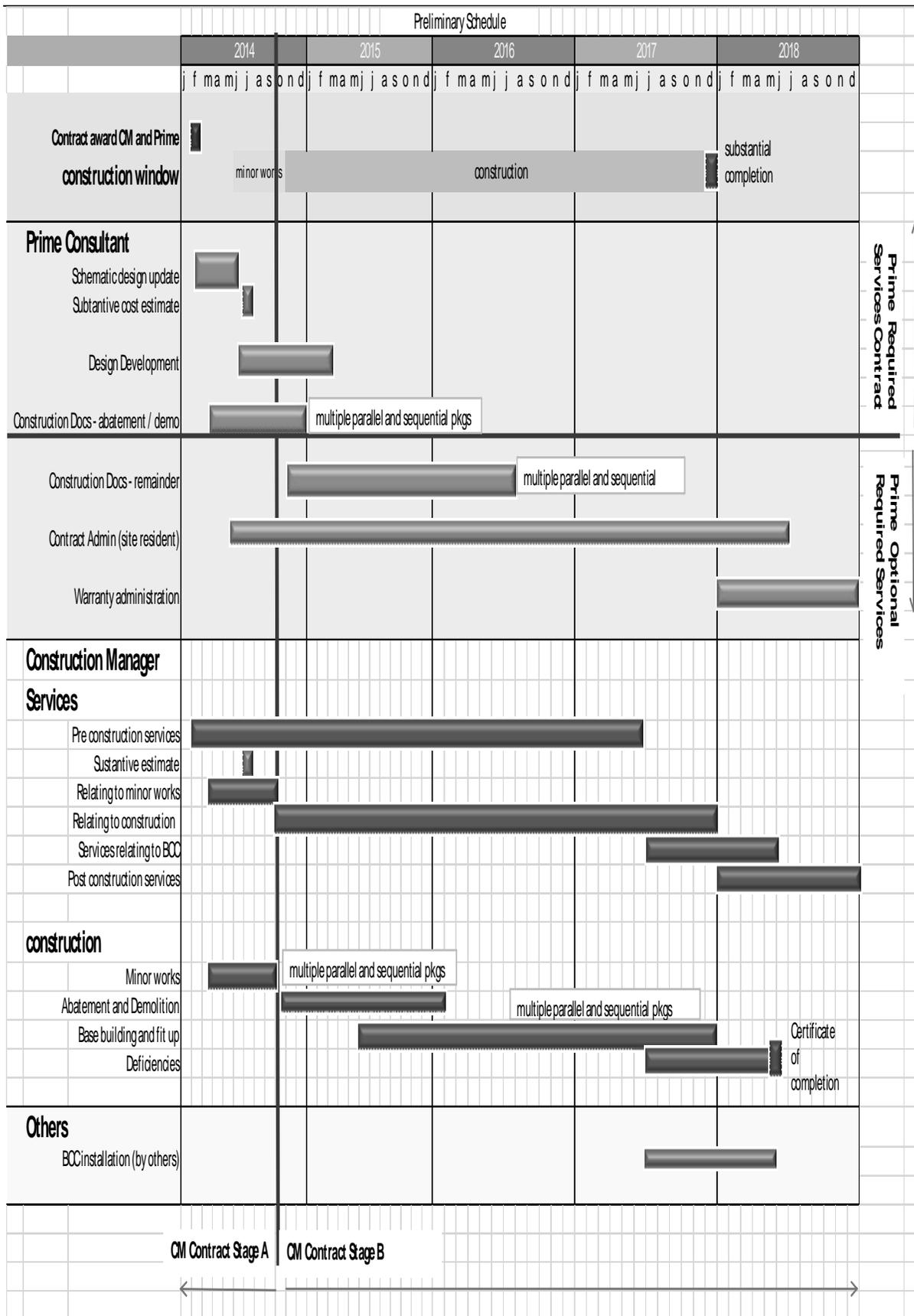
The EC must ensure that activities are planned and implemented concurrently with the A&E Consultant. The EC must provide the required level of effort to meet or shorten the prescribed milestone dates below.

Current milestone dates - durations

EC Team Award	February 2014
A&E Consultant and CM Award	February 2014
EC on-site investigations and scope verification	February to June 2014
Building vacated	June 2014
Construction mobilization	June 2014
A&E schematic design scope review and verification	June 2014
Abatement and geotechnical design development docs	June 2014

A&E demolition construction documents	June to December 2014
Abatement and geotechnical construction documents	June to December 2014
Abatement and subsurface construction	October 2014 to February 2016
Substantial Completion	December 2017
Final Completion	September 2018

The following schedule demonstrates the above information and provides further clarifications.



PD2.4 Implementation Strategy

PD2.4.1 Schematic Design by Others

In order to accelerate the Project Schedule, a separate team was engaged by PWGSC to develop a functional program, architectural, structural, mechanical and electrical design options and analysis, all which respond to the requirements of the Project. The EC must review and understand all aspects of this schematic design, which will be available upon contract award. The schematic design will be further developed by the A&E Consultant.

PD2.4.2 Construction Management

In order to meet the Project Completion date, a Construction Manager will be retained to concurrently tender and execute the various parts of the Project, as they become available.

PD2.4.3 Geotechnical, Abatement and Demolition Work

Geotechnical and abatement – demolition work must start as prescribe in section PD 2.3 above. Upon contract award, the A&E Consultant, the EC and the CM must work closely to establish an Abatement and Demolition (AD) program. The AD program must include all temporary services required to support the building during construction operations.

While the EC will be responsible for only the geotechnical and abatement design and contract administration, it is mandatory that the EC co-operate with the A&E Consultant and CM for a fully coordinated AD program of work, as defined by the A&E Consultant to meet the overall Project fit-up and rehabilitation requirements. All geotechnical and abatement work shall be fully reflective of the approved demolition scope of work prepared by the A&E Consultant.

PD 3 PROJECT BACKGROUND

3.1 Project and Building History

The GCC was built between 1909-1912 and is located on the south side of Rideau Street facing Confederation Square, across from the Chateau Laurier Hotel. Colonel By Drive defines the eastern boundary of the Site. The Rideau Canal, a World Heritage Site, defines the western boundary of the Site. The building was designed as Ottawa's central Union Station to the specifications of architects Bradford Lee Gilbert and Ross and McFarlane. The design is of the the Beaux-Arts idiom of major train stations across Canada. The building functioned as a train station until 1966 when Ottawa's rail services were relocated to the new station on Tremblay Road. In the same year, the train sheds to the south and west were demolished and a large commercial building to the east, known as the Corey Block, was demolished. The original 1909-1912 building consisted of four distinct volumes, from North to South or the street to the trains, including the Main Entrance Block, the General Waiting Room, the Ticketing Block and the Concourse. In 1968 the Federal Government converted the building to a Government Conference Centre, which originally entailed interior alterations, and then by 1973, exterior alterations. Three principal exterior additions have been added to the building. In 1955 a penthouse was added over the Main Entrance Block. In 1973, a one-storey South Wing was added at

the location of the former train shed. In 1984, the east wall exposed by the demolition of the Corey Block was re-clad and a glass and metal fire staircase was added.

The GCC was designated “Classified”, the highest possible heritage designation, by the Federal Heritage Building Review Office (FHBRO) in 1989 for its historical associations and its architectural design and prominence and was also designated by the City of Ottawa in 1979. It is adjacent to the Rideau Canal, a UNESCO World Heritage Site and a National Historic Site of Canada, and forms part of the Confederation Square, a National Historic Site of Canada.

The Long Term Vision and Plan (LTVP) for the Parliamentary Precinct is an initiative of PWGSC with participation from all stakeholders to generate a comprehensive twenty-five year plan to preserve the existing historic assets and to provide new facilities and infrastructure to meet the needs of Parliament and the public. At the heart of the plan is the timely restoration and rehabilitation of the key heritage assets, first among these is the Centre Block. The Centre Block rehabilitation will require the interim relocation of key parliamentary functions including the House of Commons and Senate Chambers, Committee Rooms and associated leadership and legislative functions. The most recent strategic plans have assigned the GCC building to provide swing space for Senate functions in support of ongoing LTVP plan to rehabilitate Centre Block. The focus of this swing space will be the interim relocation of the Senate Chamber, Parliamentary Office Units for both the Senate leadership and legislative functions, and Committee Rooms. The swing space will be needed for an estimated period of 10 years.

In the longer term, after the interim use by the Senate, the building will revert back to its use as a government conference facility.

PD3.2 Existing Building Information

The following provides a summary profile of the GCC building and history.

Location:	2 Rideau Street
Number of Stories:	6 above grade
Gross Building Area:	12,906 m ²
Proposed Building Use:	Assembly, administration and support services, occupation by the Senate of Canada, staff and the public.
Current Occupancy:	PWGSC administrative, support services and assembly occupancies.
Built:	1909-1912 by <u>Grand Trunk Railway</u>
Architects:	1909-1912: Bradford Lee Gilbert and Ross and McFarlane 1955 Penthouse Addition: 1973 Ground Floor South Addition: Alistair M. Ross Architect 1984 East Stairwell:
Acquired by Crown:	1967
Heritage Designation:	Designated as “Classified” by FHBRO, 1989
Pedestrian Access:	From Rideau Street or Colonel By Drive
Loading:	Access via Colonel By Drive

Parking:	East Parking lot: approximately 10 cars South Entrance circle: 3 reserved parking spots and additional loading parking only.
Vertical Transportation:	2 passenger elevators, 1 dumbwaiter
Construction:	Concrete slab supported by concrete encased steel beams spanning between load bearing masonry walls.
Façade:	Original 1909-1912 Construction: Limestone on granite base 1955 Penthouse Addition: Limestone cladding / Brick 1973 Gr. Fl. South Addition: Precast Concrete Cladding 1984 East Stair Addition/East Wall repair: Stucco / Precast concrete.
Current Known Hazardous Substances:	Asbestos, lead based paint, mercury, possible PCB's, ODS and silica.

PD 4 EXISTING DOCUMENTATION

PD4.1 Existing Documentation - available for all proponents (on Internet)

- a. FHBRO Heritage Character Statement -
(http://www.pc.gc.ca/apps/dfhd/page_fhbrogeng.aspx?id=3821)
- b. Standards and Guidelines for Conservation of Historic Places in Canada
(<http://www.pc.gc.ca/progs/rclp-crhp/standards.aspx>)
- c. Treasury Board Policy on the Management of Real Property (<http://www.tbs-sct.gc.ca/pol/doc-eng.aspx?id=12042§ion=text>)
- d. Environmentally Responsible Construction and Demolition Handbook
(<http://www.tpsgc-pwgsc.gc.ca/biens-property/gd-env-cnstrctn/index-eng.html>),
- e. Green Office at a Glance Handbook (<http://www.tpsgc-pwgsc.gc.ca/biens-property/env/page-1-eng.html>),
- f. Fire protection during construction shall be governed by:
 - i. Treasury Board Fire Protection Standard (<http://www.tbs-sct.gc.ca/pol/doc-eng.aspx?id=17316§ion=text>)
 - ii. National Fire Code and other applicable standards, regulations and Acts.

PD4.2 Existing Documentation – available for proponents, on CD's available upon request, in the language it was written:

- a. Environmental Report (Greenough)
- b. Designated Substances Survey Report (Golder - 2013)
- c. Exploratory Openings Investigation and Report (DST - 2013)
- d. Existing Building Plans
- e. Schematic Design (DFS/Arcop - 2013)
- f. Phase II Environmental Site Assessment (Dessau - 2010)
- g. Phase III Environmental Site Assessment (Amex - 2012)
- h. Geotechnical Subsurface Assessment 2013 (DST - 2013)

PD4.3 Existing Documentation - available upon contract award

Documents made reference to within this document, beyond list below, will be made available to the successful Proponent in the language written:

- a. A comprehensive BIM model of the existing facility and as found conditions.
- b. FHBRO Building Report: 88-28
- c. GCC Rehabilitation Project Master Schedule (Primavera and hard copy)
- d. PWGSC Federal Office Building Standards (FOBS)
- e. Heritage Conservation Plan, Feb 17 2012
- f. Government Conference Centre (GCC) Envelope Investigations
- g. Final Schematic Design (AutoCAD, PDF).
- h. Seismic Resistance of PWGSC Buildings

PD 5 PROGRAM

PD5.1 Functional Program

A Functional Program for the Project was completed. The total program is approximately 8,000 square meters. The program includes an interim Senate Chamber, three new committee rooms and ancillary support, leadership office functions including the Senate Speaker's suite, Leader of Government, Whip, etc., legislative office functions including the Black Rod and Senate Clerk, IT and business support functions, a loading dock, and an appropriate level of security in the context of an interim location.

It is anticipated that the Parliamentary Office Units (POU'S) and support functions will occupy the Main Entrance Block. Two medium size committee rooms will be located in the General Waiting Room, and one committee room will be in the Ticketing Block. The interim Senate Chamber will be located in the Concourse block. There will be two main entrances to the building. The public entrance at the North end of the facility will be off Rideau Street and the Senate entrance will be from the South addition.

PD5.2 Environmental / Sustainable Development Program

Sustainable Development objectives must be addressed throughout the evolution of the Project. Sustainable Development is defined in broad terms as a strategy that routinely and consistently includes the consideration of the environmental, economic and societal impact of every decision made for the Project. The general areas of focus include but are not limited to:

- a. Energy efficiency and conservation,
- b. Greenhouse gas emissions reduction,
- c. Water management and conservation,
- d. Pollution prevention,
- e. Product selection and resource conservation,
- f. Indoor environmental quality (thermal, air, and lighting quality and control),
- g. Site conservation (protection and preservation of valued natural site features), and
- h. Environmentally friendly maintenance procedures and products (e.g. low volatile organic compounds).
- i. Recycle and reuse

For this Project, a solid waste management program must be implemented for all phases of construction. The EC is to prepare a Consolidated Waste Inventory and Reduction Plan for final implementation by the CM. The inventory and plan shall be inclusive of the demolition scope of work prepared by the A&E Consultant. The final plan prepared by the CM shall be monitored by the EC throughout the implementation of the project.

PD5.3 Abatement and Demolition Program

Hazardous substances in the GCC have been detailed in the Designated Substance Survey Report. The EC will be required to plan, design and develop tender packages in connection with the required geotechnical and abatement work. The EC must actively provide Contract Administration with regards to all aspects of the scope of work the EC prepared, in coordination with the A&E Consultant, as well as the overall waste monitoring program.

The A&E Consultant will be responsible for building and heritage protection providing direction to the EC for geotechnical and abatement scope definition and removal methodology by the CM. There will be an interactive process between the A&E Consultant, HCD, the CM and the EC in determining which heritage elements require protection or removal. Encapsulation of heritage fabric that may contain hazardous materials will be required. Alternatively, elements could be removed and stored as directed by the A&E Consultant after appropriate abatement of the work area is completed. Accordingly, the EC must provide detailed, daily on-site monitoring and assessment of the geotechnical, abatement and demolition construction progress.

All areas where new and temporary architectural, structural, mechanical, and electrical systems are to be installed must be abated first to allow for construction and connection of temporary and permanent systems. A number of hazardous substances have been identified such as lead paint, mercury contained in approximately 3,500 fluorescent light tubes, silica within concrete products and other designated substances. Coal tar impregnated concrete in the basement must be considered a priority area to be actively managed when floor excavation is undertaken.

PD5.4 Temporary Work

The A&E Consultant, in consultation with the CM and EC, shall be required to identify, design and implement temporary architectural, structural, mechanical, and communication, electrical and fire protection requirements related to the subsequent abatement and demolition tender packages and for the transitional periods between tender packages, including:

- a. Temporary heat and ventilation of the interior,
- b. Mechanical portion of temporary fire protection systems,
- c. Mechanical ancillary systems required to maintain electrical systems supporting the generator and other life safety equipment,
- d. Temporary structural supports, and
- e. Temporary electrical requirements related to the construction site. Scaffolding enclosures and interior work (while existing electrical systems are removed) such as;
 - i. Power, lighting, security and fire protection,
 - ii. Emergency power to maintain heat, lighting and fire protection and supply to exterior services, and
 - iii. Lightning protection, as required.

The EC shall pay particular attention and provide full abatement requirements related to temporary partitions, buildings systems and all related services and work to isolate areas of the building occupied early from those areas still under construction, including, as a minimum:

- a. All temporary structures, partitions, protection (architectural work), mechanical, electrical and structural building systems, security,
- b. Construction constraints and sequencing to separate occupied and construction areas throughout the GCC, and
- c. Preliminary and/or repetitive commissioning of building systems required ensuring continuous, reliable and unencumbered occupancy.

PD 6 Project Objectives

Several objectives have been developed by PWGSC and the Senate in order to ensure overall suitability and success of the Project. The objectives are:

PD6.1 Cost Management

The EC shall explore all possible options for implementation of the geotechnical and abatement work, in conjunction with the A&E Consultant and the CM, so that the approved budget is respected.

PD6.2 Aggressive Schedule

The EC shall provide deliverables as prescribed in the Contract. Diligent follow-up throughout the construction period so that implementation risks are mitigated cannot be understated.

PD6.3 Waste Management

A solid waste management program must be implemented with greater than 80% waste diversion from landfill sites.

PD6.4 Health and Safety of Construction Site

PWGSC recognizes the responsibility to ensure the health and safety of all persons on Crown construction projects and the entitlement of both federal employees and private sector workers to the full protection afforded them by occupational health and safety regulations.

PD 7 EC Services

The EC and personnel identified in the Project Brief submission, includes all sub-consultants and specialists. Expertise and relevant experience requirements provided by the EC include the following:

- | | |
|--------------------------------|-----------------------|
| Environmental Engineer | Geotechnical Engineer |
| Certified Industrial Hygienist | |
| Solid Waste Specialist | |

DESCRIPTION OF SERVICES

PA1 PROJECT ADMINISTRATION

INTENT

The following administrative requirements apply during all phases of the Project.

PA1.1 PWGSC Project Management

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

The PWGSC Project Manager is directly concerned with the Project and is responsible for its progress. The PWGSC Project Manager is the liaison between the EC and the other Project Team stakeholders. PWGSC administers the Project and exercises continuing control over the EC's services during all phases of the Project. Unless directed otherwise by the PWGSC Project Manager, the EC is to obtain or cause to be obtained all federal, municipal and other governmental or regulatory requirements and approvals necessary for the geotechnical and abatement construction work.

PA1.2 Lines of Communication

All correspondence from the EC shall be distributed as directed by the PWGSC Project Manager. There shall be no correspondence or communication between Client/Users and the EC unless directed by the PWGSC Project Manager. The PWGSC Project Manager shall provide a correspondence protocol for incorporation by the EC into all Project communications.

All communications must carry the contract name/number, PWGSC project title and PWGSC Consultant contract number and a date in a non-ambiguous format (i.e. 01/09/02 is ambiguous and is not acceptable). Automatic date fields shall not be used except when preceded by the text "Printed on."

PA1.3 Media

The EC shall not respond to any requests for Project related information or questions from the media. Such inquiries must be directed to the PWGSC Project Manager.

The EC shall ensure that no staff of the EC (including sub-consultants, specialists, or suppliers) grants interviews with the media unless requested to do so by the PWGSC Project Manager. All contacts by reporters or others, requesting information about the Project, shall be referred to the PWGSC Project Manager immediately, without response to those requesting the information.

PA1.4 Confidentiality of Information

The EC and any person contracted or employed by the EC shall not discuss issues relating to the Project specifically including, but not limited to building layout, design, security provisions, except as they relate to the direct provision of Services related to this contract.

PA1.5 General Project Deliverables

Where deliverables and submissions include summaries, reports, drawings, plans, specifications and schedules, six (6) copies shall be provided along with a copy in native electronic format and PDF format, unless otherwise specified. Reports and manuals are to be prepared in English.

Electronic format shall mean:

Deliverable

Acceptable PWGSC Format

Written reports and studies:

MS Word

Spreadsheets and budgets:

MS Excel

Presentations:

MS PowerPoint and/or MS Visio

Schedules:

Microsoft Project

Change management, daily logs, etc.

TBD

Drawings:

AutoCad

Specifications:

NMS, in MS Word format

Web (Internet)

Adobe PDF, HTML, Macromedia Flash, etc.

Note: All plans and specifications will be generated and distributed in the format using layering and file transfer protocols as prescribed in 'Doing Business with NATIONAL CAPITAL AREA'. The deliverables shall be provided according to standards listed in 'Doing Business with NATIONAL CAPITAL AREA'.

PA1.6 Acceptance of EC Deliverables

Acceptances indicate that, based on a general review of material for specific issues, the material is considered to comply with governmental and departmental objectives and practices, and that overall Project objectives should be satisfied. The PWGSC Centre's of Expertise (COEs), the Client/Users and other Authorities Having Jurisdiction will review the EC's work product and will provide review comments. The EC will be required to respond formally in writing until all points are resolved.

PWGSC reserves the right to reject undesirable or unsatisfactory work. The EC must obtain the PWGSC Project Manager's acceptance during each of the Project stages before proceeding to the next stage.

No acceptance or approval by PWGSC, whether expressed or implied, shall be deemed to relieve the EC of professional or technical responsibility. Neither does acceptance of an estimate by PWGSC in any way abrogate the EC's responsibility to not exceed the approved construction budget throughout the life of the Project, or the requirement to redesign should the lowest acceptable bid differ significantly from the approved construction budget.

PA1.7 Coordination

The EC shall:

- a. Throughout all phases of the project, assume responsibility for completely coordinating the

-
- work products of the EC including coordination with the work products of the A&E Consultant and other specialist consultants,
- b. Ensure clear, accurate and ongoing communication of design concept, construction budget and scheduling issues (including changes) as they relate to the responsibilities of EC from the start to the end of the Project,
 - c. Provide input for the PWGSC Project Manager's risk management plan,
 - d. Coordinate quality assurance processes ensuring submissions of EC are complete and signed-off by the designated senior reviewer,
 - e. Ensure adequate and timely Site inspection Services and related reporting and
 - f. Attend all required meetings.

PA1.8 Meetings

This Project will require Project Team meetings. The EC will attend Project meetings weekly throughout the A&E Design phase and abatement contract administration phase, along with PWGSC representatives and Client/Users. The required attendance of EC personnel will vary depending on the nature of the meetings and will be determined by the PWGSC Project Manager in consultation with the EC in advance. Meetings will be held in Ottawa, generally in the offices of PWGSC.

The meetings will be chaired by the PWGSC Project Manager or nominated delegate. The EC shall attend meetings, record all issues and decisions where they are leading the meeting or as directed by PWGSC. Unless advised otherwise, the EC will prepare and distribute minutes of all EC lead meetings within 48 hours of the meeting.

PA1.9 Partnering Sessions

PWGSC intends to "partner" both the design phase and construction phases of this Project. Partnering is a collaborative, team-building process, based on improving communication and understanding among the project stakeholders to reach a common goal. While the contract resulting from this RFP establishes the legal obligations of the parties, the partnering process strives to establish positive working relationships, which will maximize the benefits to the project from the knowledge and experience of all stakeholders, while at the same time allowing all stakeholders to maximize their benefits from the project. Members of the EC, including representatives from the EC senior management will be required to attend partnering sessions. All members of the Project team will attend the Partnering sessions.

PWGSC will employ and pay a third party as facilitator for these sessions. The EC's cost to attend is to be included as part of the proposed fee for this Project. Two (2) one (1) day partnering workshops in the Ottawa area will be arranged by the PWGSC Project Manager during the implementation of the Project.

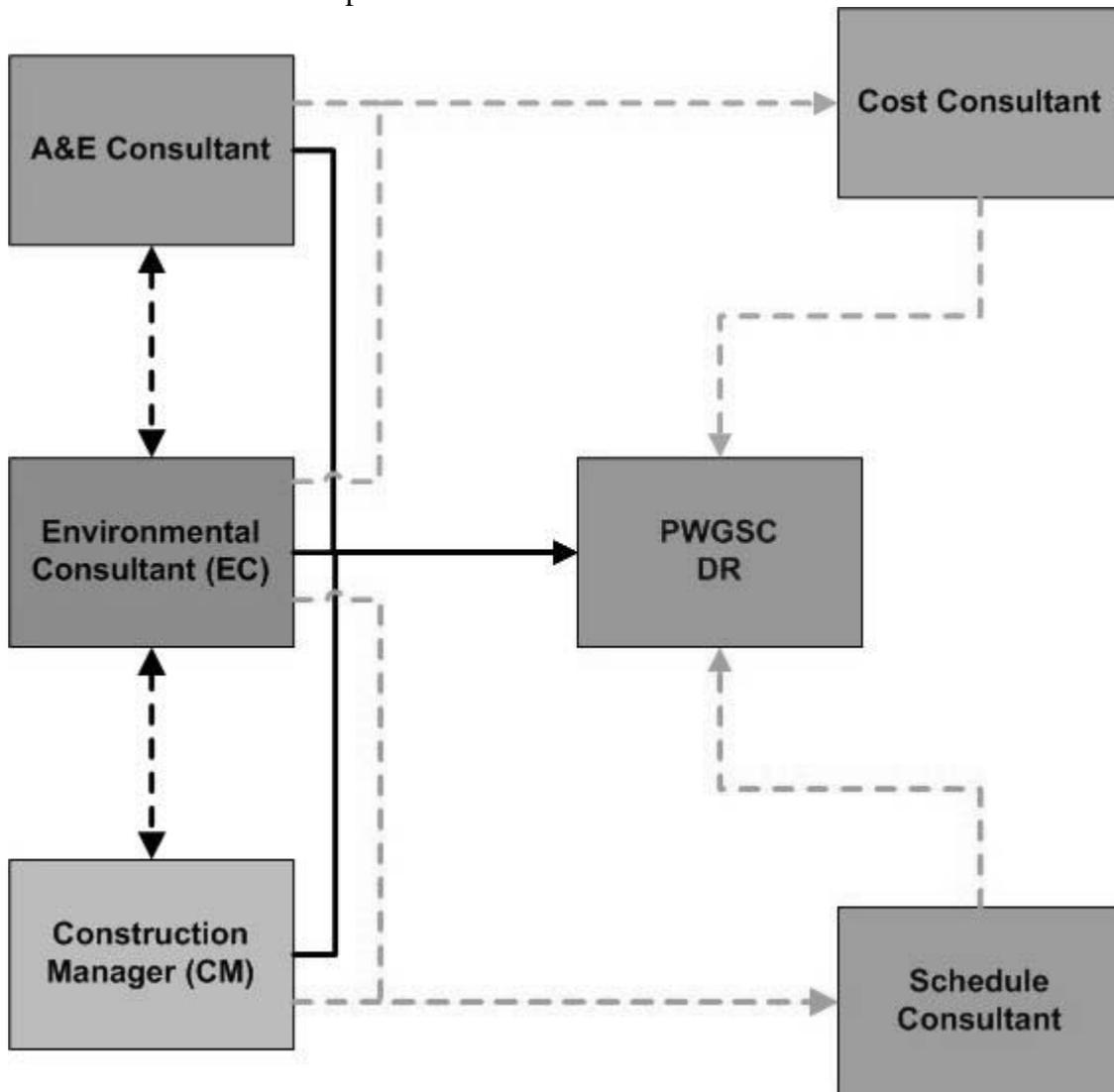
PA1.10 Response Time

It is a requirement of this project that the key personnel of the successful proponent and sub consultants or specialist be available to respond to inquiries within ½ day.

PA2 PROJECT TEAM ORGANIZATION

This Project is to be managed and implemented in a collaborative manner. All members of the Project Team are required to work cooperatively at every stage of the design and construction in order to assure the creation of a successful and meaningful end result. Under the leadership of the PWGSC Project Manager, all team members are responsible for establishing and maintaining a professional and cordial relationship. The Project Team refers to the key representatives, involved in coordinating and delivering this Project.

The following chart identifies the organizational relationships. Authorities Having Jurisdiction are not indicated. Solid lines indicate functional reporting relationships. Dotted lines indicate Project communication relationships.



REQUIRED SERVICES

General Requirements

The EC will deliver integrated and coordinated professional Services in accordance with the requirements set forth in this Project Brief. All Services must be provided in accordance with the requirements and standards identified in *Doing Business with NATIONAL CAPITAL AREA*. The Services will be administered stages for all stages of the Project.

RS 1. RS 1 REVIEW OF SCHEMATIC DESIGN PREPARED BY OTHERS

1.1 Intent

This stage is intended for the EC to review the schematic design and all Project requirements in order to understand the scope and magnitude of the rehabilitation program for the GCC. Consultations with the Project Team will be ongoing throughout this stage.

Concurrently, the EC will develop the design and construction documents for the abatement packages as recommended by the CM and to co-ordinate with the demolition requirements of the A&E Consultant in order to achieve a construction start as soon as the building is vacated.

1.2 Activities

- a. Visit the project site to review and verify existing conditions as reported by others.
- b. Attend project start up meeting and subsequent Project Team meetings; record and distribute meeting minutes where the EC is leading the meeting.
- c. Participate in partnering/team building sessions.
- d. Participate in a value engineering workshop, if required.
- e. Attend separate meetings with the DR, A&E Consultant and or the CM and its team to discuss project, establish a continuous line of communication, constructability review, implementation strategy and tender packages, schedules and cost implications and other issues that the A&E Consultant and CM may have. Those meetings may be combined with the team meetings.
- f. Confirm that all necessary pre-design documentation required for this Project is available and confirm that the information is still current and up-to-date. Notify the DR of any missing and /or out-of-date reports.
- g. Review and analyze the project requirements, schematic design report and all other documentation.
- h. Recommend areas of additional exploratory investigation that would assist in the preparation of construction documents including the advantages to proceeding with such openings, a budget cost and estimated schedule.
- i. Detail internal quality management processes that the EC will follow to ensure comprehensive and fully coordinated Services.
- j. Establish and report upon the geotechnical and environmental project risks, mitigation measures, assumptions with stakeholder advice and endorsement;
- k. Review and analyze project schedule and activity durations in section PD2.4. Identify critical milestones in project delivery.
- l. Review the cost plan and budget;

-
- m. Present summary of findings in written, drawn and visual presentation formats

1.3 Deliverables

Submit to the DR a work plan for the Services to be provided for the duration of this Contract. Revise as required by the DR. Resubmit for acceptance.

The work plan will consolidate the Scope and Activities identified above and will be utilized as the benchmark project control document to monitor progress of the project. The work plan will be used as a basis for monthly reporting of progress and will require amendments to reflect changes in Project parameters from time-to-time.

Key aspects to be included in the work plan are:

1.3.1 Executive Summary

The executive summary is intended to provide a précis of the report and outline any recommendations requiring PWGSC approval.

1.3.2 Schematic Design Review

Include, at a minimum, review and analysis of:

- a. Schematic design – gaps in abatement and or demolition scope.
- b. Geotechnical and subsurface conditions – all sub-disciplines
- c. Abatement and demolition
- d. Previous exploratory work and potential additional work
- e. Heritage areas

1.3.3 Heritage Protection, Demolition and Abatement

- a. Describe the abatement scope of work for each building block.
- b. Include protection of character-defining elements.
- c. In consultation with the A&E Consultant and CM, identify any additional exploratory openings or destructive testing requirements in order to accurately incorporate existing conditions into the demolition and abatement construction documents when they are developed.
- d. Coordinate with the A&E Consultant and CM to provide an implementation strategy and sequence of work for geotechnical and abatement in all areas of the building, paying particular attention to heritage protection and demolition, including temporary utilities required during demolition of existing base building systems.
- e. Coordinate and incorporate the demolition scope from the A&E Consultant into the geotechnical and abatement scope prepared by the EC.

1.3.4 Implementation Strategy

Aspects to be included, at a minimum, are a review and summary of the following:

- a. Multiple contract approach for construction;
- b. Coordinate with the A&E Consultant and CM to help define the temporary service requirements including security, fire protection, lighting and HVAC.
- c. Implementation plan for geotechnical and abatement work, in co-ordination with demolition.

1.3.5 Value Engineering

- a. Include all the recommendations and discuss how they will be addressed in the Project.

1.3.6 Time, Cost and Risk Analysis

Recommend cost plan and schedule modifications and outline risk implications and mitigation strategies as they relate to the geotechnical and abatement requirements:

1. Comment on the class "C" estimate,
2. Comment on the schedule including:
 - a. Written identification of the problems, conflicts or absence of information,
 - b. In depth review of the implementation strategy including multiple contracts,
 - c. Recommendations on revisions to milestone dates and schedule logic,
3. Project Schedule analysis as it relates to all EC Services and the services of others for verification that all milestone dates are achievable and logic is practical,
4. Prepare a detailed schedule for all EC Services including a dynamic, detailed record of tasks or activities that must be accomplished to satisfy project objectives. Included, but not limited to, the following activities:
 - a. EC services
 - b. PWGSC reviews and approvals,
 - c. Major elements/phases of work,
 - d. Relationship with work by others
 - e. Tendering,
 - f. Construction sequencing,
 - g. Ongoing air monitoring, quality assurance and acceptance in a phased construction approach,
 - h. Prepare separate detailed, critical path and milestone schedules,
 - i. Risk implications and potential mitigation strategies and
 - j. Prepare Time, Cost and Risk Analysis section of the Pre-Design Report.

1.3.7 Temporary Utilities

Identify, in consultation with the CM and A&E Consultant, temporary architectural, structural, mechanical, and communication, electrical and fire protection requirements related to the geotechnical and abatement tender packages and for the transitional periods between tender packages, including:

- a. Temporary heat and ventilation of the interior,
- b. Mechanical portion of temporary fire protection systems,
- c. Mechanical ancillary systems required to maintain electrical systems supporting the generator and other life safety equipment,
- d. Temporary structural supports,
- e. Fire protection during construction, and
- f. Removal of systems before and or after each phase of geotechnical or abatement work.

1.3.8 Rebuttal to PWGSC Quality Assurance Report

Aspects to be included, at a minimum:

- a. Review and analysis of comments provided by the PWGSC Project Team including the COE technical resources, the CM and the Client / User, and
- b. Written response to all comments provided by the above until the comments are resolved. Provide PWGSC final copy of response document.

RS2 DESIGN DEVELOPMENT

2.1 Intent

The EC must obtain written authorization from the DR before proceeding with Abatement Design Development. This stage will develop the design documents culminating in a complete set of construction documents. The Design Development documents consist of detailed scalable drawings and other documents to describe the scope for confirmation on areas requiring abatement, schedule, quality and cost of the Abatement project in sufficient detail to facilitate design approval, work with A&E Consultant to help identify code compliance in terms of building egress, detailed planning of construction and project approval. Developed designs are to be computer drawn.

It is expected that the CM will be actively involved during the design process and will provide constructability reviews that need to be addressed and incorporated into the abatement design. Continue analyzing the constructability of the project and advise on the construction phasing process and duration.

The EC will have started developing the construction documents for the abatement scope and coordinated with the A&E Consultant to obtain the abatement documents for seamless abatement and demolition packages for the CM to plan for tendering and construction.

The design development report to be completed by the EC will cover all site Base Building and Fit-up Abatement scope.

The report should be tailored to specifically address the design development items that are associated with the scope of work it addresses. The EC will be required to have certain aspects of the Design Development Report for environmental services approved by PWGSC prior to proceeding with the associated final construction documents.

2.2 Activities

- a. Obtain written approval from DR to proceed to Design Development Stage;
- b. Participate in partnering/team building sessions
- c. Participate in Value Engineering sessions, design charettes / workshops;
- d. Update quality management process that the EC will be following;
- e. Attend separate weekly meetings with the DR, A&E Consultant and/or CM and its team to discuss project details, ensure co-ordination between abatement and demolition documents, provide constructability reviews, implementation plan, tender packages, schedules and cost implications and other issues that the A&E and CM may require. Those meetings may be combined with the weekly team meetings.

2.3 Deliverables

The EC shall:

Prepare and submit a Design Development drawing and information package for review and approval by the DR. Revise as required by the DR. Resubmit for acceptance.

The Design Development Report shall include all services associated with the project in written narrative, drawings, sketches, graphic, and if appropriate, model (traditional and / or computer generated) form. Drawings and other media are to be used to communicate the entire site and building project for proposed work to a level of detail necessary to make all design decisions and to substantively estimate the cost of the project. Aspects to be included, at a minimum, are:

2.3.1 Executive Summary:

Provide an outline and recommendations for the scope of geotechnical and abatement work.

2.3.2 Regulatory Analysis:

Coordinate with A&E Consultant to help define:

- a. Detailed fire, life and health safety and accessibility strategy,
- b. Code consultant's report including requirements, strategies or interventions for protection of the building and future occupants,
- c. Detailed standards analysis, and
- d. Outcomes from preliminary meetings with Authorities Having Jurisdiction.

2.3.3 Heritage Protection and Abatement

To include as a minimum:

- a. Coordinate with A&E Consultant to follow the Conservation Guidelines regarding the protection of character-defining elements.
- b. Coordinate with A&E Consultant and CM to include protection and repairs to affected character-defining materials and assemblies, temporary removals and storage, and salvaging,
- c. Detail additional exploratory openings or destructive testing requirements in order to accurately incorporate existing conditions into the geotechnical and abatement Construction Documents when they are developed,
- d. Update the implementation strategy and sequence of work for all heritage protection and abatement including temporary utilities required during demolition of existing base building systems,
- e. Outline Consolidated Waste Inventory and Reduction Plan, and
- f. Coordinate and incorporate the demolition scope from the A&E Consultant into the geotechnical and abatement scope prepared by the EC.

2.3.4 Temporary Utilities

Coordinate with A&E Consultant and CM for the temporary architectural, structural, mechanical, and communication, electrical and fire protection requirements related to the geotechnical and abatement and demolition tender packages and for the transitional periods between tender packages.

2.3.5 Time, Cost and Risk Analysis as it relates to all Services:

The EC shall provide:

- a. Update to Risk Assessment Report,
- b. Description of contract packaging and implementation plan,
- c. Updates provided to the Cost and Time Consultants detailing critical path and milestone schedules, and
- d. Class 'B' Estimate.

2.4 Presentations:

The EC shall provide input to the A&E Consultant and CM for presentations and submissions for the 50% and 100% Design Development submissions.

2.5 Rebuttal:

The Consultant shall provide rebuttals to PWGSC Quality Assurance Report and Client/User and Construction Management Reviews. Aspects to be included, at a minimum, are:

- a. Review and analysis of comments provided by the Project Team, including the COE technical resource, the Client/User and the CM, and A&E Consultant
- b. Prepare and submit a written response to all comments provided by the above.

RS 3 CONSTRUCTION DOCUMENTS

Obtain written approval from PWGSC DR to proceed to Construction Document stage.

3.1 Intent

Prepare coordinated Construction Documents (CDs) for all geotechnical and abatement work setting forth in detail the requirements for the tender and construction.

Construction Documents will be issued by the CM for tendering the work to construction sub-trades. Priority shall be given to those packages related to early construction activities.

3.2 General

Activities are similar to all Construction Documents submissions. The degree of completeness for deliverables should reflect the advancement progress of each of the submissions listed below. Although each CD package will be released in sequence, the EC must ensure congruency between each of the packages.

Multiple (minimum five (5)) CD packages to be developed.

Prepare 66%, 99% and 100% CD submissions for drawings and specifications setting forth in detail the requirements for the construction.

- a. 66% indicates substantial technical development of the project - well advanced plans, elevations, sections, details, schedules and specifications. Include updated cost estimate
- b. 99% is the submission of complete construction documents ready for tender call. Include updated cost estimate.
- c. Pre-tender submission is the complete CD packages, ready for tender call by the CM. In consultation with the CM, prepare a final Class A estimate for each package.

Provide input to the construction schedule in coordination with the CM. Coordinate with A&E Consultant to deliver fully coordinate geotechnical and abatement tender packages with the A&E Consultant's scope of work. Prepare CDs and addenda in accordance with the specification brief.

3.3 Activities

3.3.1 General

- a. Confirm format of drawings and specifications in accordance with PWGSC standards,
- b. Participate in partnering/team building design workshops and value engineering sessions,
- c. Attend meetings record and distribute meeting minutes where the EC is leading the meeting,
- d. Develop, in collaboration with the CM and A&E Consultant, tender packages prioritization sequence to support phased construction,
- e. Clarify special procedures (*e.g.* phased construction and air monitoring requirements),
- f. Submit coordinated and integrated drawings and specifications at the identified stages (66%, 99% and 100%) for review and acceptance. Ensure coordination and integration with all submissions between all disciplines, especially the A&E Consultant demolition documents, prior to submission and submit letter confirming the co-ordination procedure used and testify that a detailed co-ordination of documents has been completed.
- g. Support an integrated design process,
- h. Update initial EC internal quality management process for the EC's team.
- i. Provide written response to all review comments, and incorporate these into Construction documents where required,
- j. Submit updated construction cost estimates and schedules as the project develops and with each submission. Explain variances with respect to previous versions,
- k. Submit and obtain approval on plans and specifications required by Authorities Having Jurisdiction before tender call,
- l. Provide updates required for the master project schedule, and
- m. Prepare a final Class 'A' estimate for the overall scope of work prepared by the EC. Review and approve materials and construction process specifications to meet sustainable development objectives.

3.3.2 Geotechnical and Abatement Design:

Coordinate the relevant disciplines to prepare complete discipline specific plans, elevations, sections, details and schedules to describe the abatement project for tender and permit processes. Development of the Project must include, but not limited to the following:

- a. Review A&E Consultant design documents and proposed demolition documents,
- b. Structural, mechanical, electrical, life safety intervention review,
- c. Review proposed interior including interior construction, stairs and interior finishes,
- d. Advise A&E Consultant and CM on requirement for temporary structures, partitions, protection, mechanical and electrical building systems, construction constraints and sequencing to separate early construction areas from occupied areas or those areas still under construction, and
- e. Review proposed impact on systems such as elevators, escalators, plumbing, HVAC, fire protection, electrical, telecommunications, building automation, security, etc.

3.3.4 Time, Cost and Risk Analysis as it relates to EC Services:

In collaboration with the entire Project Team, provide input to update the construction cost plan, schedules and outline risk implications and mitigation strategies:

Submit updates to cost estimate information, such as quantities, and updates to Construction Cost Plan with each Construction Document submission, for each tender package;

3.4 Deliverables

Provide 66%, 99%, and 100% CDs as prescribed throughout RS3.

3.4.1 Final Submission (100%):

- a. This submission incorporates all revisions required by the review of the 99% submission. Provide the following:
 - i. Complete set of originals of the working drawings, professionally stamped, signed, and sealed.
 - ii. Complete sets of original specifications.
 - iii. Class “A” estimate. The Class “A” cost estimate shall be submitted in trade cost breakdown format. Cost estimates shall have a summary plus full back-up showing items of work, quantities, unit prices, and amounts.
 - iv. Consolidated Waste Inventory and Reduction Plan.
- b. As a safeguard against loss or damage to the originals, retain a complete set of drawings in reproducible form and one copy of specification.
- c. Electronic true copy of the final submission drawings and specifications on one or multiple CD-ROM in accordance with section PA 1.5 - General Project Deliverables.
- d. Electronic version of addenda, where needed.
- e. CM Constructability Review
 - i. Summarize the issues, risks and comments.
 - ii. Discuss how they will be addressed in the project

3.4.2 Lessons Learned (at stages to be determined during project, 3 submissions maximum):

For each submission work with A&E Consultant to prepare a separate Lessons Learned document which will include:

- a. List current phase of project
- b. General subject heading
- c. Description of issue
- d. Brief summary of lessons learned

RS 4 TENDER CALL & CONSTRUCTION CONTRACT AWARD

4.1 Intent

The intent is to solicit and evaluate bids from qualified construction trade contractors / equipment suppliers and to award the contracts according to the requirements as outlined in the CM’s contract. It is anticipated that multiple construction packages will be tendered by the CM, based on project sequencing requirements, to select the various construction sub-trades.

4.2 Scope and Activities

4.2.1 Construction Tendering

The EC is required to provide support and advice to the DR during construction tender stage activities managed by the CM. While the CM will be the primary party responsible for evaluating bids for each

construction tender package, the EC may be asked to review and advise on procurement issues providing clarification or advisory Services related to each tender package.

For each construction tender package, the EC shall:

- a. Attend the bidder briefing meeting. The CM will advise on the timing of the meeting.
- b. Provide the DR and CM with written information and clarifications in response to questions from bidders.
- c. Prepare tender addenda as required, either based on questions arising from bidders briefing meetings, for issue to all bidders by the CM following review and approval by the DR and CM.
- d. Examine and report on any project impacts which may arise due to the issue of tender addenda with respect to construction cost estimates, risk allowances, and to construction schedule.
- e. Incorporate all addenda for each tender issuance into a consolidated construction document labeled "Issued for construction".

4.3 Deliverables

For each tender/procurement package, the EC shall provide:

- a. Originals of drawings and specifications, or Statements of Work, as well as electronic copies of drawings and specifications signed and stamped with professional seal,
- b. Addenda as required,
- c. Changes to the tender documents, if re-tendering is necessary,
- d. Summary of information required by Bidders to fully interpret the tender documents.
- e. Summary of addenda based on questions arising out of the Bidders Briefing Meeting and requests for clarification,
- f. Summary of cost and schedule impact created by issue of tender documents and addenda,
- g. Updated detailed, critical path and milestone Project Schedules,
- h. Revised Construction documents to bring the cost within the stipulated limits and/or for re-tendering purposes,
- i. Report upon risk implications and mitigation strategies, and
- j. For each tender package, "Issued for construction" documents incorporating all addenda during the bidding period.

RS 5 CONSTRUCTION AND CONTRACT ADMINISTRATION

5.1 Intent

The intent is to implement the Project in accordance with the Construction Documents and to direct, monitor and document all necessary or requested changes to the Project scope during geotechnical, subsurface and abatement work. The following services are required for each tender package.

5.2 Scope and Activities

5.2.1 Partnering -Team Building Sessions

The EC shall participate in partnering and team building sessions.

5.2.2 Updated Work Plan

The EC Services are to be continuously and effectively managed. Revise and update the EC work plan. Submit to the DR for approval. The updated work plan will be the control

document to manage and monitor EC Services throughout the demolition, abatement and construction. If necessary, revise the work plan during the construction.

5.2.2.1 General

- a. Coordinate and provide all Services on a continuous basis and advise and consult with the DR and other Project stakeholders.
- b. Prepare a communications protocol in consultation with the DR. Issue to Project Team.

5.2.2.2 Site Visits

- a. The EC shall conduct daily inspection services and air monitoring as and when required during geotechnical and abatement work. Ensure compliance with construction documents.
- b. Establish a written understanding with the A&E Consultant and CM as to what stages or aspect of the work are to be inspected prior to being covered up.
- c. Assess quality of work, compliance with the Consolidated Waste Inventory and Reduction Plan and identify in writing to the CM and to the Department the degree of compliance and all defects and deficiencies observed at time of such inspections.
- d. Any directions, clarifications or deficiency list shall be issued in writing to PWGSC and the CM.

5.2.2.3 Construction Meetings

- a. Immediately after award of each construction package, arrange and participate in a construction briefing meeting with the successful construction sub-trade, the CM, and the DR. Ensure participation from all pertinent specialist sub-consultant disciplines.
- b. The CM will prepare minutes of construction briefing meetings and distribute copies to all participants and to other persons agreed upon with the DR.
- c. Participate in a minimum of sixty-five (65) construction progress meetings, commencing with the construction briefing meeting. The meetings will be chaired by the CM, and will typically include the main A&E Consultant, sub-contractors, the EC and its specialist sub-consultant disciplines, the DR, and various other PWGSC representatives. The DR may invite other project Stakeholders to attend any of these meetings as necessary. Minutes of these meetings will be prepared and distributed by the CM.

5.2.2.4 Project Schedule

- a. Review the CM's construction schedule as it relates to geotechnical and abatement and provide comments relating to the tasks, durations, and sequence of work. Submit a correspondence to the DR, demonstrating that a detailed review of the schedule has been completed.
- b. Monitor the CM's construction schedule daily during geotechnical and abatement work, take necessary steps to ensure the schedule is maintained. Submit a detailed report to the DR noting particular activities at risk of being delayed.
- c. Keep accurate Site records noting causes of construction delays on Site, as well as the actual amount of construction personnel and equipment down time resulting from delays. Submit to DR weekly.
- d. Make every effort to assist the CM in avoiding delays.

5.2.2.5 Construction documents

- a. Carry out the review of the work daily to determine if the work is in conformity with the Construction Documents.
- b. Submit progress and deficiency reports on a weekly basis.
- c. Interpret the requirements of the Construction Documents and make findings as to the performance by the sub-contractors.
- d. Meet with the CM and construction sub-trades to resolve construction implementation and coordination issues.
- e. Render interpretation in writing and graphic form as required within one (1) day on the written request of either the DR or the CM. A maximum of five (5) working days will be tolerated for EC response to CM Request for Information. RFI's identified as critical to the project schedule shall be responded to within one (1) working day.
- f. Render written findings within a reasonable time on all claims, disputes and other matters in question between PWGSC and the CM relating to the execution or performance of the work or the interpretation of the Construction documents.
- g. Render interpretation and findings consistent with the intent of and reasonably inferable from the Construction documents.

5.2.2.6 Inspection

- a. The EC shall have the authority to reject work which does not conform to the Construction Documents. Whenever, in the EC's opinion, it is necessary or advisable for the implementation of the intent of the Construction Documents, the EC shall require special inspection or testing of work.
- b. The EC shall have the authority to order minor adjustments in the work which are consistent with the intent of the Construction Documents, when these do not involve an adjustment in the construction contract prices and or an extension of the construction contract durations.

5.2.2.7 Supplemental Instructions

- a. Furnish supplemental instructions to the sub-contractors with reasonable promptness or in accordance with a schedule for such instructions agreed to by the DR and the CM.
- b. Keep the DR 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.
- c. Determine the amounts owing to the CM based on the progress of the work and certify payments to the CM as it relates to environmental services.

5.2.2.8 Change Control

- a. The EC does not have authority to change the work or the price of any Contract(s).
- b. Changes which affect cost or design concept must be approved by the DR.
- c. Through the CM, obtain detailed quotations from the sub-contractors. Review prices and promptly forward recommendations to the CM and DR. Engage in direct discussion with the CM and/or the sub-trades involved to obtain clarification on submitted pricing if required.
- d. All changes, including those not affecting the cost of the Project, must be covered by Change Orders.
- e. Utilize the PWGSC change control process for scope change, site condition change, client driven change and design driven change. Coordinate all changes with the A&E Consultant

and the CM. Identify and track type of change as one of: Site condition, client requested, design condition on each submitted CCN. DR may disagree with the chosen type of change and has the option to advise that a change may be a different type than that chosen by the EC. An estimate for each submitted CCN shall be provided by the EC upon issuance of the CCN.

- f. Advise the DR of all potential changes to scope for the duration of the implementation.
- g. Provide project delay analysis where appropriate.
- h. Utilizing the established change control process and software, prepare Contemplated Change Notices (CCN) and Change Orders (CO), verify quantities, and provide justification for approval and signature by the DR in accordance with the Construction documents.
- i. Review the Contractor's submittals within five (5) working days; prioritize review and processing to ensure the Project Schedule is maintained.
- j. Provide cost planning and estimating advice during construction.
- k. Assess/analyze time impact of all proposed changes, advise the DR and CM of impact analysis.
- l. Indicate any changes or material/equipment, work methodology or substitutions on Record Documents.
- m. When CCN is to be issued based on unit prices, keep accurate account of the work, recording dimensions, quantities and work durations, etc.

5.2.2.9 Project Close Out - for each tender package

- a. Prepare Certificates of Substantial Performance and Certificates of Completion.

5.2.2.10 Inspection and Testing

- a. Provide the DR with specified and recommended list of tests to be undertaken, to ensure successful Completion of the work.
- b. Review all test reports and take necessary action with the CM when work fails to comply with contract.
- c. Immediately notify the DR and CM when tests fail to meet Project requirements and when corrective work will affect schedule.

5.2.2.11 Construction Progress Claims

- a. Each month the CM submits a progress claim (request for progress payment) for work and materials as per the requirements of the Construction Documents.
- b. Review progress draw request in detail and discuss with the CM and sub-contractor, where appropriate, to confirm level of work claimed as complete. Submit to DR, copying CM, all concerns with the claimed levels of completion. Discuss directly with the CM and sub-contractor and come to agreement on any items of disagreement. Provide CM and DR with certification of work completed to date.
- c. Verify at each progress payment that sub-contractors have accurately recorded information on the site as-built set of Construction Documents.
- d. The claims are made by completing the following PWGSC forms where applicable:
 - i. Request for Progress Payment.
 - ii. Cost Breakdown.
 - iii. Statutory Declaration.
- e. Submit with each progress claim:
 - i. Updated schedule of the progress of the work.

-
- ii. Detailed photographs of the progress of the work.

5.2.2.12 Materials On Site

- a. The CM and its sub-contractors may claim for payment of material on site but not yet incorporated in work.
- b. Material must be stored in a secure place designated by the DR.
- c. The EC shall check and verify a detailed list of materials with supplier's invoice showing price of each item which must accompany claim.
- d. Items shall be listed separately on progress payment forms after the break-down list and total.
- e. As material is incorporated in the work, the cost of this material must be added to the appropriate breakdown list and removed from the material list.

5.2.2.13 Interim Inspection

- a. The EC shall coordinate with the DR and CM to monitor, inspect and report on the progress of deficiencies corrections.

5.2.2.14 Substantial Completion

- a. The DR will formally issue the official Certificate of Substantial Performance forms (formerly called Interim Certificate of Completion) to the CM.
- b. Multiple "partial" Certificates of Substantial Performance will be issued to reflect the phased project implementation approach.
- c. Prior to the issuance of each Certificate of Substantial Performance, obtain as-built marked-up drawings from the CM. Provide a copy to the DR.
- d. Payment requires completion and signing, by the parties concerned, of the following documents:
 - i. Certificate of Substantial Performance – PWGSC form 1796.
 - ii. Statutory Declaration – PWGSC form 2835.
 - iii. Other submittals required to support the progress claim are:
 - 1. Workman's Compensation Clearance Certificate.
 - 2. Contractor's Invoice.
 - 3. Certificates or written approval from AHJs such as City of Ottawa, Electrical Safety Authority, TSSA, etc.
- e. Verify that all items are correctly stated and ensure that completed documents and any supporting documents are furnished to the DR for processing.

5.2.2.15 Final Inspection

- a. Inform the DR when satisfied that all work related to this Contract has been completed, including the deficiency items at all agreed completion points.
- b. PWGSC reconvenes the Acceptance Board which makes a final inspection of the project. If everything is satisfactory the Board issues interim and final acceptance of the project to the sub-contractors.

5.2.2.16 Final Completion

Completion of the geotechnical and abatement phases of the Project is established by the official Certificate of Completion forms (formerly called Final Certificate of Completion). The DR will formally issue these forms to the CM.

- a. The final payment requires completion and signing, by the parties concerned, of the following documents:
 - i. All Project Record Drawings and specifications as required in section 5.1.2.18 below.
 - ii. Certificate of Completion (Final) – PWGSC form 1797.
 - iii. Statutory Declaration - PWGSC form 2835.
 - iv. Other submittals required to support the progress claim are:
 1. Contractor's Invoice
 2. Cost Breakdown.
 3. Workmen's Compensation Clearance Certificate
 4. Submission of all project submittals including but not limited to reports and as-built drawings.
- b. Verify that all items are correctly stated and ensure that completed documents and any supporting documents are furnished to the DR for processing.

5.2.2.17 As-Built and Record Drawings and As-Built Specifications

As the project will have multiple tender packages, ensure compliance to the following:

- a. Check and verify sub-contractor as-built records for completeness and accuracy.
- b. Obtain from the CM and the sub-contractors all modification/updates to as-built records from Substantial Completion to Final Completion.
- c. Show deviations in construction from the original Construction documents including changes resulting from Change Orders or from Site Instructions.
- d. Produce Record Drawings and specifications, incorporating final as-built information into project drawings.
- e. Provide a complete set of final shop drawings in hard copy and electronic format.
- f. Submit a comprehensive consolidated final package of Record Drawings and As-Built Specifications within twelve (12) weeks of issuance of the Certificate of Completion.

5.2.2.18 Updated Designated Substance Survey Report

- a. After completion of the AD work, prepare and submit an updated Designated Substance Survey Report to detail the location of all remaining known and unknown hazardous substances within, under or adjacent to the building. Unknown areas will include areas of the building where demolition work was not undertaken. The updated report will be used by PWGSC for ongoing building management after the Completion of the Project.
- b. Include as an annex to the updated Designated Substance Survey Report appropriate hazardous materials abatement and handling specifications.

5.3 Deliverables

The EC shall prepare, consolidate and submit the following:

- a. Updated work plan for all Services to be provided during the demolition, abatement and construction phases of the Project.
- b. Written reports from site visits including persons involved.
- c. Weekly and monthly written reports on the progress of the work and cost of construction, including updated as-built records.
- d. Provide cost and scheduling reports with updates at the end of each month.
- e. Provide additional detail drawings when required to clarify, interpret or supplement the Construction Documents.

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- f. Written Site Instructions.
 - g. Copies of reviewed shop drawings
 - h. Certificates of Substantial Performance and Certificates of Completion including respective reviews and acceptances.
 - i. Certified and dated testing results.
 - j. EC record drawings and updated specifications based on the as-built marked-up drawings obtained from sub-contractors.
 - k. Warranty deficiency list.
 - l. Final Warranty Review and Report.
 - m. Post-Construction Evaluation.
 - n. Updated Designated Substance Survey Report and related specifications.

RS6 ENVIRONMENTAL MONITORING SERVICES

6.1 Intent:

This section must be read in the context and mandate of the EC contained within all other parts of this Project Brief. While most of these Services will be provided during the implementation of RS5 – Construction Contract Administration, the requisite planning to provide the Services of this section must be considered from the start of the Project.

Provide Services for collection and analysis of bulk sampling of materials, air monitoring, and specialized advisory Services as it relates to the designated substances within the building. These Services will be required on an ongoing daily basis during demolition work and abatement of hazardous materials.

6.2 Scope and Activities:

The EC shall:

- a. Plan and coordinate all Type 1, Type 2 and Type 3 asbestos and lead based paint removal operations. Prepare appropriate work plans and contract specification for the implementation of hazardous materials work.
- b. Visit the Site to confirm details of all designated substance related work with DR and CM.
- c. Participate in pre-contamination kick-off meetings with the CM to verbally communicate intent and scope of abatement activities.
- d. Provide full time on-Site presence for the duration of the geotechnical and abatement work. The work shall be carried out in accordance with the specifications and drawings.
- e. Provide real time air monitoring and assessment Services during removal of hazardous materials.
- f. Report air-monitoring results within 24-hours of sample collection, with results posted on site in accordance with prescribed regulations. Advise the DR and CM in writing immediately any conditions where the air monitoring indicates a health risk to unprotected building occupants or construction personnel.
- g. Provide daily site visit reports for all site visits. Reports shall include detailed project information, work-site observations, working in asbestos and hazardous substances work areas, and all contract information necessary for document tracking.
- h. Provide hazardous material bulk sampling and analyses for materials discovered during the implementation of hazardous materials work.

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- i. Attend construction meetings to discuss sampling or monitoring issues as required throughout the geotechnical and abatement work.

6.3 Testing

Requests for testing shall be pre-authorized by the DR only, except for emergency response situations noted below.

6.3.1 Transmission Electron Microscopy

Perform Transmission Electron Microscopy (TEM) verification analysis of any Phase Contrast Microscopy (PCM) air sample taken during the implementation of the work. A TEM verification analysis would normally occur due to occupant-worker concern or due to elevated airborne fiber concentrations noted during PCM sampling.

6.3.2 Polarized Light Microscopy

Perform Polarized Light Microscopy (PLM) to determine if building materials contain asbestos. Results will be used to determine appropriate abatement methodologies. The requirement for PLM analysis may arise if previously non-sampled materials are revealed during demolition/abatement activities.

6.3.3 Emergency Situations

Provide Services for emergency response to the Site. Perform PCM, TEM and or PLM sampling as required. Emergency response situations are related to sudden building systems failures that may require immediate action to save building elements from damage or destruction or to prevent human health and safety risks related to potential contamination. A response protocol must be developed collaboratively by the EC, CM and DR prior to the commencement of demolition or abatement work.

6.3.4 Air and Material Sampling

For all PCM, TEM or PLM air sampling, provide at least two (2) blank field cassettes for laboratory analysis or ten percent (10%) of the total samples taken, whichever is greater. Each day following a Site visit or the collection of air samples, provide a written report that includes all findings. Submit to the DR and CM.

Ensure that an accredited operator analyzes all collected air and material samples. Use calibrated air sampling equipment only. Provide records of regular equipment calibration and proper equipment maintenance. Testing equipment shall remain at the Site. Logbooks for calibrations and calibration of testing equipment shall be provided at the EC's expense.

6.3.5 Laboratory Services

Provide and maintain an on-Site laboratory to perform local testing utilizing standard testing equipment only. Testing which requires specialty equipment shall be performed at off-site laboratories. Turn-around time for off-site testing shall be agreed upon at the beginning of the work based on the most expeditious method to receive test results without impeding the advancement of the Project.

6.3.6 Secure Storage Space

The CM shall provide secure storage space for air sampling equipment and materials on-site at no cost to the EC.

6.4 Deliverables

The EC shall provide:

- a. Work plans and contract specifications for hazardous materials work;
- b. Emergency response protocol for all Project stakeholders;
- c. Equipment calibration reports;
- d. Test results on a daily basis; and
- e. Daily reports.

RS7 GEOTECHNICAL ENGINEERING SERVICES

7.1 Intent:

This section must be read in the context and mandate contained of the EC within all other parts of this Project Brief. Provide comprehensive geotechnical and subsurface engineering Services to meet the requirements of the Project. On a continual basis, coordinate and integrate these Required Services with those of the A&E Consultant and the CM to ensure seamless Project delivery.

7.2 Scope and Activities:

Provide the following detailed geotechnical engineering Services and investigations based on the preliminary schematic design information and the reference reports appended to this Project Brief. The geotechnical engineer shall:

- a. Review all existing reports and provide comments in writing to the DR on the completeness of preliminary analysis. Review of Schematic Design prepared by others to determine suitability and provide recommendations. Provide further geotechnical investigation if the existing reports do not offer sufficient information
- b. Establish safe excavation methods in rocks and soils considering effects of vibrations deformation and stress change on surrounding buildings.
- c. Determine safe vibration criteria for various methods of rock excavation and provide recommendations for vibration monitoring program during construction.
- d. Secure storage and chain of custody documentation for rock samples recovered during field exploration program and maintaining this storage until Final Completion of the Project, after which disposing them as directed by the Departmental Representative.
- e. Estimate the geometry of the present bedrock surface taking into account all previous
- f. Assess and report on subsurface rock and soil contamination for the safe handling by the CM.

7.3 General

The geotechnical engineer shall:

- a. Determine design parameters to be used for rock anchor design, backfill and loads on walls, rock excavation slopes for foundation pre-support and underpinning. Include backfill material and construction methodology recommendations. Detail horizontal static and seismic loads on the foundation walls from backfill and rock.
- b. Provide requirements for stable rock excavation, including sequencing, underpinning, pre-support, and rock reinforcement.
- c. Provide the requirements for the recovery and physical testing of samples to development of soil/rock parameters for the A&E Consultant's design.

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- d. Field investigation of existing buildings and structures including surveys of existing construction and adjacent buildings
 - e. Liaise with Project stakeholders to identify foundation loading conditions and viable geotechnical and subsurface related options.
 - f. Review and analyze the design of adjacent structures in terms of shoring, bracing, excavation and underpinning.
 - g. Provide Construction Documents for drainage, foundation measures, safe slopes and shoring requirements. Provide details as required where unusual soil, bedrock or groundwater conditions exist and where specialized construction processes are necessary.
 - h. Review the CM's methods, procedures and use of construction equipment with respect to the effect on the Project.
 - i. Monitor continuously all geotechnical and subsurface aspects of the work undertaken by the CM to ensure compliance with the design. Observation, testing and the related reports are required to complete the Letters of Assurance to the City of Ottawa.
 - j. Attend Site meetings.
 - k. Resolve geotechnical and subsurface issues in coordination with the CM and A&E Consultant. Issue Site Instructions to resolve each issue within one (1) day of identifying the issue.
 - l. Provide weekly Site reports to the DR and the CM.
 - m. Provide other related geotechnical and subsurface engineering Services related to the Project.

7.4 Deliverables:

The geotechnical engineer shall provide:

- a. Gap analysis report between existing reference information and the planned work;
- b. Criteria and related analysis for all geotechnical and subsurface design requirements;
- c. Design criteria for the A&E Consultant and compliance of the A&E Consultant with the stipulated criteria;
- d. Construction Documents with detailed work methodologies for removal of all subsurface elements;
- e. Site review and related reports on construction implementation compliance;
- f. Site Instructions and other documents related to RS5;
- g. Letters of Assurance to the City of Ottawa;
- h. Other deliverables related to this Project.