



Public Works and Government Services Canada
ATB Place North Tower
10025 Jasper Ave./10025 ave. Jaspe
5th floor/5e étage
Edmonton
Alberta
T5J 1S6
Bid Fax: (780) 497-3510

Offre à commandes individuelle du département(OCID)

Comments - Commentaires

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

Public Works and Government Services Canada
ATB Place North Tower
10025 Jasper Ave./10025 ave Jasper
5th floor/5e étage
Edmonton
Alberta
T5J 1S6

Title - Sujet Building Condition Reports	
Solicitation No. - N° de l'invitation EW003-173064/A	Date 2017-03-10
Client Reference No. - N° de référence du client EW003-173064	GETS Ref. No. - N° de réf. de SEAG PW-\$PWU-909-11030
File No. - N° de dossier PWU-6-39341 (909)	CCC No./N° CCC - FMS No./N° VME
Solicitation Closes - L'invitation prend fin at - à 02:00 PM on - le 2017-04-25	Time Zone Fuseau horaire Mountain Daylight Saving Time MDT
Delivery Required - Livraison exigée See Herein	
Address Enquiries to: - Adresser toutes questions à: Mayhew (RPC), Sylvia	Buyer Id - Id de l'acheteur pww909
Telephone No. - N° de téléphone (780)497-3645 ()	FAX No. - N° de FAX (780)497-3510
Destination - of Goods, Services, and Construction: Destination - des biens, services et construction: DEPARTMENT OF PUBLIC WORKS AND GOVERNMENT SERVICES CANADA VARIOUS LOCATIONS WITHIN MANITOBA, SASKATCHEWAN AND ALBERTA	
Security - Sécurité This request for a Standing Offer does not include provisions for security. Cette Demande d'offre à commandes ne comprend pas des dispositions en matière de sécurité.	

Instructions: Voir aux présentes

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

Solicitation No. – N° de l'invitation

Amd. No. - N° de la modif.

Buyer ID - Id de l'acheteur

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

File No. - N° du dossier

CCC No./N° CCC - FMS No./N° VME

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Where “Consultant” appears in this bid solicitation and the resulting Standing Offer and Call-Ups, this means “Offeror” and “Contractor” in the context of the Terms, Conditions and Instructions

BUILDING CONDITION REPORTS

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SUPPLEMENTARY INSTRUCTIONS TO PROPONENTS (SI)

SI 1 Integrity Provisions – Declaration of Convicted Offences

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

SI 2 Federal Contractors Program for Employment Equity - Certification

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

Canada will have the right to declare a proposal non-responsive, or to set-aside a Standing Offer, 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 issuing of a Standing Offer or during the period of the Standing Offer.

SI 3 Security Requirements

Proponents are hereby informed that there is a strong possibility that some call-ups against the Standing Offers might require that the consultants and their personnel possesses a Facility Security Clearance (FSC) at the SECRET level issued by the Canadian Industrial Security Directorate (CISD) of Public Works and Government Services Canada (PWGSC).

Should the successful proponents not have the level of security indicated above, PWGSC shall sponsor the successful proponents to allow CISD to initiate procedures for security clearance. CISD, by letter, shall forward documentation to the successful proponents for completion.

Proponents desiring such sponsorship should so indicate in their covering letter with their proposal.

Successful proponent(s) issued a standing offer as a result of this RFSO, not possessing the required security clearance at time of call up, will be bypassed and PWGSC will proceed to the next consultant who possesses the required security clearance and it is furthest away from the ideal business distribution. Refer to the Standing Offer Particulars for information regarding ideal business distribution.

GENERAL INSTRUCTIONS TO PROPONENTS (GI)

Integrity Provisions – Proposal

1. The *Ineligibility and Suspension Policy* (the “Policy”) in effect on the date the Request for Standing Offers (RFSO) is issued, and all related Directives in effect on that date, are incorporated by reference into, and form a binding part of the RFSO. The Proponent must comply with the Policy and Directives, which can be found at <http://www.tpsgc-pwgsc.gc.ca/ci-if/politique-policy-eng.html>.
2. Under the Policy, charges and convictions of certain offences against a Supplier, its affiliates or first tier sub-consultants, and other circumstances, will or may result in a determination by Public Works and Government Services Canada (PWGSC) that the Supplier is ineligible to be issued or is suspended from being issued a standing offer and to enter into a contract with Canada. The list of ineligible and suspended Suppliers is contained in PWGSC's Integrity Database. The Policy describes how enquiries can be made regarding the ineligibility or suspension of Suppliers.
3. In addition to all other information required in the Request for Standing Offers, the Proponent must provide the following:
 - a. by the time stated in the Policy, all information required by the Policy described under the heading “Information to be Provided when Bidding, Contracting or Entering into a Real Property Agreement”; and
 - b. with its bid, a complete list of all foreign criminal charges and convictions pertaining to itself, its affiliates and its proposed first tier sub-consultants that, to the best of its knowledge and belief, may be similar to one of the listed offences in the Policy. The list of foreign criminal charges and convictions must be submitted using an Integrity Declaration Form, which can be found at <http://www.tpsgc-pwgsc.gc.ca/ci-if/declaration-eng.html>.
4. Subject to subsection 5, by submitting a bid in response to this Request for Standing Offers, the Proponent certifies that:
 - a. it has read and understands the [Ineligibility and Suspension Policy](http://www.tpsgc-pwgsc.gc.ca/ci-if/politique-policy-eng.html);
 - b. it understands that certain domestic and foreign criminal charges and convictions, and other circumstances, as described in the Policy, will or may result in a determination of ineligibility or suspension under the Policy;
 - c. it is aware that Canada may request additional information, certifications, and validations from the Proponent or a third party for purposes of making a determination of ineligibility or suspension;
 - d. it has provided with its bid a complete list of all foreign criminal charges and convictions pertaining to itself, its affiliates and its proposed first tier sub-consultants that, to the best of its knowledge and belief, may be similar to one of the listed offences in the Policy;
 - e. none of the domestic criminal offences, and other circumstances, described in the Policy that will or may result in a determination of ineligibility or suspension, apply to it, its affiliates and its proposed first tier sub-consultants; and

- f. it is not aware of a determination of ineligibility or suspension issued by PWGSC that applies to it.
5. Where a Proponent is unable to provide any of the certifications required by subsection 4, it must submit with its bid a completed Integrity Declaration Form, which can be found at <http://www.tpsgc-pwgsc.gc.ca/ci-if/declaration-eng.html>.
6. Canada will declare non-responsive any bid in respect of which the information requested is incomplete or inaccurate, or in respect of which the information contained in a certification or declaration is found by Canada to be false or misleading in any respect. If Canada establishes after issuance of the Standing Offer that the Proponent provided a false or misleading certification or declaration, Canada may set aside the Standing Offer and terminate for default any resulting contracts. Pursuant to the Policy, Canada may also determine the Proponent to be ineligible for issuance of a standing offer for providing a false or misleading certification or declaration.

GI 1 Definitions

In this Request for Standing Offers (RFSO), the following words or phrases have the corresponding meaning.

"Applicable Taxes":

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

"Consultant Team":

The team of consultants, specialists and subconsultants, including the Proponent, proposed by the Proponent to perform the services required.

"Key Personnel":

Staff of the Proponent, subconsultants and specialists proposed to be assigned to this project.

"Price Rating":

A rating assigned to the price component of a proposal and subsequently used to establish a Price Score for inclusion as a percentage of the total score to be established following the evaluation and rating of technical proposals.

"Proponent":

"Proponent" means the person or entity (or, in the case of a joint venture, the persons or entities) submitting a proposal to provide services under a call-up resulting from a standing offer. It does not include the parent, subsidiaries or other affiliates of the Proponent, or its sub-consultants.

"PWGSC Evaluation Board":

The board established to evaluate and rate proposals. Board members represent a broad cross-section of professional qualifications and experience.

"Technical Rating":

A rating assigned to the technical component of a proposal in the selection procedure and subsequently used to establish a Technical Score for inclusion as a percentage of the total score.

GI 2 Introduction

1. Public Works and Government Services Canada (PWGSC) is inviting consulting firms with Architectural or Engineering expertise to submit proposals for Standing Offers. The selected consultants shall provide a range of services as identified in the Required Services section of this document for building projects in the Western Region.

Geographic Zones and area boundaries are as follows and will be such each time they appear in this Request for Standing Offer (RFSO) described:

- Northern Alberta covers the area north of Red Deer, AB;
 - Southern Alberta covers the area of Red Deer and south;
 - Northern Saskatchewan covers the area north of Davidson, SK;
 - Southern Saskatchewan covers the area of Davidson and south; and
 - Manitoba is all of Manitoba
2. Proponents shall be licensed or eligible to be licensed to practise in the province governing each applicable zone or zones (i.e. Alberta, Saskatchewan and/or Manitoba. If a Proponent is licensed to practise in only one of the three provinces, then that Proponent must be eligible and willing to be licensed in the province in which they are not licensed. Firms should be able to demonstrate successful delivery of these services for a broad variety of projects over the last seven (7) years. In general, the firm and its personnel will be evaluated on the basis of their demonstrated understanding of the scope of services, their approach and methodology to providing those services, the quality of their relevant experience in this area, as well as the cost of the provision of the services.
 3. It is PWGSC's intention to authorize up to fifteen (15) Standing Offers, three (3) in each zone, Northern and Southern Alberta, Northern and Southern Saskatchewan, and Manitoba, each for a period of three (3) years, plus an option for an additional one (1) year option period, from the date of issuing the Standing Offers. The total dollar value of all Standing Offers is estimated to be \$15,000,000.00 (Applicable Taxes and all related disbursements included). Individual call-ups will vary, up to a maximum of \$500,000.00. The call-up limitation includes fees and all related disbursements and applicable Taxes. Proponents should note that there is no guarantee that the full or any amount of the Standing Offers will be called-up; PWGSC will issue call-ups only when the specific services to be provided under the Standing Offer are needed. Refer to Section SP5, Call-Up Procedure.
 4. The total dollar value of will be distributed across five (5) Western Region Zones, in the following amounts:
 - Northern Alberta \$2,000,000.00
 - Southern Alberta \$3,000,000.00
 - Northern Saskatchewan \$2,500,000.00
 - Southern Saskatchewan \$3,500,000.00
 - Manitoba \$4,000,000.00
 - **Total: \$15,000,000.00**

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5. Funding will be distributed between the top firms for each zone as follows:
 - Where 3 Standing Offers are authorized - 42% for the top ranked firm, 33% for the 2nd, 25% for the 3rd.
 - Where 2 Standing Offers are authorized - 55% for the top ranked firm, 45% for the 2nd
 - Where 1 Standing Offer is authorized - 100% for the top ranked firm.
6. This procurement is subject to the provisions of the North American Free Trade Agreement (NAFTA) and World Trade Organization - Agreement on Government Procurement (WTO-AGP).

GI 3 Procurement Business Number

Proponents are required to have a Procurement Business Number (PBN) before issuance of a standing offer. Proponents may register for a PBN on line at Supplier Registration Information (<https://srisupplier.contractsCanada.gc.ca/>). For non-Internet registration, proponents may contact the InfoLine at 1-800-811-1148 to obtain the telephone number of the nearest Supplier Registration Agent.

GI 4 Contracting Authority and Departmental Representative

1. The Contracting Authority for this Request for Standing Offer is:

Public Works and Government Services Canada
Real Property Contracting Directorate
ATB Place, North Tower
5th Floor, 10025 Jasper Avenue
Edmonton, Alberta T5J 1S6
Sylvia Mayhew
Title: Procurement Specialist
Telephone: 780-497-3645
Facsimile: 780-4973510
Email: sylvia.mayhew@pwgsc-tpsgc.gc.ca
2. The Contracting Authority is responsible for the establishment of the Standing Offer, its administration, and any contractual issues relating to individual call-ups.
3. A Departmental Representative will be identified at time of each individual Call-Up.
4. The Departmental Representative will be responsible for all matters concerning the technical content of the work under the Call-Up.

GI 5 Quantity

The level of services and estimated expenditure specified in the Request for Standing Offer are only an approximation of requirements given in good faith. The making of a proposal by the Proponent shall not constitute an agreement by Canada. Canada may make one or several call-ups against a standing offer.

GI 6 PWGSC Obligation

A Request for Standing Offer does not commit PWGSC to authorize the utilization of a standing offer or to pay any cost incurred in the submission of proposals, or cost incurred in making necessary studies for the preparation thereof, or to procure or contract for any services. PWGSC reserves the right to reject or authorize for utilization any proposal in whole or in part, with or without further discussion or negotiation. Canada reserves the right to cancel or amend the Request for Standing Offer at any time.

GI 7 Responsive Proposals

To be considered responsive, a proposal must meet all of the mandatory requirements set out in the Request for Standing Offer. No further consideration in the selection procedure will be given to a Proponent submitting a non-responsive proposal. Proponents that submitted non-responsive proposals are notified accordingly.

GI 8 Communications - Solicitation Period

1. Questions or requests for clarification during the solicitation period must be submitted in writing to the Contracting Authority named on the Request for Standing Offer - Page 1 as early as possible. **Enquiries should be received no later than ten (10) working days prior to the closing date identified on the front page of the Request for Standing Offer** Enquiries received after that time may not be answered.
2. To ensure the integrity of the competitive bid process, enquiries and other communications regarding the RFSO must be directed only to the Contracting Authority identified in the RFSO. Failure to comply with this requirement may result in the proposal being declared non-responsive.
3. To ensure consistency and quality of information provided to proponents, significant enquiries received and their replies will be posted on the Government Electronic Tendering Service (GETS).

GI 9 Overview of Selection Process

1. The Standing Offer selection process is as follows:
 - a) a Request for Standing Offer is obtained by proponents through the GETS;
 - b) in response to the Request for Standing Offer, interested proponents shall submit their proposals using a "two-envelope" procedure, in which proponents submit the "technical" component of their proposal in one envelope and the proposed price of the services (price proposal) in a second envelope as further described in GI 10.3 below;
 - c) responsive proposals are reviewed, evaluated and rated by a PWGSC Evaluation Board in accordance with the criteria, components and weight factors set out in the Request for Standing Offer;
 - d) PWGSC may issue a standing offer to the successful proponents;

- e) Proponents are notified of the results within one week after PWGSC has entered into a standing offer arrangement with the successful proponents.

GI 10 Submission of Proposal

1. Canada requires that each proposal, at closing date and time or upon request from the Contracting Authority, be signed by the Proponent or by an authorized representative of the Proponent. If a proposal is submitted by a joint venture, it must be in accordance with section GI18.
2. It is the Proponent's responsibility to:
 - a) obtain clarification of the requirements contained in the Request for Standing Offer, if necessary, before submitting a proposal;
 - b) submit an original of the proposal plus the specified number of copies, duly completed, IN THE FORMAT REQUESTED, on or before the closing date and time set for receipt of proposals;
 - c) send its proposal only to Public Works and Government Services Canada (PWGSC) Bid Receiving Unit specified on page 1 of the Request for Standing Offer or to the address specified in the Request for Standing Offer;
 - d) ensure that the Proponent's name, return address, the solicitation number and description, and solicitation closing date and time are clearly visible on the envelope or the parcel(s) containing the proposal; and
 - e) provide a comprehensive and sufficiently detailed proposal that will permit a complete evaluation in accordance with the criteria set out in the Request for Standing Offer.
3. The technical and price components of the proposal must be submitted in separate, easily identified envelopes in accordance with the instructions contained in the proposal document. Both envelopes shall be submitted as one package which shall clearly and conspicuously display and indicate on the outside of the package the information identified in paragraph 2. d) above.
4. Timely and correct delivery of proposals to the office designated for receipt of proposals is the sole responsibility of the Proponent. Public Works and Government Services Canada will not assume or have transferred to it those responsibilities. All risks and consequences of incorrect delivery of proposals are the responsibility of the Proponent.
5. The evaluation of proposals may result in authorization to utilize one or more Standing Offers in whole or in part, taking into consideration the evaluation criteria and selection method stated herein. The lowest or any proposal will not necessarily be authorized. In case of error in the calculation of prices, the unit prices will govern.
6. The proposal should completely and thoroughly address each element of the requirements as enumerated in the Request for Standing Offer. It is also essential that the elements contained in the proposal be stated in a clear and concise manner.

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7. Proposal documents and supporting information may be submitted in either English or French.
 8. Canada will make available Notices of Proposed Procurement (NPP), RFSOs and related documents for download through the Government Electronic Tendering Service (GETS). Canada is not responsible and will not assume any liabilities whatsoever for the information found on websites of third parties. In the event an NPP, RFSO or related documentation would be amended, Canada will not be sending notifications. Canada will post all amendments using GETS. It is the sole responsibility of the Proponent to regularly consult GETS for the most up-to-date information. Canada will not be liable for any oversight on the Proponent's part nor for notification services offered by a third party.

GI 11 Non-Acceptance of Electronically Transmitted Proposals

Due to the nature of this solicitation, a complete technical proposal, as well as a cost of services proposal (submitted under separate cover), with supporting information is required to allow a proper evaluation to be conducted. Electronic transmission of the proposal by such means as electronic mail or facsimile is not considered to be practical, and therefore, will not be accepted.

GI 12 Evaluation of Price

The price proposal must be submitted in Canadian dollars and will be evaluated excluding Applicable Taxes.

GI 13 Limitation of Submissions

1. A Proponent may not submit more than one proposal. This limitation also applies to the persons or entities in the case of a joint venture. If more than one proposal is received from a Proponent (or, in the case of a joint venture, from the persons or entities), all such proposals shall be rejected and no further consideration shall be given.
2. A joint venture is defined as an association of two or more parties which combine their money, property, knowledge, skills, time or other resources in a joint business enterprise agreeing to share the profits and the losses and each having some degree of control over the enterprise.
3. An arrangement whereby Canada contracts directly with a consultant who may retain sub-consultants or specialist consultants to perform portions of the services is not a joint venture arrangement. A sub-consultant or specialist consultant may, therefore, be proposed as part of the consultant team by more than one Proponent. The Proponent warrants that it has written permission from such sub-consultant or specialist consultant to propose their services in relation to the services to be performed.
4. Notwithstanding paragraph 3. above, in order to avoid any conflict of interest, or any perception of conflict of interest, a Proponent shall not include in its submission another Proponent as a member of its consultant team, as a sub-consultant or specialist consultant.
5. Any joint venture entered into for the provision of professional services or other services must be in full compliance with the requirements of any provincial or territorial law pertaining thereto in the Province or Territory in which the project is located.

GI 14 Licensing Requirements

1. Consultant team members and key personnel shall be, or be eligible to be licensed, certified or otherwise authorized to provide the necessary professional services to the full extent that may be required by provincial law in the province of the work.
2. By virtue of submission of a proposal, the Proponent certifies that the Proponent's consultant team and key personnel are in compliance with the requirements of paragraph 1 above. The Proponent acknowledges that PWGSC reserves the right to verify any information in this regard and that false or erroneous certification may result in the proposal being declared non-responsive.

GI 15 Rejection of Proposal

1. Canada may reject a proposal where any of the following circumstances is present:
 - (a) the Proponent has been declared ineligible for selection, following unsatisfactory performance in a previous project as determined in accordance with the department's performance review procedures;
 - (b) an employee, sub-consultant or specialist consultant included as part of the proposal has been declared ineligible, for selection for work with the department in accordance with the performance review procedure referred to in paragraph 1.(a), which would render the employee, sub-consultant or specialist consultant ineligible to bid on the requirement, or the portion of the requirement the employee, sub-consultant or specialist consultant is to perform;
 - (c) the Proponent is bankrupt or where, for whatever reason, its activities are rendered inoperable for an extended period;
 - (d) evidence, satisfactory to Canada, of fraud, bribery, fraudulent misrepresentation or failure to comply with any law protecting individuals against any manner of discrimination, has been received with respect to the Proponent, any of its employees, any sub-consultant or any specialist consultant included as part of the proposal;
 - (e) evidence satisfactory to Canada that based on past conduct or behavior, the Proponent, a sub-consultant, a specialist consultant or a person who is to perform the Services is unsuitable or has conducted himself/herself improperly;
 - (f) with respect to current or prior transactions with the Government of Canada,
 - (i) Canada has exercised its contractual remedies of taking the services out of the consultant's hands, suspension or termination for default with respect to a contract with the Proponent, any of its employees, any sub-consultant or any specialist consultant included as part of the proposal;
 - (ii) Canada determines that the Proponent's performance on other contracts, including the quality of the services provided and the quality and timeliness of the delivery of the project, is sufficiently poor to jeopardize the successful completion of the requirement being bid on.

2. Where Canada intends to reject a proposal pursuant to subsection 1.(f), the Contracting Authority will so inform the Proponent and provide the Proponent ten (10) days within which to make representations, before making a final decision on the proposal rejection.

GI 16 Not applicable**GI 17 Insurance Requirements**

1. The successful Proponent shall be required to obtain and maintain Professional Liability and Comprehensive General insurance coverage in accordance with the requirements set out elsewhere in the Request for Standing Offer documents.
2. No insurance requirement stipulated in the Request for Standing Offer documents should be construed as limiting any insurance required by federal, provincial or municipal law. Neither should it limit any coverage which the successful Proponent and other members of the consultant team may consider to be necessary for their own protection or to fulfill their obligations.
3. By virtue of submission of a proposal, the Proponent certifies that the Proponent and the other members of the consultant team as may be applicable are capable of obtaining, and will obtain and maintain liability insurance in accordance with the requirements set out in the proposal documents.

GI 18 Joint Venture

1. A joint venture is an association of two or more parties who combine their money, property, knowledge, expertise or other resources in a single joint business enterprise, sometimes referred as a consortium, to bid together on a requirement. Proponents who bid as a joint venture must indicate clearly that it is a joint venture and provide the following information:
 - (a) the name of each member of the joint venture;
 - (b) the Procurement Business Number of each member of the joint venture;
 - (c) the name of the representative of the joint venture, i.e. the member chosen by the other members to act on their behalf, if applicable;
 - (d) the name of the joint venture, if applicable.
2. If the information is not clearly provided in the proposal, the Proponent must provide the information on request from the Contracting Authority.
3. The proposal and any resulting standing offer must be signed by all the members of the joint venture unless one member has been appointed to act on behalf of all members of the joint venture. The Contracting Authority may, at any time, require each member of the joint venture to confirm that the representative has been appointed with full authority to act as its representative for the purposes of the RFSO and any resulting standing offer. If a standing offer is issued to a joint venture, all members of the joint venture will be jointly and severally or solidarily liable for the performance of any contract resulting from a call-up against the standing offer.

GI 19 Late Submissions

Submissions delivered after the stipulated closing date and time will be returned unopened.

GI 20 Legal Capacity

The Proponent must have the legal capacity to contract. If the Proponent is a sole proprietorship, a partnership or a corporate body, the Proponent must provide, if requested by the Contracting Authority, a statement and any requested supporting documentation indicating the laws under which it is registered or incorporated together with the registered or corporate name and place of business. This also applies to proponents submitting a proposal as a joint venture.

GI 21 Debriefing

Should a Proponent desire a debriefing, the Proponent should contact the person identified on the front page of the Request for Standing Offer within 15 working days of the notification of the results of the solicitation. The debriefing will include an outline of the strengths and weaknesses of the submission, referring to the evaluation criteria. The confidentiality of information relating to other submissions will be protected. The debriefing may be provided in writing, by telephone or in person.

GI 22 Financial Capability

1. Financial Capability Requirement: The Proponent must have the financial capability to fulfill this requirement. To determine the Proponent's financial capability, the Contracting Authority may, by written notice to the Proponent, require the submission of some or all of the financial information detailed below during the evaluation of proposals. The Proponent must provide the following information to the Contracting Authority within fifteen (15) working days of the request or as specified by the Contracting Authority in the notice:
 - (a) Audited financial statements, if available, or the unaudited financial statements (prepared by the Proponent's outside accounting firm, if available, or prepared in-house if no external statements have been prepared) for the Proponent's last three fiscal years, or for the years that the Proponent has been in business if this is less than three years (including, as a minimum, the Balance Sheet, the Statement of Retained Earnings, the Income Statement and any notes to the statements).
 - (b) If the date of the financial statements in (a) above is more than five months before the date of the request for information by the Contracting Authority, the Proponent must also provide, unless this is prohibited by legislation for public companies, the last quarterly financial statements (consisting of a Balance Sheet and a year-to-date Income Statement), as of two months before the date on which the Contracting Authority requests this information.
 - (c) If the Proponent has not been in business for at least one full fiscal year, the following must be provided:
 - (i) the opening Balance Sheet on commencement of business (in the case of a corporation, the date of incorporation); and

- (ii) the last quarterly financial statements (consisting of a Balance Sheet and a year-to-date Income Statement) as of two months before the date on which the Contracting Authority requests this information.
 - (d) A certification from the Chief Financial Officer or an authorized signing officer of the Proponent that the financial information provided is complete and accurate.
 - (e) A confirmation letter from all of the financial institution(s) that have provided short-term financing to the Proponent outlining the total of lines of credit granted to the Proponent and the amount of credit that remains available and not drawn upon as of one month prior to the date on which the Contracting Authority requests this information.
- 2. If the Proponent is a joint venture, the financial information required by the Contracting Authority must be provided by each member of the joint venture.
- 3. If the Proponent is a subsidiary of another company, then any financial information in 1. (a) to (e) above required by the Contracting Authority must be provided by the ultimate parent company. Provision of parent company financial information does not by itself satisfy the requirement for the provision of the financial information of the Proponent, and the financial capability of a parent cannot be substituted for the financial capability of the Proponent itself unless an agreement by the parent company to sign a Parental Guarantee, as drawn up by Public Works and Government Services Canada (PWGSC), is provided with the required information.
- 4. Financial Information Already Provided to PWGSC: The Proponent is not required to resubmit any financial information requested by the Contracting Authority that is already on file at PWGSC with the Contract Cost Analysis, Audit and Policy Directorate of the Policy, Risk, Integrity and Strategic Management Sector, provided that within the above-noted time frame:
 - (a) the Proponent identifies to the Contracting Authority in writing the specific information that is on file and the requirement for which this information was provided; and
 - (b) the Proponent authorizes the use of the information for this requirement.

It is the Proponent's responsibility to confirm with the Contracting Authority that this information is still on file with PWGSC.
- 5. Other Information: Canada reserves the right to request from the Proponent any other information that Canada requires to conduct a complete financial capability assessment of the Proponent.
- 6. Confidentiality: If the Proponent provides the information required above to Canada in confidence while indicating that the disclosed information is confidential, then Canada will treat the information in a confidential manner as permitted by the Access to Information Act, R.S., 1985, c. A-1, Section 20(1) (b) and (c).
- 7. Security: In determining the Proponent's financial capability to fulfill this requirement, Canada may consider any security the Proponent is capable of providing, at the Proponent's sole expense (for example, an irrevocable letter of credit from a registered financial institution drawn in favour of Canada, a performance guarantee from a third party or some other form of security, as determined by Canada).

8. In the event that a proposal is found to be non-compliant on the basis that the Proponent is considered NOT to be financially capable of performing the subject requirement, official notification shall be provided to the Proponent.

GI 23 Revision of Proposal

A proposal submitted may be amended by letter or facsimile provided the revision is received at the office designated for the receipt of proposals, on or before the date and time set for the receipt of proposals. The revision must be on the Proponent's letterhead or bear a signature that identifies the Proponent, and must clearly identify the change(s) to be applied to the original proposal. The revision must also include the information identified in GI 10 2. d).

GI 24 Performance Evaluation

Proponents shall take note that the performance of the Consultant during and upon completion of the services shall be evaluated by Canada. The evaluation includes all or some of the following criteria: Design, Quality of Results, Management, Time and Cost. Should the Consultant's performance be considered unsatisfactory, the Consultant may be declared ineligible for future contracts. The form [PWGSC-TPSGC 2913-1](http://www.tpsgc-pwgsc.gc.ca/app-acq/forms/documents/2913-1.pdf), SELECT - Consultant Performance Evaluation Report (<http://www.tpsgc-pwgsc.gc.ca/app-acq/forms/documents/2913-1.pdf>), is used to record the performance.

GI 25 Proposal Costs

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

GI 26 Conflict of Interest - Unfair Advantage

1. In order to protect the integrity of the procurement process, proponents are advised that Canada may reject a proposal in the following circumstances:
 - (a) if the Proponent, any of its sub-consultants, any of their respective employees or former employees was involved in any manner in the preparation of the bid solicitation or in any situation of conflict of interest or appearance of conflict of interest;
 - (b) if the Proponent, any of its sub-consultants, any of their respective employees or former employees had access to information related to the bid solicitation that was not available to other proponents and that would, in Canada's opinion, give or appear to give the Proponent an unfair advantage.
2. The experience acquired by a Proponent who is providing or has provided the goods and services described in the bid solicitation (or similar goods or services) will not, in itself, be considered by Canada as conferring an unfair advantage or creating a conflict of interest. This Proponent remains however subject to the criteria established above.
3. Where Canada intends to reject a proposal under this section, the Contracting Authority will inform the Proponent and provide the Proponent an opportunity to make representations before

making a final decision. Proponents who are in doubt about a particular situation should contact the Contracting Authority before bid closing. By submitting a proposal, the Proponent represents that it does not consider itself to be in conflict of interest nor to have an unfair advantage. The Proponent acknowledges that it is within Canada's sole discretion to determine whether a conflict of interest, unfair advantage or an appearance of conflict of interest or unfair advantage exists.

GI 27 Limitation of Liability

Except as expressly and specifically permitted in this Request for Standing Offer, no Proponent or potential Proponent shall have any claim for any compensation of any kind whatsoever in relation to this Request for Standing Offer, or any aspect of the procurement process, and by submitting a proposal each Proponent shall be deemed to have agreed that it has no claim.

GI 28 Status and Availability of Resources

The Proponent certifies that, should it be issued a standing offer as a result of the Request for Standing Offer, every individual proposed in its proposal will be available to perform the Services resulting from a call-up against the Standing Offer as required by Canada's representatives and at the time specified in a call-up or agreed to with Canada's representatives. If the Proponent is unable to provide the services of an individual named in its proposal, the Proponent may propose a substitute with at least the same qualifications and experience. The Proponent must advise the Contracting Authority of the reason for the substitution and provide the name, qualifications and experience of the proposed replacement for Canada's approval in its sole discretion.

GI29 Code of Conduct for Procurement - Proposal

The Code of Conduct for Procurement provides that Proponents must respond to Requests for Standing Offers (RFSO) in an honest, fair and comprehensive manner, accurately reflect their capacity to satisfy the requirements set out in the RFSO and resulting contract, submit bids and enter into contracts only if they will fulfill all obligations of the Contract. By submitting a bid, the Proponent is certifying that it is complying with the Code of Conduct for Procurement (<http://www.tpsgc-pwgsc.gc.ca/app-acq/cndt-cndct/contexte-context-eng.html>). Failure to comply with the Code of Conduct for Procurement may render the bid non-responsive

STANDING OFFER PARTICULARS (SP)

SP 1 General

1. The Consultant acknowledges that a standing offer is not a contract and that the issuance of a Standing Offer and Call-up Authority does not oblige or commit Canada to procure or contract for any services listed in the Standing Offer.
2. The Consultant offers to provide and deliver to Canada the services described in the Standing Offer, in accordance with the pricing set out in the Standing Offer if, and when the Contracting Authority may request such services, in accordance with the conditions listed at subsection 3 below.
3. The Consultant understands and agrees that:
 - a) a call-up against the Standing Offer will form a contract only for those services which have been called-up, provided that such call-up is made in accordance with the provisions of the Standing Offer;
 - b) Canada's liability is limited to that which arises from call-ups against the Standing Offer made within the period specified in the Standing Offer;
 - c) Canada has the right to procure the services specified in the Standing Offer by means of any other contract, standing offer or contracting method;
 - d) the Standing Offer cannot be assigned or transferred in whole or in part;
 - e) the Standing Offer may be set aside by Canada at any time.
4. For services from a Specialist Consultant that is not named or for which discipline is not identified in the Standing Offer, the Consultant's proposal shall include the category and name of personnel as well as their hourly rate(s) with the number of hours estimated/required by the Specialist Consultant to perform these services. A fixed fee or, where it is not possible or appropriate to agree upon a fixed fee, a time based fee to an upset limit will be established.

SP 2 Withdrawal/Revision

In the event that the Consultant wishes to withdraw the Standing Offer after authority to call-up against the Standing Offer has been given, the Consultant must provide no less than thirty (30) days' written notice to the Contracting Authority, unless specified otherwise in the Standing Offer. The thirty (30) days' period will start upon receipt of the notification by the Contracting Authority and the withdrawal will be effective at the expiry of that period. The Consultant must fulfill any and all call-ups which are made before the expiry of that period.

The period of the Standing Offer may only be extended, or its usage increased, by the Contracting Authority issuing a revision to the Standing Offer in writing.

SP 3 Period of the Standing Offer

The period for placing call-ups against the Standing Offer shall be for three (3) years, with an option to extend the standing offer for an additional one (1) year period, commencing from the start date identified on the Standing Offer.

If the Standing Offer is authorized for use beyond the initial period, the Consultant offers to extend its proposal for an additional period under the same conditions and at the rates or prices specified in the Standing Offer.

The Consultant will be advised of the decision to authorize the use of the Standing Offer for an extended period by the Contracting Authority thirty (30) days before the expiry of the Standing Offer. A revision to the Standing Offer will be issued by the Contracting Authority.

SP 4 Call-Up Limitation

Each call-up against the Standing Offer will have a maximum limitation of expenditure of \$500,000.00 (Applicable Taxes included). The call-up limitation includes fees and all related disbursements.

SP 5 Call-Up Procedure

1. Services will be called-up as follows:

- a) The Departmental Representative will establish the scope of services to be performed. For each individual Call-Up, consultants will be considered using a computerized distribution system. This system will track all call-ups assigned to each consultant and will maintain a running total of the dollar value of business distributed. The system will contain for each consultant an ideal business distribution percentage which has been established as follows: 42% for the top ranked firm, 33% for the 2nd, and 25% for the 3rd. In the event fewer than three (3) consultants are successful, the undistributed % of business will be modified in similar proportions as detailed in the Request for Standing Offer.

The Consultant who is furthest under their respective ideal business distribution percentage in relation to the other consultants will be selected for the next call-up.

- b) The Consultant will be provided the scope of services and will submit a proposal to the Departmental Representative in accordance with the fixed hourly rates established under the Standing Offer. The Consultant's proposal shall include the category of personnel, name of personnel and the number of hours estimated/required to perform the services, as well as an estimate of proposed disbursements, if applicable. If the Consultant is unable to provide the services of an individual named in its proposal (submitted in response to the Request for Standing Offer), the Consultant may propose a substitute with at least the same qualifications and experience in the estimation of Canada. The Consultant must advise the Contracting Authority of the reason for the substitution and provide the name, qualifications and experience of the proposed replacement for Canada's approval in its sole discretion. If the Consultant is unable to provide a substitute with similar qualifications and experience, Canada may set aside the standing offer.
- c) For services from a Specialist Consultant that is not named or for which discipline is not identified in the Standing Offer, the Consultant's proposal shall include the category and

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name of personnel as well as their hourly rate(s) with the number of hours estimated/required by the Specialist Consultant to perform these services. A fixed fee or, where it is not possible or appropriate to agree upon a fixed fee, a time based fee to an upset limit will be established.

- d) For the preparation of bilingual documents, the Consultant shall estimate the required number of hours and multiply by the hourly rates established in the Standing Offer. If the services of a translation firm are required to produce bilingual documents, these costs shall be treated as a disbursement.
 - e) A fixed fee or, where it is not possible or appropriate to agree upon a fixed fee, a time based fee to an upset limit will be established in accordance with the hourly rate(s) established in the Standing Offer.
 - f) Standing Offer holders not possessing the required security clearance at time of call up, will be bypassed and PWGSC will proceed to the next consultant who possesses the required security clearance and it is furthest away from the ideal business distribution.
2. The Consultant will be authorized in writing by the Contracting Authority to proceed with the services by issuance of a Call-up against the Standing Offer.
 3. Any proposed changes to the scope of work are to be discussed with the Departmental Representative but any resulting changes can only be authorized by an amendment issued by the Contracting Authority.

SP 6 Invoicing

1. For prompt processing of invoices, include the following information on each invoice for payment:
 - a) PWGSC project number;
 - b) Invoicing period with dates;
 - c) Work done to justify invoice (short narrative) for services provided
 - d) Summary of costs as follows:

Amount this invoice	(1)	Fees + Applicable Taxes = Total
Total previous invoices	(2)	Fees + Applicable Taxes = Total
Total invoiced to date	(1+2) =(3)	Fees + Applicable Taxes = Total
Agreed fees	(4)	Fees + Applicable Taxes = Total
Amount to complete	(4-3) =(5)	Fees + Applicable Taxes = Total
% Services completed this stage	(6)	
 - e) Authorized signatures of the consultant and the date.
2. Include with each invoice for authorized disbursements, receipt of original invoices (or legible copies if originals cannot be supplied) for all items claimed.

PROJECT ADMINISTRATION (PA)

In addition to adhering to the general administration, performance and deliverable requirements contained in the generic GP&S document the following Project Administrative (PA) requirements apply during all phases of project delivery and will be or applicable in each Call-up. In the case of conflict between the two documents the following PA requirements take precedence over the GP&S document.

PA 1.1 Coordination with PWGSC

The Project Manager assigned to the project is the Departmental Representative.
The Project Manager is directly concerned with the project and responsible for its progress.

The Project Manager is the liaison between the Consultant, Public Works and Government Services Canada and the Client Departments.

Public Works and Government Services Canada or Other Government Departments will administer the project and exercises continuing control over the Consultant's services during all phases of development.

Unless directed otherwise by the Project Manager, the Consultant shall obtain all Federal requirements and approvals necessary for the work.

The Consultant shall:

- Carry out services in accordance with approved documents and directions given by the Project Manager.
- Ensure all communications carry the PWGSC's or OGD's Project Title, Project Number and File Number.
- Advise the Project Manager of any changes that may affect schedule or budget or are inconsistent with instructions or written approvals previously given.
- Detail the extent and reasons for the changes and obtain written approval before proceeding.

PA 1.2 Coordination with Sub-Consultants

The Consultant shall:

- Throughout all stages of the Project, coordinate and assume responsibility for the services of any Sub-Consultants and specialists retained by the Consultant.
- Ensure clear, accurate and ongoing communication of concept, budget, and scheduling issues (including changes) as they relate to the responsibilities of all sub-consultants and specialists from initial base building reviews to post construction reports.
- Ensure Sub-Consultants provide adequate inspection services and attend all required meetings.

PA 1.3 General Project Deliverables

Building Condition data and any requested “stand alone” tasks shall be completed as described in the Statement of Work/ Terms of Reference and delivered to PWGSC in the prescribed electronic format.

PA 1.4 Lines of Communication

Correspond only with the Project Manager, at times and in the manner dictated by the Project Manager.

The Consultant shall not communicate with client departments unless so authorized in writing by the Project Manager.

PA 1.5 Media

The Consultant shall not respond to requests for project related information or questions from the media.

Such inquiries are to be directed to the Project Manager.

PA 1.6 Meetings

As and if required, meetings may be arranged during individual call-ups, for all members of project team, including representatives from:

- Client Department.
- Public Services & Procurement Canada.
- Consultant.

The Consultant shall:

- Attend meetings.

PA 1.7 Project Response Time

The Consultant and proposed sub-consultants shall be personally available to attend meetings and respond to inquiries:

- Within one (1) business day of request, from the date of the award of the consultant call-up until delivery of the final documents or files.

PA 1.8 Submissions, Reviews and Approvals

For each call-up, work in progress will be reviewed as directed in the Terms of Reference:

PA 1.9 Codes, Standards, Policies, Laws, Acts, and Guidelines

Comply with all applicable federal, provincial, regional and municipal requirements, including but not limited to:

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CODES

All applicable Codes, including:

- Canada Labour Code, Part II (CLC), R.S., 1985, c. L-2.
- Canada Occupational Health and Safety Regulations (COHSR), SOR/86-304.
- National Building Code of Canada (NBC).
- Provincial/Territorial Building and Fire Codes
- National Plumbing Code of Canada (NPC).
- National Fire Code of Canada (NFC).

POLICES & GUIDELINES

All applicable Policies and Guidelines, including:

Treasury Board of Canada Secretariat (TBS):

- Accessibility Standard for Real Property.
- Policy on Management of Real Property.
- Federal Identity Program (FIP).
- Occupational Safety and Health Directive:
 - Part IV - Boiler and Pressure Vessels.
 - Part V - Elevating Devices.
- Fire Protection Services - General (Chapter 3-0).
- Standard for Fire Safety Planning and Fire Emergency Organization (Chapter 3-1).
- Fire Protection Standard for Design and Construction (Chapter 3-2).
- Fire Protection Standard for Electronic Data Processing Equipment (Chapter 3-3).
- Fire Alarm Systems Standard (Chapter 3-4).
- Standard for Fire Inspections (Chapter 3-5).

Public Works and Government Services Canada (PWGSC):

- Asset Integrity Directive.
- RPB - Facility Maintenance Policy.
- RPB - Facility Maintenance Guidelines.
- RPB - Seismic Resistance of PWGSC Buildings.
- RPB - MD 15000 Mechanical Environmental Standard for Federal Office Buildings
- DP 058 Electrical Safety.

STANDARDS

All applicable Standards, including:

Canadian Standards Association (CSA):

- CAN/CSA - B44 Safety Code for Elevators.
- CAN/CSA - B51 Boiler, Pressure Vessel and Pressure Piping Code.
- CAN/CSA - B52 Mechanical Refrigeration Code.
- CAN/CSA - B651 Accessible Design for the Built Environment.
- CAN/CSA - C22.1 Canadian Electrical Code, Part I, Safety Standard for Electrical Installations.
- CAN/CSA - C282 Emergency Electrical Power Supply for Buildings.
- CAN/CSA - Z94.4 Selection, Use and Care of Respirators.

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Underwriter Laboratories of Canada (ULC):

- CAN/ULC - S524 Installation of Fire Alarm Systems.
- CAN/ULC - S525 Audible Signal Appliances for Fire Alarm Systems, Including Accessories.
- CAN/ULC - S526 Visual Signal Devices for Fire Alarm Systems, Including Accessories.
- CAN/ULC - S527 Standard for Control Units for Fire Alarm Systems.
- CAN/ULC - S529 Smoke Detectors for Fire Alarm Systems.
- CAN/ULC - S5301 Heat Actuated Fire Detectors for Fire Alarm Systems.
- CAN/ULC - S531 Standard for Smoke Alarms.
- CAN/ULC - S536 Inspection and Testing of Alarm Systems.
- CAN/ULC - S537 Verification of Fire Alarm Systems.
- CAN/ULC - S541 Speakers for Fire Alarm Systems, and Accessories.

National Fire Protection Association (NFPA):

- various.

American Society of Heating, Refrigerating and Air-Conditioning Engineers (ASHRAE):

- various.

American Standard Testing Methods (ASTM)

- various, including:
 - Moisture Control in Buildings: The Key Factor in Mold Prevention.

National Research Council of Canada (NRC):

- Manual for Screening of Buildings for Seismic Evaluation.

Natural Resources Canada (NRCAN):

Federal Buildings Initiative.

TERMS AND CONDITIONS

0220DA GENERAL CONDITIONS (GC)

GC 1 Definitions

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

Average Bank Rate means the simple arithmetic mean of the *Bank Rate* in effect at 4:00 p.m. Eastern Time each day during the calendar month which immediately precedes the calendar month in which payment is made;

Bank Rate means the rate of interest established from time to time by the Bank of Canada as the minimum rate at which it makes short term advances to members of the Canadian Payments Association;

Canada, Crown, Her Majesty or the Government

means Her Majesty the Queen in right of Canada as represented by the Minister of Public Works and Government Services and any other person duly authorized to act on behalf of that minister or, if applicable, an appropriate minister to whom the Minister of Public Works and Government Services has delegated his or her powers, duties or functions and any other person duly authorized to act on behalf of that minister; **Construction Contract** means a contract entered into between *Canada* and a *Contractor* for the construction of the Project;

Construction Contract Award Price means the price at which a *Construction Contract* is awarded to a *Contractor*;

Construction Cost Estimate means an anticipated amount for which a *Contractor* will execute the construction of the Project;

Construction Cost Limit means that portion of the total amount of Project funds which shall not be exceeded on construction of the Project;

Consultant means the party identified in the Standing Offer to perform the *Consultant Services* under the Standing Offer and any subsequent Call-up, and includes the officer or employee of the *Consultant* identified in writing by the *Consultant*;

Contracting Authority means the party identified on the front cover page, responsible for the establishment of the Standing Offer, its amendments, administration, and any contractual issues relating to individual call-ups;

Contractor means a person, firm or corporation with whom *Canada* enters, or intends to enter, into a *Construction Contract*;

Contract Price means the amount stated in the Call-Up to be payable to the *Consultant* for the *Services*, exclusive of *Applicable Taxes*;

Cost Plan means the allocation of proposed costs among the various elements of the Project, as described in the *Project Brief or Terms of Reference*;

Days means continuous calendar days, including weekends and statutory public holidays;

"Departmental Representative"

means the officer or employee of Canada identified to the consultant in writing by a duly authorized departmental officer to perform the Departmental Representative's duties under the Agreement;

Mediation is a process of dispute resolution in which a neutral third party assists the parties involved in a dispute to negotiate their own settlement;

Project Brief or Terms of Reference means a document describing in sufficient detail the *Services* to be provided by the *Consultant* to permit the *Consultant* to proceed with the *Services* and may include general project information, scope of the work, site and design data, and time plan, specifically related to the Project;

Project Schedule means a time plan, including the sequence of tasks, milestone dates and critical dates which must be met for the implementation of the planning, design and construction phases of the Project;

Services means the *Services* provided by the *Consultant* and the *Services* required for the project as set forth in the Standing Offer and subsequent Call-up documents;

Specialist Consultant means any Architect, Professional Engineer, or other specialist, other than the *Consultant*, engaged by *Canada* directly or, at the specific request of *Canada*, engaged by the *Consultant*;

Sub-Consultant means any Architect, Professional Engineer, or other specialist engaged by the *Consultant* for the *Services* included in the Standing Offer or any subsequent Call-up;

Technical Documentation includes designs, reports, photographs, physical models, surveys, drawings, specifications, computer software developed for the purpose of the Project, computer printouts, design notes, calculations, CADD (Computer-aided Design and Drafting) files, and other data, information and material, prepared, computed, drawn, or produced and operating and maintenance manuals either prepared or collected for the Project.

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

GC 2 Interpretations

1. Words importing the singular only also include the plural, and vice versa, where the context requires;
2. Headings or notes in the Standing Offer shall not be deemed to be part thereof, or be taken into consideration in its interpretation;

3. "Herein", "hereby", "hereof", "hereunder" and similar expressions refer to the Standing Offer as a whole and not to any particular subdivision or part thereof.

GC 3 Not Applicable**GC 4 Assignment**

1. The Call-Up shall not be assigned, in whole or in part, by the *Consultant* without the prior consent of Canada.
2. An assignment of the Call-Up without such consent shall not relieve the *Consultant* or the assignee from any obligation under the Call-up, or impose any liability upon *Canada*.

GC 5 Indemnification

1. The *Consultant* shall indemnify and save harmless *Canada*, its employees and agents, from losses arising out of the errors, omissions or negligent acts of the *Consultant*, its employees and agents, in the performance of the *Services* under the Call-up that may result from the Standing Offer.
2. The *Consultant's* liability to indemnify or reimburse *Canada* under the Standing Offer shall not affect or prejudice *Canada* from exercising any other rights under law.

GC 6 Notices

1. Any notice, request, direction, consent, decision, or other communication that is required to be given or made by either party pursuant to the Standing Offer, shall be in writing, and shall be deemed to have been effectively given when:
 - (a) served personally, on the day it is delivered;
 - (b) forwarded by registered mail, on the day the postal receipt is acknowledged by the other party; or
 - (c) forwarded by facsimile or other electronic means of transmission, one working day after it was transmitted.
2. The address of either party, or the person authorized to receive notices, may be changed by notice in the manner set out in this provision.

GC 7 Suspension

1. The *Departmental Representative* may require the *Consultant* to suspend the *Services* being provided, or any part thereof, for a specified or unspecified period.
2. If a period of suspension does not exceed sixty (60) *days* and when taken together with other periods of suspension does not exceed ninety (90) *days*, the *Consultant* will, upon the expiration of that period, resume the performance of the *Services* in accordance with the terms of the Standing Offer and the relevant Call-up, subject to any agreed adjustment of the time schedule as referred to in CS 3 of clause 9999DA, Consultant Services.

3. If a period of suspension exceeds sixty (60) *days* or when taken together with other periods of suspension, the total exceeds ninety (90) *days*, and:
- (a) the *Departmental Representative* and the *Consultant* agree that the performance of the *Services* shall be continued, then the *Consultant* shall resume performance of the *Services*, subject to any terms and conditions agreed upon by the *Departmental Representative* and the *Consultant*, or
 - (b) the *Departmental Representative* and the *Consultant* do not agree that the performance of the *Services* shall be continued, then the Call-Up shall be terminated by notice given by Canada to the *Consultant*, in accordance with the terms of GC 8.
4. Suspension costs related to this clause are as outlined in TP 8 of clause 9998DA, Terms of Payment.

GC 8 Termination

Canada may terminate any Call-up at any time in its sole discretion, and the fees paid to the *Consultant* will be in accordance with the relevant provisions in TP 9 of clause 9998DA, Terms of Payment.

GC 9 Taking the Services Out of the Consultant's Hands

1. Canada may take all or any part of the *Services* out of the *Consultant's* hands and may employ reasonable means necessary to complete such *Services* in the event that:
- (a) The *Consultant* has become insolvent or has committed an act of bankruptcy, and has neither made a proposal to the *Consultant's* creditors nor filed a notice of intention to make such a proposal, pursuant to the *Bankruptcy and Insolvency Act*, or
 - (b) the *Consultant* fails to perform any of the *Consultant's* obligations under the Standing Offer or any of the Call-ups or, in Canada's opinion, so fails to make progress as to endanger performance of the Standing Offer or any of its call-ups, in accordance with its terms.
2. If the *Consultant* has become insolvent or has committed an act of bankruptcy, and has either made a proposal to the *Consultant's* creditors or filed a notice of intention to make such a proposal, pursuant to the *Bankruptcy and Insolvency Act*, the *Consultant* shall immediately forward a copy of the proposal or the notice of intention to the *Contracting Authority*.
3. Before the *Services* or any part thereof are taken out of the *Consultant's* hands under GC 9.1(b), the *Departmental Representative* will provide notice to the *Consultant*, and may require such failure of performance or progress to be corrected. If within fourteen (14) *days* after receipt of notice the default is not corrected or corrective action is not initiated to correct such fault, Canada may, by notice, without limiting any other right or remedy, take all or any part of the *Services* out of the *Consultant's* hands.
4. If the *Services* or any part thereof have been taken out of the *Consultant's* hands, the *Consultant* will be liable for, and upon demand pay to *Canada*, an amount equal to all loss and damage suffered by *Canada* by reason of the non-completion of the *Services* by the *Consultant*.

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5. If the *Consultant* fails to pay on demand for the loss or damage as a result of GC 9.4, *Canada* will be entitled to deduct and withhold the same from any payments due and payable to the *Consultant*.
 6. If the *Services* or any part thereof are taken out of the *Consultant's* hands as a result of GC 9.1(b) and GC 9.3, the amount referred to in GC 9.5 shall remain in the Consolidated Revenue Fund until an agreement is reached or a decision of a court or tribunal is rendered. At that time the amount, or any part of it, which may become payable to the *Consultant* shall be paid together with interest from the due date referred to in TP 2 of clause 9998DA, Terms of Payment, and in accordance with the terms of the Standing Offer.
 7. The taking of the *Services*, or any part thereof, out of the *Consultant's* hands does not relieve or discharge the *Consultant* from any obligation under the Standing Offer, the Call-up, or imposed upon the *Consultant* by law, in respect to the *Services* or any part thereof that the *Consultant* has performed.

GC 10 Time and Cost Records to be Kept by the Consultant

1. Time charged and the accuracy of the *Consultant's* time recording system may be verified by the *Departmental Representative* before or after payment is made to the *Consultant* under the terms and conditions of the Call up.
2. The *Consultant* shall keep accurate time and cost records and, if required for the purposes of the Standing Offer, shall make these documents available to the *Departmental Representative* who may make copies and take extracts therefrom.
3. The *Consultant* shall afford facilities for audit and inspection upon request and shall provide the *Departmental Representative* with such information as may be required from time to time with reference to the documents referred to in GC 10.2.
4. The *Consultant* shall, unless otherwise specified, keep the time sheets and cost records available for audit and inspection for a period of at least six (6) years following completion of the *Services*.
5. If the verification is done after payment by *Canada*, the *Consultant* agrees to repay any overpayment immediately upon demand.

GC 11 National or Departmental Security

1. If the *Departmental Representative* is of the opinion that the Project is of a class or kind that involves national or departmental security, the *Consultant* may be required:
 - (a) to provide any information concerning persons employed for purposes of the Standing Offer unless prohibited by law;
 - (b) to remove any person from the Project and its site if that person cannot meet the prescribed security requirements; and
 - (c) to retain the Project *Technical Documentation* while in the *Consultant's* possession in a manner specified by the *Departmental Representative*.

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2. Notwithstanding the provisions of GC 12, if the Project is of a class or kind that involves national or departmental security, the *Consultant* shall not issue, disclose, discard or use the Project *Technical Documentation* on another project without the written consent of the *Departmental Representative*.

GC 12 Rights to Intellectual Property

1. Definitions

"Background" means all Technical Output that is not Foreground and that is proprietary to or the confidential information of the *Consultant*, the *Consultant's Sub-Consultants*, or any other entity engaged by the *Consultant* in the performance of the *Services*;

"Foreground" means any Invention first conceived, developed or reduced to practice as part of the *Services* and all other Technical Output conceived, developed, produced or implemented as part of the *Services*;

"IP Rights" means any intellectual property rights recognized by law, including any intellectual property right protected through legislation (such as that governing copyright, patents, industrial design, or integrated circuit topography) or arising from protection of information as a trade secret or as confidential information;

"Invention" means any new and useful art, process, machine, manufacture or composition of matter, or any new and useful improvement in any art, process, machine, manufacture or composition of matter, whether or not patentable and without limiting the foregoing the term includes any unique design and construction system;

"Technical Output" means: (i) all information of a scientific, technical, or artistic nature relating to the *Services*, whether oral or recorded in any form or medium and whether or not subject to copyright, including but not limited to any Inventions, designs, methods, reports, photographs, physical models, surveys, drawings, specifications developed for the purpose of the Project; as well as (ii) computer printouts, design notes, calculations, CADD (Computer-aided Design and Drafting) files, and other data, information and material, prepared, computed, drawn, or produced for the purpose of the Project; and (iii) operating and maintenance manuals prepared or collected for the Project; and (iv) any buildings, built works, structures and facilities constructed as, or as part of, the Project. Technical Output does not include data concerned with the administration of the Standing Offer and/or Call-Up by Canada or the Consultant, such as internal financial or management information, unless it is a deliverable under the terms of the Standing Offer and/or Call-Up.

2. Identification and Disclosure of Foreground

The *Consultant* shall:

- (a) promptly report and fully disclose to Canada all Foreground that could be Inventions, and shall report and fully disclose to Canada all other Foreground not later than the time of completion of the *Services* or such earlier time as Canada or the Standing Offer and/or Call-Up may require, and

- (b) for each disclosure referred to in (a), indicate the names of all *Sub-Consultants* at any tier, if any, in which IP Rights to any Foreground have vested or will vest.

Before and after final payment to the *Consultant*, Canada shall have the right to examine all records and supporting data of the *Consultant* which Canada reasonably decides is pertinent to the identification of the Foreground.

3. IP Rights Vest with *Consultant*

Subject to articles GC 12.10 and GC 12.11 and the provisions of GC 11 National or Departmental Security, and without affecting any IP Rights or interests therein that have come into being prior to the Standing Offer and/or Call-Up or that relate to information or data supplied by *Canada* for the purposes of the Standing Offer and/or Call-Up, all IP Rights in the Foreground shall immediately, as soon as they come into existence, vest in and remain the property of the *Consultant*.

4. Ownership Rights in Deliverables

Notwithstanding the *Consultant's* ownership of the IP Rights in the Foreground that is a prototype, built work, building, structure, facility, model or custom or customized system or equipment together with associated manuals and other operating and maintenance documents and tools, *Canada* shall have unrestricted ownership rights in those deliverables, including the right to make them available for public use, whether for a fee or otherwise, and the right to sell them.

5. Licence to Foreground

Without limiting any implied licences that may otherwise vest in *Canada*, and in consideration of *Canada's* contribution to the cost of development of the Foreground, the *Consultant* hereby grants to *Canada* a non-exclusive, perpetual, irrevocable, worldwide, fully-paid and royalty-free licence to exercise all IP Rights in the Foreground that vest in the *Consultant* pursuant to article GC 12.3, for the purpose of:

- (a) the construction or implementation of any building, built works, structures and facilities, contemplated by the Project;
- (b) the further development or alteration or evolution of any part of the constructed or implemented Project, including procurement of materials and components for this purpose;
- (c) the further development, modification (including additions or deletions), completion, translation, or implementation of the Foreground and any addition to it as *Canada* may require for the purposes of the completion, utilization and subsequent evolution of the Project;
- (d) the use, occupancy, operation, exploitation, maintenance, repair or restoration of the constructed or implemented or subsequently modified Project, including the procurement of replacement materials and components required for any such purpose; and
- (e) the publishing and transmission of reproductions of the Project or any part thereof in the form of paintings, drawings, engravings, photographs or cinematographic works, to the

public, in hard copy or by any electronic or other means, except for copies in the nature of architectural drawings or plans.

6. Licence to Foreground for Other Projects

The *Consultant* hereby grants to *Canada* a non-exclusive, perpetual, world-wide, irrevocable licence to exercise all IP Rights that vest in the *Consultant* pursuant to paragraph GC 12.3 for the purpose of planning, designing and constructing or otherwise implementing any project other than the Project, and for any purpose set out in paragraph GC 12.5 as it relates to such other project. In the event that *Canada* exercises such IP Rights in another project, and provided that *Canada* does not already have equivalent rights under a previous contract or otherwise, *Canada* agrees to pay to the *Consultant* reasonable compensation determined in accordance with current industry practice and having regard to *Canada's* contribution to the cost of development of the Foreground. The *Consultant* shall ensure that in any sale, assignment, transfer or licence of any of the IP Rights that vest in the *Consultant* under the Standing Offer and/or Call-Up, the purchaser, assignee, transferee or licensee agrees to be bound by the terms of this provision and to accept reasonable compensation as is contemplated herein. The *Consultant* shall also ensure that any such purchaser, assignee, transferee or licensee of the IP Rights is required to impose the same obligations on any subsequent purchaser, transferee, assignee or licensee.

7. Licence to Background

Without limiting any implied licences that may otherwise vest in *Canada*, the *Consultant* hereby grants to *Canada* a non-exclusive, perpetual, irrevocable, worldwide, fully-paid and royalty-free licence to exercise such of the IP Rights in any Background incorporated into the *Services* or necessary for the performance of the *Services* as may be required

- (a) for the purposes contemplated in article GC 12.5 and GC 12.6;
- (b) for disclosure to any contractor engaged by *Canada*, or bidder for such a contract, to be used solely for a purpose set out in article GC 12.5 and GC 12.6;

and the *Consultant* agrees to make any such Background available to *Canada* upon request.

8. *Canada's* Right to Disclose and Sub-license

The *Consultant* acknowledges that *Canada* may wish to award contracts, which may include a competitive process, for any of the purposes contemplated in article GC 12.5, GC 12.6 and GC 12.7. The *Consultant* agrees that *Canada's* licence in relation to the IP Rights in the Foreground and in the Background, includes the right to disclose that Foreground and Background to bidders for such contracts, and to sub-license or otherwise authorize the use of that Foreground and Background by any contractor or consultant engaged by *Canada* for the purpose of carrying out such a contract.

9. *Consultant's* Right to Grant Licence

- (a) The *Consultant* represents and warrants that the *Consultant* has, or the *Consultant* shall obtain without delay, the right to grant to *Canada* the licence to exercise the IP Rights in the Foreground and the Background as required by the Standing Offer and/or Call-Up.

- (b) Where the IP Rights in any Background or Foreground are or will be owned by a *Sub-Consultant*, the *Consultant* shall either obtain a licence from that *Sub-Consultant* that permits compliance with articles GC 12.5, GC 12.6 and GC 12.7 or shall arrange for the *Sub-Consultant* to convey directly to *Canada* the same rights by execution of the form provided for that purpose by *Canada* no later than the time of disclosure to *Canada* of that Background and Foreground.

10. Trade Secrets and Confidential Information

The *Consultant* shall not use or incorporate any trade secrets or confidential information in any Foreground or Background used or created in performance of the Standing Offer and/or Call-Up.

11. *Canada* Supplied Information

- (a) Where performance of the *Services* involves the preparation of a compilation using information supplied by *Canada*, then the IP Rights that shall vest under paragraph GC 12.3 shall be restricted to the IP Rights in Foreground that are capable of being exploited without the use of the information supplied by *Canada*. All IP Rights in any compilation, the Foreground in which cannot be exploited without the use of such *Canada* supplied information shall vest in *Canada*. The *Consultant* agrees that the *Consultant* shall not use or disclose any *Canada* supplied information for any purpose other than completing the performance of the *Services*. The *Consultant* shall maintain the confidentiality of such information. Unless the Standing Offer and/or Call-Up otherwise expressly provides, the *Consultant* shall deliver to *Canada* all such information together with every copy, draft, working paper and note thereof that contains such information upon the completion or termination of the Standing Offer and/or Call-Up, or at such earlier time as *Canada* may require.
- (b) If the *Consultant* wishes to make use of any *Canada* supplied information that was supplied for purposes of the Standing Offer and/or Call-Up, for the commercial exploitation or further development of any of the Foreground, then the *Consultant* may make a written request for a licence to exercise the required IP Rights in that *Canada* supplied information, to *Canada*. The *Consultant* shall give *Canada* an explanation as to why such a licence is required. Should *Canada* agree to grant such a licence, it shall be on terms and conditions to be negotiated between the parties including payment of compensation to *Canada*.

12. Transfer of IP Rights

- (a) If *Canada* takes the *Services* out of the *Consultant*'s hands in accordance with GC 9 of the General Conditions, in whole or in part, or if the *Consultant* fails to disclose any Foreground in accordance with article GC 12.2, *Canada* may upon reasonable notice, require the *Consultant* to convey to *Canada* all of the IP Rights in the Foreground or in the case of a failure to disclose, all the IP Rights in the Foreground not provided. The IP Rights to be conveyed shall include the IP Rights in any Foreground that have vested or are to vest in a *Sub-Consultant*. In the case of IP Rights in Foreground which have been sold or assigned to a party other than a *Sub-Consultant*, the *Consultant* shall not be obligated to convey those IP Rights to *Canada*, but shall pay to *Canada* on demand an amount equal to the consideration which the *Consultant* received from the sale or assignment of the IP Rights in that Foreground or, in the case of a sale or assignment

was not at arms length, the fair market value of the IP Rights in that Foreground, in each case including the value of future royalties or licence fees.

- (b) In the event of the issuance by Canada of a notice referred to in (a), the *Consultant* shall, at the *Consultant's* own expense and without delay, execute such conveyances or other documents relating to title to the IP Rights as Canada may require, and the *Consultant* shall, at *Canada's* expense, afford Canada all reasonable assistance in the preparation of applications and in the prosecution of any applications for, or any registration of, any IP Right in any jurisdiction, including without limitation the assistance of the inventor in the case of Inventions.
- (c) Until the *Consultant* completes the performance of the *Services* and discloses all of the Foreground in accordance with article GC 12.2, and subject to the provisions of GC 11 National or Departmental Security, the *Consultant* shall not, without the prior written permission of Canada, sell, assign or otherwise transfer title to the IP Rights in any of the Foreground, or license or otherwise authorize the use of the IP Rights in any of the Foreground by any person.
- (d) In any sale, assignment, transfer or licence of IP Rights in Foreground by the *Consultant* except a sale or licence for end use of a product based on Foreground, the *Consultant* shall impose on the other party all of its obligations to *Canada* in relation to the IP Rights in the Foreground and any restrictions set out in the Standing Offer and/or Call-Up on the use or disposition of the IP Rights in the Foreground (and, if applicable, the Foreground itself), including the obligation to impose the same obligations and restrictions on any subsequent transferee, assignee or licensee. The *Consultant* shall promptly notify *Canada* of the name, address and other pertinent information in regard to any transferee, assignee or licensee.

GC 13 Conflict of Interest and Values and Ethics Codes for the Public Service

- 1. The *Consultant* declares that the *Consultant* has no pecuniary interest in the business of any third party that would cause, or seem to cause, a conflict of interest in carrying out the *Services*, and should such an interest be acquired during the life of the Standing Offer, the *Consultant* shall declare it immediately to the *Departmental Representative*.
- 2. The *Consultant* shall not have any tests or investigations carried out by any persons, firms, or corporations, that may have a direct or indirect financial interest in the results of those tests or investigations.
- 3. The *Consultant* shall not submit, either directly or indirectly, a bid for any Construction Contract related to the Project.
- 4. The *Consultant* acknowledges that no individuals who are subject to the provisions of the Conflict of Interest Act, 2006, c. 9, s.2, the Conflict of Interest Code for Members of the House of Commons, the Values and Ethics Code for the Public Services, or all other codes of values and ethics applicable within specific organizations cannot derive any direct benefit resulting from the Standing Offer or subsequent Call-ups.
- 5. (a) The *Consultant* shall not be eligible to compete as a consultant or sub-consultant for a project which may result from the provision of the *Services* if the *Consultant* is involved in

the development of a Project Brief or Terms of Reference, a Request for Proposal or similar documents for such project.

- (b) The Consultant providing certain pre-design services (e.g. studies, analysis, schematic design) that do not involve the development of a Project Brief or Terms of Reference, a Request for Proposal or similar documents for such project may be eligible to compete as a consultant or sub-consultant for a project which may result from the provision of these services. The experience acquired by a Consultant who has only provided pre-design services, where the information / documentation resulting from these services is made available to other proponents, will not be considered by Canada as conferring an unfair advantage or creating a conflict of interest.

GC 14 Status of Consultant

The Consultant is an independent contractor engaged by Canada to perform the Services. Nothing in the Standing Offer through a Call-up is intended to create a partnership, a joint venture or an agency between Canada and the other party or parties. The Consultant must not represent itself as an agent or representative of Canada to anyone. Neither the Consultant nor any of its personnel is engaged as an employee or agent of Canada. The Consultant is responsible for all deductions and remittances required by law in relation to its employees.

GC 15 Declaration by Consultant

The *Consultant* declares that:

- (a) based on the information provided pertaining to the *Services* required under the Standing Offer, the *Consultant* has been provided sufficient information by the *Departmental Representative* to enable the *Services* required under the Standing Offer to proceed and is competent to perform the *Services* and has the necessary licences and qualifications including the knowledge, skill and ability to perform the *Services*; and
- (b) the quality of *Services* to be provided by the *Consultant* shall be consistent with generally accepted professional standards and principles.

GC 16 Insurance Requirements

1. General

- a) The Consultant shall ensure that appropriate liability insurance coverage is in place to cover the consultant and the members of the consultant team and shall maintain all required insurance policies as specified herein.
- b) The Consultant shall, if requested by the Contracting Officer at any time, provide to the Contracting Officer an Insurer's Certificate of Insurance and/or the originals or certified true copies of all contracts of insurance maintained by the Consultant pursuant to the provisions contained herein.
- c) The payment of monies up to the deductible amount made in satisfaction of a claim shall be borne by the Consultant.

- d) Any insurance coverages additional to those required herein that the Consultant and the other members of the consultant team may deem necessary for their own protection or to fulfill their obligations shall be at their own discretion and expense.

2. Commercial General Liability

- a) The insurance coverage provided shall not be less than that provided by IBC Form 2100, as amended from time to time, and shall have: a limit of liability of not less than \$5,000,000.00 per occurrence; an aggregate limit of not less than \$5,000,000.00 within any policy year.
- b) The policy shall insure the Consultant and shall include Her Majesty the Queen in right of Canada, represented by the Minister of Public Works and Government Services as an Additional Insured, with respect to liability arising out of the performance of the Services.

3. Professional Liability

- a) The Professional Liability insurance coverage shall be in an amount usual for the nature and scope of the Services but, shall have a limit of liability of not less than \$1,000,000 per claim, and be continually maintained from the commencement of performance of the Services until five (5) years after their completion.
- b) The following provision must be incorporated into the conditions of the Consultant's Professional Liability insurance coverage: "Notice of Cancellation of Insurance Coverage: The Insurer agrees to give the Contracting Authority at least thirty (30) days' prior written notice of any policy cancellation and before making any reduction in coverage."

GC 17 Resolution of Disagreements

1. In the event of a disagreement regarding any aspect of the *Services* or any instructions given under the Standing Offer and subsequent Call-ups:
 - (a) The *Consultant* may give a notice of disagreement to the *Departmental Representative*. Such notice shall be promptly given and contain the particulars of the disagreement, any changes in time or amounts claimed, and reference to the relevant clauses of the Standing Offer and Call-up;
 - (b) The *Consultant* shall continue to perform the *Services* in accordance with the instructions of the *Departmental Representative*; and
 - (c) The *Consultant* and the *Departmental Representative* shall attempt to resolve the disagreement by negotiations conducted in good faith. The negotiations shall be conducted, first, at the level of the *Consultant's* project representative and the *Departmental Representative* and, secondly and if necessary, at the level of a principal of the *Consultant* firm and a senior departmental manager.
2. The *Consultant's* continued performance of the *Services* in accordance with the instructions of the *Departmental Representative* shall not jeopardize the legal position of the *Consultant* in any disagreement.

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3. If it was subsequently agreed or determined that the instructions given were in error or contrary to the Standing Offer or Call-up, *Canada* shall pay the *Consultant* those fees the *Consultant* shall have earned as a result of the change(s) in the *Services* provided, together with those reasonable disbursements arising from the change(s) and which have been authorized by the *Departmental Representative*.
 4. The fees mentioned in GC 17.3 shall be calculated in accordance with the Terms of Payment set out in the Standing Offer and the relevant Call-up.
 5. If the disagreement is not settled, the *Consultant* may make a request to the *Departmental Representative* for a written departmental decision and the *Departmental Representative* shall give notice of the departmental decision within fourteen (14) days of receiving the request, setting out the particulars of the response and any relevant clauses of the Standing Offer or Call-up.
 6. Within fourteen (14) days of receipt of the written departmental decision, the *Consultant* shall notify the *Departmental Representative* if the *Consultant* accepts or rejects the decision.
 7. If the *Consultant* rejects the departmental decision, the *Consultant*, by notice may refer the disagreement to *Mediation*.
 8. If the disagreement is referred to *Mediation*, the *Mediation* shall be conducted with the assistance of a skilled and experienced mediator chosen by the *Consultant* from a list of mediators proposed by *Canada*, and departmental *Mediation* procedures shall be used unless the parties agree otherwise.
 9. Negotiations conducted under the Standing Offer and any resulting Call-up, including those conducted during *Mediation*, shall be without prejudice.

GC 18 Amendments

The Standing Offer or any resulting Call-up may not be amended, or modified, nor shall any of its terms and conditions be waived, except by agreement in writing executed by the Consultant and the Contracting Authority.

GC 19 Entire Agreement

The Standing Offer and Call-up constitutes the entire and only agreement between the parties and supersedes all previous negotiations, communications and other agreements, whether written or oral, unless they are incorporated by reference in the Standing Offer and/or Call-up. There are no terms, covenants, representations, statements or conditions binding on the parties other than those contained in the Standing Offer and Call-up.

GC 20 Contingency Fees

The Consultant certifies that it has not, directly or indirectly, paid or agreed to pay and agrees that it will not, directly or indirectly, pay a contingency fee for the solicitation, negotiation or obtaining of the Standing Offer to any person, other than an employee of the Consultant acting in the normal course of the employee's duties. In this section, "contingency fee" means any payment or other compensation that depends or is calculated based on a degree of success in soliciting, negotiating or obtaining the Standing

Offer and "person" includes any individual who is required to file a return with the registrar pursuant to section 5 of the Lobbying Act, 1985, c. 44 (4th Supplement).

GC 21 Harassment in the Workplace

1. The Consultant acknowledges the responsibility of Canada to ensure, for its employees, a healthy work environment, free of harassment. A copy of the Treasury Board policy, the Policy on the Prevention and Resolution of Harassment in the Workplace, which is also applicable to the Consultant, is available on the Treasury Board Web site.
2. The Consultant must not, either as an individual, or as a corporate or unincorporated entity, through its employees or subconsultants, harass, abuse, threaten, discriminate against or intimidate any employee, consultant or other individual employed by, or under contract with Canada. The Consultant will be advised in writing of any complaint and will have the right to respond in writing. Upon receipt of the Consultant's response, the Contracting Authority will, at its entire discretion, determine if the complaint is founded and decide on any action to be taken.

GC 22 Taxes

1. Federal government departments and agencies are required to pay *Applicable Taxes*.
2. *Applicable Taxes* will be paid by Canada as provided in the invoice submission. *Applicable Taxes* must be specified on all invoices as a separate item along with corresponding registration numbers from the tax authorities. All items that are zero-rated, exempt or to which these *Applicable Taxes* do not apply must be identified as such on all invoices. It is the sole responsibility of the Consultant to charge *Applicable Taxes* at the correct rate in accordance with applicable legislation. The Consultant agrees to remit to appropriate tax authorities any amounts of *Applicable Taxes* paid or due.
3. The Consultant is not entitled to use Canada's exemptions from any tax, such as provincial sales taxes, unless otherwise specified by law. The Consultant must pay applicable provincial sales tax, ancillary taxes, and any commodity tax, on taxable goods or services used or consumed in the performance of the contract (in accordance with applicable legislation), including for material incorporated into real property.
4. In those cases where *Applicable Taxes*, customs duties, and excise taxes are included in the *Contract Price*, the *Contract Price* will be adjusted to reflect any increase, or decrease, of *Applicable Taxes*, customs duties, and excise taxes that will have occurred between bid submission and contract award. However, there will be no adjustment for any change to increase the *Contract Price* if public notice of the change was given before bid submission date in sufficient detail to have permitted the Consultant to calculate the effect of the change.
5. Tax Withholding of 15 Percent - Canada Revenue Agency

Pursuant to the Income Tax Act, 1985, c. 1 (5th Supp.) and the Income Tax Regulations, Canada must withhold 15 percent of the amount to be paid to the Consultant in respect of services provided in Canada if the Consultant is not a resident of Canada, unless the Consultant obtains a valid waiver from the Canada Revenue Agency. The amount withheld will be held on account for the Consultant in respect to any tax liability which may be owed to Canada.

GC 23 Changes in the *Consultant* team

1. Should an entity or person named in the *Consultant*'s proposal as an entity or person who is to perform the *Services* or part of the *Services* be unable to perform or complete the *Services*, the *Consultant* shall obtain the concurrence of the *Departmental Representative* prior to performing or completing the *Services*, or entering into an agreement with another equally qualified entity or person to perform or complete the *Services*, such concurrence not to be unreasonably withheld.
2. In seeking to obtain the concurrence of the *Departmental Representative* referred to in paragraph 1, the *Consultant* shall provide notice in writing to the *Departmental Representative* containing:
 - (a) the reason for the inability of the entity or person to perform the *Services*;
 - (b) the name, qualifications and experience of the proposed replacement entity or person, and
 - (c) if applicable, proof that the entity or person has the required security clearance granted by *Canada*.
3. The *Consultant* shall not, in any event, allow performance of any part of the *Services* by unauthorized replacement entities or persons, and acceptance of a replacement entity or person by the *Departmental Representative* shall not relieve the *Consultant* from responsibility to perform the *Services*.
4. The *Departmental Representative*, with the authority of *Canada*, may order the removal from the *Consultant* team of any unauthorized replacement entity or person and the *Consultant* shall immediately remove the entity or person from the performance of the *Services* and shall, in accordance with paragraphs 1. and 2., secure a further replacement.
5. The fact that the *Departmental Representative* does not order the removal of a replacement entity or person from the performance of the *Services* shall not relieve the *Consultant* from the *Consultant*'s responsibility to meet all the *Consultant*'s obligations in the performance of the *Services*.

GC 24 Joint and Several Liability

If at any time there is more than one legal entity constituting the *Consultant*, their covenants under the Standing Offer and/or Call-Up shall be considered to be joint and several and apply to each and every entity. If the *Consultant* is or becomes a partnership or joint venture, each legal entity who is a member or becomes a member of the partnership or joint venture or its successors is and continues to be jointly and severally liable for the performance of the work and all the covenants of the *Consultant* pursuant to the Standing Offer and/or Call-Up, whether or not that entity ceases to be a member of the partnership, joint venture or its successor.

GC 25 Not Applicable

GC 26 International Sanctions

1. Persons in Canada, and Canadians outside of Canada, are bound by economic sanctions imposed by Canada. As a result, the Government of Canada cannot accept delivery of goods or services that originate, either directly or indirectly, from the countries or persons subject to [economic sanctions](http://www.international.gc.ca/sanctions/index.aspx?lang=eng) (<http://www.international.gc.ca/sanctions/index.aspx?lang=eng>).
2. The Consultant must not supply to the Government of Canada any goods or services which are subject to economic sanctions.
3. The Consultant must comply with changes to the regulations imposed during the period of the Call-Up. The Consultant must immediately advise Canada if it is unable to perform the Services as a result of the imposition of economic sanctions against a country or person or the addition of a good or service to the list of sanctioned goods or services. If the parties cannot agree on a work around plan, the Call-Up will be terminated for the convenience of Canada in accordance with terms and conditions of the Standing Offer and/or Call-Up.

GC 27 Integrity Provisions - Standing Offer

The Ineligibility and Suspension Policy (the "Policy") and all related Directives incorporated by reference into the Request for Standing Offers on its closing date are incorporated into, and form a binding part of the Standing Offer and any resulting contracts. The Consultant must comply with the provisions of the Policy and Directives, which can be found on Public Works and Government Services Canada's website at <http://www.tpsgc-pwgsc.gc.ca/ci-if/politique-policy-eng.html>.

GC 28 Code of Conduct for Procurement – Standing Offer

The Consultant agrees to comply with the [Code of Conduct for Procurement](http://www.tpsgc-pwgsc.gc.ca/app-acq/cndt-cndct/contexte-context-eng.html) (<http://www.tpsgc-pwgsc.gc.ca/app-acq/cndt-cndct/contexte-context-eng.html>) and to be bound by its terms for the period of the Standing Offer and any resulting contracts.

0000DA SUPPLEMENTARY CONDITIONS (SC)**SC1 Language Requirements**

1. Communication between *Canada* and the *Consultant* shall be in the language of choice of the *Consultant* team, which shall be deemed to be the language of the *Consultant's* proposal.
2. The *Consultant's services* during construction tender call (such as addenda preparation, tenderers' briefing meetings, technical answers to questions by bidders, including translation of bidder's questions) shall be provided expeditiously in both languages, as necessary.
3. The *Consultant's services* during construction shall be provided in the language of choice of the *Contractor*. The successful *Contractor* will be asked to commit to one or other of Canada's official languages upon award of the *Construction Contract* and, thereafter construction and contract administration services will be conducted in the language chosen by the *Contractor*.
4. Other required services in both of Canada's official languages (such as construction documentation) are described in detail in the Standing Offer 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.

SC2 Federal Contractors Program for Employment Equity - Setting aside and Default by the Consultant

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

9998DA TERMS OF PAYMENT (TP)**TP 1 Fees**

1. Subject to the terms and conditions of the Standing Offer, and in consideration for the performance of the *Services*, Canada shall pay to the *Consultant* a sum of money calculated in accordance with the fee arrangements identified herein and in 2000DA.
2. The *Consultant's* fees are only payable when the *Consultant* has performed the *Services* as determined by the *Departmental Representative*. Payment in respect of a *Service*, or part of a *Service*, is not to be deemed a waiver of *Canada's* rights of set-off at law or under this Standing Offer for costs or expenses arising from default or negligence of the *Consultant*.
3. The maximum amount payable under a Call-Up, including fees and disbursements, shall not be exceeded, without the prior written authorization of the Contracting Authority.

TP 2 Payments to the Consultant

1. The *Consultant* shall be entitled to receive progress payments at monthly or other agreed intervals, subject to the limitations of the Call-up, if applicable. Such payments shall be made not later than the due date. The due date shall be the 30th day following receipt of an acceptable invoice.
2. An acceptable invoice shall be an invoice delivered to the *Departmental Representative* in the agreed format with sufficient detail and information to permit verification. The invoice shall also identify, as separate items:
 - (a) the amount of the progress payment being claimed for *Services* satisfactorily performed,
 - (b) the amount for any tax calculated in accordance with the applicable federal legislation, and
 - (c) the total amount which shall be the sum of the amounts referred to in TP 2.2(a) and TP 2.2(b).
3. The amount of the tax shown on the invoice shall be paid by *Canada* to the *Consultant* in addition to the amount of the progress payment for *Services* satisfactorily performed.
4. The *Departmental Representative* shall notify the *Consultant* within fifteen (15) days after the receipt of an invoice of any error or missing information therein. Payment shall be made not later than thirty (30) days after acceptance of the corrected invoice or the required information.
5. Upon completion of each Call-up, the *Consultant* shall provide a Statutory Declaration evidencing that all the *Consultant's* financial obligations for *Services* rendered to the *Consultant* or on the *Consultant's* account, in connection with the Call-up, have been satisfied.
6. Upon written notice by a *Sub-Consultant*, with whom the *Consultant* has a direct contract, of an alleged non payment to the *Sub-Consultant*, the *Departmental Representative* may provide the *Sub-Consultant* with a copy of the latest approved progress payment made to the *Consultant* for the *Services*.

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7. Upon the satisfactory completion of all *Services*, the amount due, less any payments already made, shall be paid to the *Consultant* not later than thirty (30) *days* after receipt of an acceptable invoice, together with the Statutory Declaration in accordance with TP 2.5.

TP 3 Delayed Payment

1. If *Canada* delays in making a payment that is due in accordance with TP 2, the *Consultant* will be entitled to receive interest on the amount that is overdue for the period of time as defined in TP 3.2 including the day previous to the date of payment. Such date of payment shall be deemed to be the date on the cheque given for payment of the overdue amount. An amount is overdue when it is unpaid on the first day following the due date described in TP 2.1.
2. Interest shall be paid automatically on all amounts that are not paid by the due date or fifteen (15) *days* after the *Consultant* has delivered a Statutory Declaration in accordance with TP 2.5 or TP 2.7, whichever is the later.
3. The rate of interest shall be the *Average Bank Rate* plus 3 percent per year on any amount which is overdue pursuant to TP 3.1.

TP 4 Claims Against, and Obligations of, the Consultant

1. *Canada* may, in order to discharge lawful obligations of and satisfy lawful claims against the *Consultant* by a *Sub-Consultant*, with whom the *Consultant* has a direct contract, for *Services* rendered to, or on behalf of, the *Consultant*, pay an amount from money that is due and payable to the *Consultant* directly to the claimant *Sub-Consultant*.
2. For the purposes of TP 4.1 a claim shall be considered lawful when it is so determined:
 - (a) by a court of legal jurisdiction, or
 - (b) by an arbitrator duly appointed to arbitrate the said claim, or
 - (c) by a written notice delivered to the *Departmental Representative* and signed by the *Consultant* authorizing payment of the said claim or claims.
3. A payment made pursuant to TP 4.1 is, to the extent of the payment, a discharge of *Canada's* liability to the *Consultant* under a specific Call-up and will be deducted from any amount payable to the *Consultant* under any active Call-up.
4. TP 4.1 shall only apply to claims and obligations
 - (a) The notification of which has set forth the amount claimed to be owing and a full description of the *Services* or a part of the *Services* for which the claimant has not been paid. The notification must be received by the *Departmental Representative* in writing before the final payment is made to the *Consultant* and within one hundred twenty (120) *days* of the date on which the claimant
 - (1) should have been paid in full under the claimant's agreement with the *Consultant* where the claim is for an amount that was lawfully required to be held back from the claimant; or

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(2) performed the last of the *Services* pursuant to the claimant's agreement with the *Consultant* where the claim is not for an amount referred to in TP 4.4(a)(1), and

(b) the proceedings to determine the right to payment of which shall have commenced within one year from the date that the notification referred to in TP 4.4(a) was received by the *Departmental Representative*.

5. *Canada* may, upon receipt of a notification of claim referred to in TP 4.4(a), withhold from any amount that is due and payable to the *Consultant* pursuant to a Call-up the full amount of the claim or any portion thereof.
6. The *Departmental Representative* shall notify the *Consultant* in writing of receipt of any notification of claim and of the intention of *Canada* to withhold funds pursuant to TP 4.5. The *Consultant* may, at any time thereafter and until payment is made to the claimant, post with *Canada*, security in a form acceptable to *Canada* in an amount equal to the value of the said claim. Upon receipt of such security *Canada* shall release to the *Consultant* any funds which would be otherwise payable to the *Consultant*, that were withheld pursuant to the provision of TP 4.5.
7. The *Consultant* shall discharge all lawful obligations and shall satisfy all lawful claims against the *Consultant* for *Services* rendered to, or on behalf of, the *Consultant* in respect of this Standing Offer at least as often as this Standing Offer requires *Canada* to discharge its obligations to the *Consultant*.

TP 5 No Payment for Errors and Omissions

The *Consultant* shall not be entitled to payment in respect of costs incurred by the *Consultant* in remedying errors and omissions in the *Services* that are attributable to the *Consultant*, the *Consultant's* employees, or persons for whom the *Consultant* had assumed responsibility in performing the *Services*.

TP 6 Payment for Changes and Revisions

1. Payment for any additional or reduced *Services* authorized by the Departmental Representative, prior to their performance, and for which a basis of payment has not been established at the time of execution of the Call-up, shall be in an amount or amounts to be determined by the Departmental Representative, acting reasonably, subject to these Terms of Payment.
2. Payment for additional *Services* not identified at the time of execution of the Call-up shall be made only to the extent that
 - (a) the additional *Services* are *Services* that are not included in stated *Services* in the Call-Up; and
 - (b) The additional *Services* are required for reasons beyond the control of the *Consultant*.

TP 7 Extension of Time

If, and to the extent that, the time for completion of the *Construction Contract* is exceeded or extended through no fault of the *Consultant* in the opinion of *Canada*, payment for the *Services* required for such

extended period of the contract administration shall be subject to review and equitable adjustment by Canada.

TP 8 Suspension Costs

1. During a period of suspension of the *Services* pursuant to GC 7 of clause 0220DA, General Conditions, the *Consultant* shall minimize all costs and expenses relating to the *Services* that may occur during the suspension period.
2. Within fourteen (14) *days* of notice of such suspension, the *Consultant* shall submit to the *Departmental Representative* a schedule of costs and expenses, if any, that the *Consultant* expects to incur during the period of suspension, and for which the *Consultant* will request reimbursement.
3. Payment shall be made to the *Consultant* for those costs and expenses that, in the opinion of *Canada*, are substantiated as having been reasonably incurred during the suspension period.

TP 9 Termination Costs

1. In the event of termination of any Call-up pursuant to GC 8 of clause 0220DA, General Conditions, *Canada* shall pay, and the *Consultant* shall accept in full settlement, an amount based on these Terms of Payment, for *Services* satisfactorily performed and any reasonable costs and expenses incurred to terminate the Call-Up.
2. Within fourteen (14) *days* of notice of such termination, the *Consultant* shall submit to the *Departmental Representative* a schedule of costs and expenses reasonably incurred. The *Consultant* must ensure that it has mitigated its costs to the best of its ability.
3. Payment shall be made to the *Consultant* for those costs and expenses that in the opinion of *Canada* are substantiated as having been reasonably incurred after the date of termination.
4. The *Consultant* has no claim for damages, compensation, loss of profit, loss of opportunity, allowance or otherwise by reason of, or directly or indirectly arising out of, any action taken or termination notice given by *Canada* under GC8 Termination.

TP 10 Disbursements

1. Subject to any provisions specifically to the contrary in the Supplementary Conditions, the following costs shall be included in the fees required to deliver the consultant services and shall not be reimbursed separately;
 - (a) reproduction and delivery costs of drawings, CADD files, specifications and other Technical Documentation specified in the Standing Offer Brief;
 - (b) standard office expenses such as any photocopying, computer costs, Internet, cellular phone costs, long distance telephone and fax costs, including that between the *Consultant's* main office and branch offices or between the *Consultant's* offices and other team members offices;
 - (c) courier and delivery charges for deliverables specified in the Standing Offer Brief;

- (d) plotting;
- (e) presentation material;
- (f) parking fees;
- (g) taxi charges;
- (h) travel time;
- (i) travel expenses; and
- (j) local project office.

2. Subject to any provisions specifically to the contrary in the Supplementary Conditions, the following disbursements reasonably incurred by the Consultant, that are related to the Services and approved by the Departmental Representative, shall be reimbursed to the Consultant at actual cost:
 - (a) reproduction and delivery costs of drawings, CADD files, specifications and other Technical Documentation additional to that specified in the Standing Offer Brief;
 - (b) transportation costs for material samples and models additional to that specified in the Standing Offer Brief;
 - (c) project related travel and accommodation additional to that specified in the Standing Offer Brief shall be reimbursed in accordance with current National Joint Council (NJC) Travel Directive (<http://www.njc-cnm.gc.ca/directive/index.php?dlabel=travel-voyage&lang=eng&did=10&merge=2>); and
 - (d) other disbursements made with the prior approval and authorization of the Departmental Representative.
3. Disbursements shall be Project related and shall not include expenses that are related to the normal operation of the Consultant's business. The amounts payable, shall not exceed the amount entered in the Call-up, without the prior authorization of the Departmental Representative.

9999DA CONSULTANT SERVICES (CS)**CS 1 Services**

The *Consultant* shall perform the *Services* described herein and in any subsequent Call-up, in accordance with the terms and conditions of this Standing Offer.

CS 2 Standard of Care

In performing the services, the Consultant shall provide and exercise the standard of care, skill and diligence required by customarily accepted professional practices and procedures developed by professional bodies in the performance of the services at the time when and the location in which the *Services* are provided.

CS 3 Time Schedule

The *Consultant* shall:

- (a) submit in a timely manner to the *Departmental Representative*, for approval, a time schedule for the *Services* to be performed, in detail appropriate to the size and complexity of the Project, and in a format as requested by the *Departmental Representative*;
- (b) adhere to the approved time schedule and, if changes in the approved time schedule become necessary, indicate the extent of, and the reasons for such changes, and obtain the approval of the *Departmental Representative*.

CS 4 Project Information, Decisions, Acceptances, Approvals

- 1. The *Departmental Representative* shall provide, in a timely manner, project information, written decisions and instructions, including acceptances and approvals relating to the *Services* provided by the *Consultant*.
- 2. No acceptance or approval by the *Departmental Representative*, whether expressed or implied, shall be deemed to relieve the *Consultant* of the professional or technical responsibility for the *Services* provided by the *Consultant*.

CS 5 Changes in Services

The *Consultant* shall:

- (a) make changes in the *Services* to be provided for the Project, including changes which may increase or decrease the original scope of *Services*, when requested in writing by the *Departmental Representative*; and
- (b) prior to commencing such changes, advise the *Departmental Representative* of any known and anticipated effects of the changes on the *Construction Cost Estimate*, *Consultant fees*, *Project Schedule*, and other matters concerning the Project.

CS 6 Codes, By-Laws, Licences, Permits

The *Consultant* shall comply with all statutes, codes, regulations and by-laws applicable to the design and where necessary, shall review the design with those public authorities having jurisdiction in order that the consents, approvals, licences and permits required for the project may be applied for and obtained.

CS 7 Provision of Staff

The *Consultant* shall, on request, submit to the *Departmental Representative* for approval, the names, addresses, qualifications, experience and proposed roles of all persons, including principals, to be employed by the *Consultant* to provide the *Services* identified in the Call-up and, on request, submit any subsequent changes to the *Departmental Representative* for approval.

CS 8 Sub-Consultants

1. The *Consultant* shall:
 - (a) prior to any Call-up notify the *Departmental Representative* of any other sub-consultants with whom the *Consultant* intends to enter into agreements for part of the *Services* and, on request, provide details of the terms, and *Services* to be performed under the said agreements and the qualifications and names of the personnel of the *Sub-Consultants* proposed to be employed on any Call-up;
 - (b) include in any agreements entered into with sub-consultants such provisions of this Standing Offer as they apply to the *Sub-Consultants'* responsibilities; and
 - (c) upon written notice by a *Sub-Consultant*, with whom the *Consultant* has a direct contract, inform the *Sub-Consultant* of the *Consultant's* obligations to the *Sub-Consultant* under this Standing Offer.
2. The *Departmental Representative* may object to any *Sub-Consultant* within six (6) days of receipt of notification given in accordance with CS 8.1(a) and, on notification of such objection, the *Consultant* shall not enter into the intended agreement with the *Sub-Consultant*.
3. Neither an agreement with a *Sub-Consultant* nor the *Departmental Representative's* consent to such an agreement by the *Consultant* shall be construed as relieving the *Consultant* from any obligation under this Standing Offer or subsequent Call-ups, or as imposing any liability upon *Canada*.

CS 9 Cost Control

If the *services* required under a call-up are for a construction project, the following will apply:

1. Throughout Project development, the *Construction Cost Estimate* prepared by the *Consultant* shall not exceed the *Construction Cost Limit*.
2. In the event that the *Consultant* considers that the *Construction Cost Estimate* will exceed the *Construction Cost Limit*, the *Consultant* shall notify the *Departmental Representative* and

- (a) if the excess is due to factors under the control of, or reasonably foreseeable by the *Consultant*, the *Consultant* shall, if requested by the *Departmental Representative*, and at no additional cost to *Canada*, make such changes or revisions to the design as may be necessary to bring the *Construction Cost Estimate* within the *Construction Cost Limit*; or
 - (b) if the excess is due to factors that are not under the control of the *Consultant*, changes or revisions may be requested by the *Departmental Representative*. Such changes or revisions shall be undertaken by the *Consultant* at *Canada's* expense, and the cost involved shall become an amount to be mutually agreed, prior to performance of the said changes or revisions.
3. If the lowest price obtained by bid process or negotiation exceeds the *Construction Cost Limit*, and if the excess is due to reasons within the control of, or reasonably foreseeable by the *Consultant*, the *Consultant* shall, if requested by the *Departmental Representative*, and without additional charge, be fully responsible for revising the Project scope and quality as required to reduce the construction cost and shall modify the construction documents as necessary to comply with the *Construction Cost Limit*.

2000DA CALCULATION OF FEES (CF)**CF 1 Fee Arrangement(s) for Services**

1. The fee to be paid to the *Consultant* for the *Services* pursuant to any Call-up, shall be determined by one or more of the following methods:
 - (a) **Fixed Fee:**
The fixed fee will be established by multiplying the applicable hourly rate(s) by the number of hours, negotiated and agreed to by the *Departmental Representative* and the *Consultant*.
 - (b) **Time Based Fee to an Upset Limit:**
An upset limit will be established by the *Departmental Representative*, and the *Consultant* will be paid for actual work performed using the applicable hourly rate(s) for such work.
2. **Maximum Amount(s) Payable**
The maximum amount(s) that applies (apply) to the *Services* to be carried out at the fixed hourly rates shall be as specified in the Call-up, which amount(s) shall not be exceeded without the prior authorization of the *Departmental Representative* with the approval of Canada.

CF 2 Payments for Services

1. Payments in respect of the fixed fee shall be made upon satisfactory performance of the *Services* but such payments shall not exceed the amount(s) as specified in the Call-up, for each *Service*.
2. Payments in respect of the time based fee arrangement shall be made upon satisfactory performance of the *Services* but such payments shall not exceed the amount(s) as specified in the Call-up, for each *Service*.
3. Progress payments, in respect of all fee arrangements, shall be made in accordance with TP 2 in clause 9998DA, Terms of Payment, of the Standing Offer, but such payments shall not exceed the value of the fee indicated for each *Service* under consideration.
4. If, for reasons attributable to the *Consultant*, a price cannot be obtained by a tender or negotiation within the *Construction Cost Limit*, or acceptable to the *Departmental Representative* for the award of the *Construction Contract*, the *Consultant* shall be entitled to receive payment for the tender call, bid evaluation and construction contract award *Services*, only when the requirements of CS 9.3, in clause 9999DA, Consultant Services and Departmental Responsibilities, have been met.

Building Condition Report (BCR level 2) Common Terms of Reference

General 1.0 Call-Up Template

G1.1 Standing Offer Call-Up Template – Scope Definition and Fee Structure

G.1.1.2 Matrix for the Preparation of BCRs

The Required Services (RS) articles of Standing Offer Terms of Reference to follow correspond to the RS Call-Up Template matrix below.

Required Services (RS) Building Condition Report (BCR level 2)

Terms of Reference Call-Up Template:

RS #	FEE		<p>✓ : Serv, indicates a consultant service requirement as per RPF RS Project Brief/Terms of Reference.</p> <p>✓ #: See Note, indicates Consultant RS adjustment as indicated below the matrix.</p> <p>N/A : Indicates (not applicable) no consultant service requirement.</p> <p>FEE: summary to be supported by the Level of effort and schedule</p>	<u>Serv</u>	<u>See Note</u>
RS 1.0			Background Information to be reviewed	✓	
			Building Condition Report	✓	
RS 1.1		1.1	Manual Process Using Word Files	✓	
RS 1.2		1.2	Automated Process Using VFA	✓	
RS 1.3			VFA Surveys	✓	
RS 2.0		2.0	General Requirements	✓	
		2.1	Thirty-Year Window of Capital and Repair Requirements	✓	

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		2.2	Component/System list	✓	
		2.3	Requirements Structure	✓	
RS 3.0			Component/System Related Requirements	✓	
RS 3.1		3.1	Validation of the Component/System List	✓	
RS 3.2		3.2	Component/System Name	✓	
RS 3.3		3.3	Component/System Details	✓	
		3.3.1	• Expected Life Span	✓	
		3.3.2	• Last major action year	✓	
		3.3.3	• Measurement units	✓	
		3.3.4	• Quantity (of the Component/Systems)	✓	
		3.3.5	• Component/System narratives	✓	
RS 3.4		3.4	System Narratives	✓	
		3.4.1	• Component/System description	✓	
		3.4.2	• Component/System Condition & Anticipated replacement date	✓	
		3.4.3	• BCR Condition Narratives	✓	
RS 3.5		3.5	Component/System Inspection & Evaluation Criteria List	✓	
RS 3.6		3.6	Establishing Component/System Condition	✓	
		3.6.1	Establishing Service Condition factors for all Components/systems	✓	
RS 3.7		3.7	Required Component/System Photographs	✓	
RS 4.0			Event Related Requirements	✓	

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RS 4.1		4.1	Event Details	<u>✓</u>	
		4.1.1	• Brief Event Description	<u>✓</u>	
		4.1.2	• Event Narratives	<u>✓</u>	
		4.1.3	• Current Event Year	<u>✓</u>	
		4.1.4	• Estimated Event Cost	<u>✓</u>	
RS 4.2		4.2	Requirement Descriptions	<u>✓</u>	
		4.2.1	• Implication of Requirement Deferral	<u>✓</u>	
		4.2.2	• Closing a Completed Requirement	<u>N/A</u>	
RS 4.3		4.3	Requirement Event Photographs	<u>✓</u>	
RS 5.0			Asset Data Requirements as they relate to VFA	<u>✓</u>	
RS 5.2		5.2	Asset Details	<u>✓</u>	
		5.2.2	Asset Photographs	<u>✓</u>	
		5.2.3	Asset Narratives	<u>✓</u>	
		5.2.3.1	• BCR Project Team and Documents	<u>✓</u>	
		5.2.3.2	• Building History	<u>✓</u>	
		5.2.3.3	• BCR Executive Summary	<u>✓</u>	
		5.2.3.4	• Design Params & Defs – current & future	<u>✓</u>	
		5.2.3.5	• Overview of Architectural & Structure Condition	<u>✓</u>	
		5.2.3.6	• Overview Site Condition	<u>✓</u>	
		5.2.3.7	• Overview of V & H Trans Cond	<u>✓</u>	
		5.2.3.8	• Overview of Mechanical Systems Condition	<u>✓</u>	
		5.2.3.9	• Overview of Electrical Systems Condition	<u>✓</u>	

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		5.2.3.10	• Comp w Air Quality Targets	✓	
		5.2.3.11	• Regulatory Testing Confirmation	✓	
		5.2.3.12	• Compliance with Accessibility Standards	✓	
		5.2.3.13	• Overview of Seismic Screening	✓	
		5.2.3.14	• Overview of Environmental Issues	✓	
		5.2.3.15	• Overview of Project Grouping	✓	
		5.2.3.16	• Code Compliance Summary	✓	##
		5.2.3.17	• Building Performance Review		
		5.2.3.18	• Overview of Thermography Assessment Issues		
RS 6.0		6.0	Survey Inspection Process	✓	
		6.1	VFA Survey Reports	✓	
		6.2	VFA Surveys	✓	
		6.3	Interview with the Asset Management Team	✓	
		6.4	Capital versus Repair		
		6.5	Requirement Classification		

RS 7 Additional Stand Alone assessments

RS 7.0		7.0	Specialty Expert - Can be used to describe only the RS 7.0 Services in the Required Services depending on the Proponent's expertise.		
RS 7.1		7.1	Stand Alone Task 1 - Functionality and Serviceability Assessment		
RS 7.2		7.2	Stand Alone Task 2 – Seismic Analysis	✓	
RS 7.3		7.3	Stand Alone Task 3 – Criticality assessments	✓	
RS 7.4		7.4	Stand Alone Task 4 – Gap Analysis		

RS 7.5		7.5	Stand Alone Task 5 – FCI Scenario analysis – BMP cost projections	✓	
RS 7.6		7.6	Stand Alone Task 6 - AMP documentation reporting	✓	
RS 7.7		7.7	Stand Alone Task 7 – Accessibility Audit		
RS 7.8		7.8	Stand Alone Task 8 – Specialty Consulting work as per TOR		
RS 7.9		7.9	Stand Alone Task 9 – Building Capacity Assessment – Long Form		
RS 7.10			Stand Alone Task 10 – Thermography assessment reporting.		
		7.10.1	Thermal Enclosure Scan Scope and Activities		
		7.10.2	Roof Scan Scope and Activities		
		7.10.3	Mechanical and Electrical Thermal Scan Scope and Activities		
		7.10.4	Deliverables Scope and Activities		
		App. I	National Capital Ranking Policy framework	✓	
		App. II	AMP template for analysis	✓	

RS 1.0 Background Information to be reviewed

RS 1.1 Context including (Manual Process Using Word Files)

PSPC, as the service agency responsible for allocating accommodation to its' tenant departments, is accountable for effectively acquiring and efficiently managing this accommodation program.

In addressing this mandate, PSPC undertakes a series of cyclical evaluations of current and proposed accommodation. These evaluations are performed in order to determine the most appropriate management strategy for the retention, maintenance and/ or retrofit/ renewal of these facilities in order to satisfy current and future client requirements.

Given the age of the PSPC building inventory and the significant investments required to re-capitalize these assets, the importance of a rigorous analysis of the inventory through the preparation of Asset Management Plans, a financial analysis, is critical to the effective and efficient life-cycle management of this inventory.

Building Condition Reports provide the detailed technical information on which the Asset Management Plans are based. While the condition of the majority of PSPC assets has been assessed in the past, the data in the Building Condition Reports and subsequently, the Asset Management Plans, must be updated every 5 years to ensure their accuracy and to provide best support possible to managers making capital and repair investment decisions.

RS 1.2 Automated Process Using New VFA Approach

Prior to 2002 PSPC BCR's were always delivered as a paper-based report. While this approach worked reasonably well for single assets, performing an analysis to determine the overall condition of the portfolio was an arduous task.

In 2002, PSPC purchased an off-the-shelf database application to hold and summarize building condition information. This application, with the trade name "ReCAPP", was configured for use with existing business processes and named "Capital Asset Planning System" (CAPS) for use within the PSPC environment.

In 2014 CAPS was sold and replaced with an application suite known as VFA. VFA, which is expected to increase the usefulness and standardization of building condition data, will be populated with all existing BCR data.

Asset BCRs are kept current as yearly inflation updates to project costs and project completion information is entered. System generated reports permit the planning of projects at the portfolio level with the potential for cost savings by taking advantage of the economies of scale.

RS 1.3 VFA Surveys

The Primary PSPC means of gathering BCR data will now be captured using VFA Surveys in place of the CAPS Asset Validation Survey (AVS) Tool. VFA Surveys use a preconfigured Internet-based BCR Survey to capture building condition information in the field via mobile devices or on desktop computers. This survey contains all the current BCR and annual Building Performance Review (BPR) data. This is a departmental transition so the VFA actions will be refined throughout the duration of this established Standing Offer

To access the VFA Survey, the user enters a custom URL into either a mobile device or desktop browser. User assigned surveys can then be "checked-out" to the desired medium, completed offline, "checked-in", and then submitted for approval". A designated "**approver**"** is automatically notified that a survey awaits their attention. Following the approval, the asset will be updated with the BCR survey data. In the case of a rejected survey, the assessor will be automatically notified with details of the areas that require corrective action. The cycle will continue until the survey approver accepts the survey. The National Centre of Expertise (NCOE) will selectively audit approved surveys in the VFA application to validate administrative completeness.

Basic training on the use of VFA Surveys for Standing Offer Consultants, will be provided, by PSPC if and when required. However, it would be beneficial if the Consultants secure detailed knowledge of this software interface prior to the commencement of the contract services.

Note **

The approver is a PSPC official. Traditionally a BCR SME and or the Asset Manager or Technical Authority.

RS 2.0 General Requirements

This statement of work describes the work required to complete a Building Condition Report. In general, a BCR is an assessment of the condition of the components and recommended actions required to maintain the asset in operating condition during the next 30 years. The BCR covers all components on the site and in the asset organized as follows:

- Site related components;
- Architectural related components/systems
- Heritage components/systems and Character Defining Elements (CDE) where applicable in designated buildings;
- Structural components/systems;
- Horizontal and vertical transportation;
- Mechanical components/systems, and;
- Electrical components/systems.

The VFA software covers all systems on-site and in the asset, using Uniformat II, organized as follows:

1. A – Substructure
2. B – Shell
3. C – Interiors
4. D – Services
5. E – Equipment and Furnishings
6. F – Special Construction and Demolition
7. G – Building Site work

The objective of a Level 2 Building Condition Report is to investigate various building and site improvement factors including:

- Component condition and assessment of remaining life,
- Condition of character defining elements for designated heritage buildings,
- Equipment obsolescence,
- Design problems and deficiencies that adversely affect operation and maintenance activities,
- Impact of compliance with Treasury Board Secretariat temperature, humidity and ventilation standards,
- Workstation density maximums imposed by design limitations,
- Compliance with the latest edition / revision of all applicable standards & codes (including, but not limited to: Health, Fire, Life Safety Codes, National Building Code, Electrical Safety Program
- Compliance with local by-laws,
- Effective age and remaining economic life of building components (Effective age must consider implications for a designated asset and Character Defining Elements in particular),
- Confirmation of regulatory testing,
- Functionality/Serviceability Assessment (stand alone task 1 – RS 7.1),
- Seismic screening/assessment, (stand alone task 2 – RS 7.2),
- Criticality assessments (stand Alone task 3 – RS 7.3),
- BCR Gap Analysis (stand alone task 4 – RS 7.4),
- FCI Scenario building and BMP cost/project projections (stand alone task 5 – RS 7.5),
- AMP reporting using appraisal information provided by PSPC (stand alone task 6 – RS 7.6),
- Accessibility Audits (stand alone task 7 – RS 7.7),
- Specialty Consulting work outside the specified list (stand alone task 8 – RS 7.8),

- Building Capacity Assessment Long Form (stand alone task 9 – RS 7.9),
- Thermography Assessment (stand alone task 10 – RS 7.10).

The terms of reference, specific to a call-up against the standing offer, will detail the extent of work required and will indicate specific event considerations that the consultant/assessor will incorporate into the 30 year plan (e.g. heritage designation). The level of effort required could be limited to the selection of one of the "stand alone" task, up to and including investigations required for a particular BCR.

The intent of the level 2 BCR is to identify the events required to bring an asset to Class B (BOMA definition) level of accommodation and to maintain that level throughout a 30 year planning horizon. If an asset is at the Class A (BOMA definition) level of accommodation then the level to be maintained during the 30-year planning horizon is Class A (BOMA definition).

The concept of full life cycle costing for the facility is the basis for the development of the long-term capital plan. The 30-year capital plan should indicate the optimal timing / grouping of recommended events in order to minimize overall cost and tenant disruption.

RS 2.1 Thirty year window of Capital and Repair requirements

Since the PSPC BCR data is kept up to date through yearly data entry, the 25-year horizon would only be valid for one year. The number of years of valid planning data available reduces by one year for every year since the last BCR. To ensure PSPC continues to have valid 25-year forecasts of requirement costs during the five years between BCR's, PSPC requires a 30-year planning horizon.

RS 2.2 Component/Systems List

VFA uses Uniformat II, Level-3 as determined by the American Society for Testing and Materials (ASTM) to define the list of available building systems. These systems establish the level of detail required for a BCR. Once chosen for a particular asset, each system is included in the VFA Survey. System data, including lifetime and projected costs to maintain building condition, are associated with the relevant system.

RS 2.3 Requirement Structure

The VFA Requirement subclasses are the same for both Capital and Repair. The Requirement classification chosen shall reflect its primary justification (e.g. if the purpose of requirement is to remove asbestos, then the Regulatory Haz-Mat classification would be used, if the purpose of the requirement is to repair a system, then the Integrity-Reliability classification would be used). Examples to aid in classification are to be provided in an Appendix.

The requirement structure is:

- **Integrity**
 - Lifecycle - Systems that are approaching or have exceeded their useful life (e.g. a 25-year old chiller that is approaching the end of its useful life and is recommended to be replaced within the next 5 years; a 15 year old membrane roof that is prematurely aged and showing signs of wear and leaking).
 - Reliability - Systems that are not working as designed and/or cannot be depended upon, but have not yet exceeded their useful life (e.g. a recently installed mechanical control that is not operating properly or functioning in an unpredictable manner; breaches in the roof membrane or deteriorated window sealants).

- **Optimization**

- Abandoned - Systems that have been abandoned in place (e.g. old cooling tower abandoned on the roof; old oil storage tank abandoned in the basement).
- Capacity - Problems with a System's ability to meet current demand (e.g. heating equipment that cannot adequately cover its intended area).
- Energy - Conditions that adversely affect energy use (e.g. single-pane windows, lack of pipe insulation).
- Maintenance - Systems that require routine maintenance (e.g. recalibration of thermostats, cleaning of ducts, cyclical painting, other aesthetic considerations).
- Mission - Systems that do not meet the critical standards of the organization, as per guidelines provided by the client (e.g. a facility needs to be operational on a 24/7 basis, therefore redundancy/backup components need to be added; required additions/alterations associated with the conversion of a classroom facility into a dormitory; client driven security vulnerabilities).
- Sustainability - Improvements where Systems potentially have a sustainable opportunity, other than Energy based (e.g. water conservation measures; use of building materials and resources based on sustainable procurement and with recycled/bio-based content; improvement of indoor environmental quality and considerations that reduce the impact of the building and its operations on the surrounding site).
- Technological Improvements - Conditions that need to be made modern to meet current technological standards (e.g. pneumatic to DDC; non-energy based upgrades).

- **Regulatory**

- Accessibility - Conditions that violate accessibility guidelines (e.g. non-accessible building entrances, plumbing fixtures, or door hardware).
- Building Code - Conditions that violate applicable federal, provincial, regional and municipal regulatory requirements (e.g. lack of backflow protection, insufficient ventilation).
- HazMat - Regulatory issues associated with Asbestos, Lead, PCB, and other situations in which hazardous materials are known or suspected to be present in the Asset (e.g. suspected asbestos pipe insulation or floor tiles).
- Life Safety - Conditions that pose an immediate danger to human life or safety (e.g. blocked emergency egress, dead-end corridors, damaged and/or non-functional fire protection or emergency Systems).

The majority of requirements are usually classified in "Integrity" and a sub classification of Reliability or Lifecycle.

RS 3.0 Component/System Related Requirements

This section describes the work that the consultant/assessor will perform at the component level when producing a BCR.

RS 3.1 Validation of the Component/Systems List

The VFA Survey for any asset contains a system list specific to its building and site improvements. To ensure the BCR will cover the entire asset, the first task in writing a BCR shall be to validate the existing system list. The existence of each system in the list shall be confirmed by visual confirmation at the building and site. Use the master system list in VFA Survey as a guide to establishing the granularity to which the building will be broken down. Systems in this list, but not found in the building shall be deleted.

Misclassifications (e.g. B1021 Flat Roof Construction instead of B1022 Pitched Roof Construction) shall be reclassified correctly. Systems in the building but missing from the building system list shall be added.

RS 3.2 Component/System Name

There is one system level description field associated with each system. If a narrative already exists, then it shall be reviewed and modified to reflect the current situation. This description field has a character limitation of 4,000 characters therefore narratives should be brief, concise and current to reflect BCR assessment.

RS 3.3 Component/System Details

Associated with each component listed, there are several component details that shall be reviewed and updated as necessary. These details are:

- Expected life
- Component/System Cost (if a replacement event is included)
- Quantity (quantities associated to all the components/systems covered in the 30year horizon)
- Measurement units to use for the quantity field above
- Last Major Action Year

The definition and requirements for each field are listed below:

RS3.3.1 Expected life span

The expected life span of a component is an estimate of the number of years a component will last, from brand new, before it must be replaced or rehabilitated. See RS 2.0 regarding Heritage designated buildings.

RS3.3.2 Last Major Action Year

The last major action year for a component is the last year the component was replaced or renovated to the point where its' expected life is now as long as if it were new. The consultant/assessor will update this field for each component in the asset as part of the BCR. If the last major action year is not known, then it shall be determined by subtracting the expected life for that component from the year the next replacement or renewal renovation is recommended. If the component has never been replaced, the consultant/assessor will use the year of construction as the last major action year for that component.

RS 3.3.3 Measurement Units

Select the appropriate measurement unit for the quantity number entered in the field above. Selections required by the costing tool are:

- | | |
|-------------|--|
| - Bhp | Boiler capacity is specified in Boiler Horse Power |
| - cool tons | Air Handling Unit cooling capacity is specified in cool tons |
| - ea | Number of units (e.g. doors, fixtures, etc.) |
| - flts | The number of flights of stairs in the building |
| - Hp | The total horsepower of the HVAC pumps |
| - level | The number of levels an escalator rises/drops |
| - ltr | Size of tanks in liters |
| - m | Length of a component in meters |
| - m2 | Area of a component in square meters |
| - pt | Total number of sensing and control points in a control system |

- seat	Total number of seats (e.g. bleachers)
- ea	The number of stops (floors) an elevator services
- sum	Total cost of the unit (e.g. traffic control system)

If the correct units are missing from the VFA data, make reference to the correct units in the Component/System description narrative field.

RS 3.3.4 Quantity (of the component/system)

The quantity of the element or component/system in the building shall be determined for replacement cost estimating purposes. Distance, area and volume measurements shall be measured using the metric system. These values are required to calculate component replacement costs.

RS3.3.5 Component/System Cost

The Replacement Cost of each system shall be automatically populated in the survey based on its Quantity and Unit Cost. If this cost is inaccurate, an Adjustment Factor is available to the assessor to modify.

RS 3.4 Component Narratives/System Descriptions

There is one system level description field associated with each system. If a narrative already exists, then it shall be reviewed and modified to reflect the current situation. This description field has a character limitation of 4,000 characters therefore narratives should be brief, concise and current to reflect BCR assessment.

RS 3.4.1 Component/System Description

The description of the component or system should include:

- Component/System name
- Year installed
- Basic Description (i.e. description of wall assembly, window, roof type, make/model of equipment)
- The location of the component/system
- The quality of the component/system (excellent, good, average, fair, poor)
- The capacity or performance of the component/system
- The replacement cost
- Identification of Character Defining Elements

This information is to be recorded against the component or system and carried forward in the executive summary.

RS 3.4.2 Component/System Condition and Anticipated Replacement Date

This narrative field should include:

- An assessment of the impact of each of the components deficiencies on the component's remaining life
- Quality and service conditions that will lengthen or shorten the component's expected life span, for example:
 - i. Below average quality component
 - ii. Inappropriate component or system design
 - iii. No longer supported by the supplier
 - iv. Inadequate maintenance
 - v. Inadequate performance
 - vi. Damage from external sources
- The rationale for component's condition rating (Excellent, Good, Average, Fair or Poor).
- The year the component/system was last replaced and establishment of the next replacement or rehabilitation date.
- An overview of the component's/system's condition and the recommendations/predictions for future repair and replacement projects. (Details of particularly damaged components/systems should be provided in the format of the matrix below in section 3.6 which can be captured in VFA as a PDF file attachment with a reference flag within the event description narrative field)

RS 3.4.3 BCR Condition Narrative

If, during the last Building Performance Review (BPR), one or more components were considered operationally unsatisfactory, the BPR team will have given each of those component an "unsatisfactory" status and filled in this narrative field describing the reason why. The consultant/assessor will review this narrative field for each "unsatisfactory" component and recommend and cost a course of action to rectify the problem described in the form of an event. Discussions with the Property Management team shall be held to ensure the consultant/assessor fully understands the problem described for each "unsatisfactory" component. Include conservation advice from conservation professionals for designated buildings.

RS 3.5 Component/System Inspection and the Component Evaluation Criteria List

Each component in the AVS tool has a list of possible deficiencies associated with it. As part of the inspection process, the deficiency list for each component shall be reviewed and those deficiencies found to be present identified by a mouse click in the default box for each one. A note/narrative can be entered to further explain the deficiency.

RS 3.6 Establishing Component/System Condition

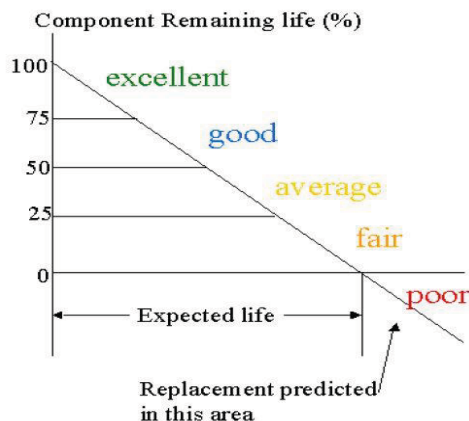
The first step in establishing the condition of a component is to decide on a component's remaining life. The remaining life shall be determined by considering the following factors:

- Age of the component
- Character Defining Elements in Designated Buildings
- Component expected life

- Identified deficiencies
- The component service conditions including duty cycles, weather conditions, hours of operation.
- Maintenance practices
- Obsolescence
- Operational or functional performance problems

Then, as a result of the inspection process the condition of each component shall be determined as "excellent", "good", "average", "fair" or "poor". For purposes of consistency, each of these five possible conditions is related to the remaining life of a component divided by its expected or theoretical life expressed as a percentage. The following chart can illustrate how this works at a basic level.

Note: Percentages at the boundaries between two conditions shall link to the condition below the boundary. (e.g. 50% of life remaining would imply average condition).



Note: Even though the component's/system condition rating has been established as (Good, Fair, Poor). Certain Components/Systems require additional scrutiny to a UniFormat II **Level 4** based on the industry standard Uniformat II – ASTM. The greater the matrix score the better the condition so use this additional scrutiny to re-confirm the system status before placing the narrative in the system status description.

Total Number of Score Available Per Component/System is 1 to 10 - Weight Factor Range is 1 to 15

Maximum Total Weighted Points 1200

- Between 700 and 1200 Points = Good Condition
- Between 400 and 700 Points = Fair Condition
- Less than 400 Points = Poor Condition

	<u>Criteria</u>	<u>Description</u>	<u>Score</u>	<u>Weight</u>	<u>Total</u>
				<u>Factor</u>	<u>Weighted</u>
					<u>Points</u>

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1	% of Remaining economic life	Less than 25% of L/C = 10 Between 26% and 50% of L/C = 9 Between 51% and 75% of L/C = 7 Between 76% and 100 % of L/C = 4 Exceeded 100% of LC = 3 Exceeded 125 % of LC = 2 Exceeded 150% of LC = 1		3	
2	Equipment parts obsolescence	Parts available = 10 Parts are becoming rare = 7 Parts can be custom made = 3 Parts not available = 1		4	
3	No longer supported by the supplier	Still supported by supplier = 10 Supplier support diminishing = 7 Alternate support available = 3 No Support = 1		4	
4	Design problems & deficiencies (DP&D)	No (DP&D) = 10 Minor (DP&D) = 7 Major (DP&D) = 3 (DP&D) cannot be fixed = 1		4	
5	Operational performance problems	No operational problems = 10 Minor operational problems = 7 Major operational problems = 3 Doesn't meet requirements = 1		5	

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6	Functional performance problems	No functional problems = 10 Minor functional problems = 7 Major functional problems = 3 Doesn't meet requirements = 1		5	
7	Code Compliance	Code compliant = 10 Minor code problems = 7 Major code problems = 3 Immediate H/S code problems = 1		5	
8	Confirmation of regulatory testing,	Yes = 10 No = 1		6	
9	Maintenance practices	Reactive = 1 Scheduled PM = 5 Enhanced PM = 10		6	
10	Design problems and deficiencies that affect O&M activities	Yes = 1 Yes minor = 5 No = 10		4	
11	The component in service conditions	Low service conditions = 10 Medium service conditions = 7 High service conditions = 3 Extreme service conditions = 1		3	
12	State of repair or damage	Poor needs attention = 1 Poor = 3		10	

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		Fair needs attention = 5 Fair = 7 Good = 9 Excellent = 10			
13	Aesthetic Appearance	Pleasing = 10 Not pleasing = 1		3	
14	Environmental (releases, GHG emissions, energy)	Low risk = 10 Med risk = 5 High risk = 1		3	
15	Demand Capacity	Yes met = 10 Pressured = 5 Not met = 1		5	
16	Industrial History of Unit	Yes history of Problems = 1 Average history of problems = 5 No history of problems = 10		10	
17	History of Leaks, Failures, shutdowns (events)	Yes = 1 No = 10		10	
18	More Reliable Technology Exists	Yes = 0 No = 10		2	
19	Provincial or Federal Policy Drivers	Yes = 1 No = 10		4	

20	Consultants Condition Judgment (Knowledge & Experience)	Overall condition poor = 1 Overall condition fair = 5 Overall condition good = 10		15	
				TOTAL	

RS 3.6.1 Establishing Service Condition factors for all Components/systems.

- Once the component condition is established to suit the basic overview, the Consultant shall address additional specifics on the Component Conditions to be able to minimize the Risk to the Management and Operations of the Portfolio by the Owner Investor.

Specifically evaluating assessed components of the building for Operational Criticality :

Take the completed BCR Asset Tracker & reports of the building to create as follows:

- Focus on the Unifomat level 4 list of components for this exercise and review all the narratives and component/system conditions on the Asset Tracker spreadsheets.
 - Assess the condition of the building component/systems as determined under the category of "Event / Requirement Listings", then indicate the component's/system's remaining life. There are hundreds of sub-components that affect the Criticality status of the building so ensure to group the categories to suit the "ASTM Unifomat II classification for Building Elements" . Establish the sub-elements as per the ASTM Standard and NISD standard structures.
 - Review the "Priorities", and "action required" timelines in the Narratives as well as all the available supporting studies provided by the Asset in the format of a Criticality assessment as described below.
 - Provide each line to represent each of the required components to be assessed. Additional sub-categories may be deemed necessary as the process begins.

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
Unifomat Level 4 – Required Component review headings.															
Unifomat identification number															

Create the summary chart for inclusion in the final criticality assessment report.

2. Provide from left to right 15 columns each representing 1 year of the 15 year life cycle span.
3. Where each row (system component) intersects a year we will insert a value which represents the systems/ component condition. The condition value will comprise two factors;
 1. These factors applied together consider health and safety/continuity of operation/ asset threat and regulatory compliance.
 4. Good condition (score 5)
 5. Low risk of failure (score 4)
 6. Medium risk – but near end of life – less than 5 years remaining (score 3)
 7. Critical condition – high risk of failure (score 2)
 8. System failed (score 1)
9. Produce a heat map broken down into three distinct horizons (i.e. **1-5 years, 6-10 years, 11-15 years**) per high level system where each distinct horizon will be colour coded to reflect the following as applicable:
 - .1 **Black** = Already failed and needs immediate action
 - .2 **Red** = Imminent Timeline Failure
 - .3 **Yellow** = Deferred Intermediate Timeline Failure
 - .4 **Green** = Deferred Long-Term Timeline Failure
10. Once this chart is generated, the conditions as colour coded need to be rated in terms of criticality within the component category. This determines the true criticality relative to the overall Asset condition. Multiply the rating factor on the chart by the specific condition rating described below to get a new criticality value.
11. The final criticality assessment value provides for the highest criticality of renewals and condition of the building elements. The heat map will now have a change in colour coding for the building systems on the 15 year planning horizon where **0 to 30 points are in red** for the highest criticality of renewal, **31 to 70 points in yellow** for medium, and **71 to 100 points in green** for low.
12. The scoring of the major component categories will comprise of 4 scoring categories at a maximum of 25 points each under the four factors listed above. **Health and safety, Continuity of operation, Asset threat and Regulatory compliance.**
13. **(4 x 25points = 100 points maximum).**

Health and Safety (Criterion 4 – Health & Safety)	
Description	Condition Rating

No exposure to hazards or injuries.	5
No exposure to hazards under normal operation.	4
Minor exposure to hazards and/or non-disabling injury.	3
Significant exposure to hazards and/or non-disabling injury.	2
Definite exposure to hazards capable of causing disabling injury or death. Immediate action required.	1

Continuity of Operations (Criterion 2 – Strategy)	
Description	Condition Rating
Failure of component/system can be corrected with minimal effect upon the users of the asset. Repairs can be undertaken without significant disruption to workspace during normal working hours.	5
Failure of the component/system can be corrected with minimal effect upon the users of the asset during normal working hours, however users may experience disruptive noise and activity in their general vicinity for an extended period.	4
Failure of the component/system cannot be corrected without evacuating a portion of the building for a brief period.	3
Failure of the component/system cannot be corrected without evacuating a portion of the building for an extended period.	2
Failure of the component/system cannot be corrected without evacuating the entire asset for an extended period.	1

Threat to Asset (Criterion 2 – Strategy)	
Description	Condition Rating
No exposure to hazards. Condition of the component/system has no relationship to the physical integrity of the asset.	5
Minor exposure to hazards under normal operations.	4

Some exposure to hazards. Failure of the component/system may have deleterious, localized effect on the physical integrity of the asset.	3
Major exposure to hazards.	2
Extreme exposure to hazards. Failure of the component/system has immediate and profound effect on the overall physical integrity of the asset.	1

Regulatory Compliance (Criterion 2 – Strategy)	
Description	Condition Rating
Component/system is fully compliant with current/fire codes and standards.	5
Component/system is partially compliant with applicable codes and standards.	4
Component/system has been identified as not compliant with applicable codes and standards.	3
Component/system is not compliant with applicable codes and standards, and has been identified as a life safety concern by authorities having jurisdiction.	2
Component/system is not compliant with applicable codes and standards, and authorities having jurisdiction have identified it as a major life safety threat. Immediate action is required.	1

The Consultants assigned to each Asset is already looking at the components and the rest of remaining life so there is an advantage to target a baseline of the findings to a common standard. This standard needs to be expressed by means of an FCI calculation for three of the six Criteria under the “National Capital Project Priority Ranking Policy”.

<http://www.tpsgc-pwgsc.gc.ca/biens-property/sngp-npms/bi-rp/livra-deliv/invest/iar-eng.html>

Based on a fiscally tight environment where the renewal needs are to be tiered according to levels of **Criticality**, the three Criteria of six identified in the National Capital Ranking Policy that directly impact Asset Planning Criticality are:

Criterion 2 – Strategy

Criterion 3 – Timing**Criterion 4 – Health & Safety**

Asset assessments will focus on **Criterion 4 “Health and Safety”** which by default will also address **“Threat to the Asset and Continuity of Operations”**. The Life Cycle timeline in our Criticality (Stand Alone) assessment scope of work will give the timing within a 15 year window and allow for integrated planning strategy according to the Asset Tracker and Criticality Heat Map.

RS 3.7 Required Component/System Photographs

To give a better understanding of the asset, the consultant/assessor will always include as many photographs (up to six) as it takes to adequately describe the condition of the component being reviewed.

The Consultant shall provide at a minimum photographs of every component/system in the entire Asset. For Components/Systems with multiple types, one photograph is inadequate e.g. one photo for an asset with stone and brick and other masonry cladding is not acceptable. Provide at least one photo for each type of cladding material which can be sub-categories to the Component/System.

These photograph files, as well as those specified elsewhere in this document, must be:

- .JPG or .JPEG files.
- Less than 2 MB.

VFA Auditor includes advanced Photo Management functionality allowing users to link multiple photos to an Asset, System, and Requirements. Users have the option to link photos directly from a mobile device camera or select from a camera roll or photo folder. Position the subject matter in the photo as such that it is close enough to clearly present the required details of the component and the issue, if any, yet show surrounding detail so that the photo location can be confirmed.

RS 4.0 Event Related Requirements

Once the process of evaluating a component's condition has been completed, the recommended replacement or repair events shall be entered into the AVS application.

When generating a report in the AVS application, the number entered into the component data field labeled “expected life” determines the component lifecycle. PSPC has decided to make use of this feature. Therefore the consultant/assessor will only enter one lifecycle (expected life) worth of repair events and replacement events into the AVS tool.

RS 4.1 Event Details

The event details listed below shall be validated and entered or updated in the AVS file for every new or existing event.

RS 4.1.1 Brief Event Description

This description is used in VFA reports and should therefore be as short and concise as possible, preferably no more than 40 characters. (e.g. replace roof, repair boiler, etc.)

RS 4.1.2 Event Narratives

There are three event narratives associated with each event. Each of these narratives is listed below along with a description of the content required for each.

Event Description

The following information shall be included in every event description:

- A full description of what is to be done (include advice from conservation consultants and conservators as required for Character Defining Elements)
- The results expected from event implementation
- If the PSPC costing tool is not used to calculate component replacement events, describe why and provide costing breakdown.

Event Justification and Strategy

The following information shall be included in this narrative field:

- Any pertinent background information
- Rational for why the event is required.
- List of what deficiency(ies) the event correcting or enhancement is it providing.
- Indicate any potential for cost savings, increased performance, changes in function, reduction in energy consumption, greater code compliance, and increased accessibility.
- Identify Character Defining Elements of heritage designated buildings and seek advice from a heritage professional
- How the event should be carried out; steps required
- Indicate if it would be better to wait for a particular time of year?
- Will the tenants be disrupted?
- Describe the precautions that should be adhered to, to minimize impact on the tenant and building operations.
- List other events that should be grouped with this event and implemented together.

Implication of Event Deferral (Risks)

The answers to the following questions shall be included in this event narrative:

- What will be the impact on asset operations if the event is delayed?
- Will there be any additional degradation (cost) if the event is delayed?
- Does it involve a Character Defining Element(s)
- What is the potential impact of other components if the event is delayed?
- What is the impact on the tenants' health and working environment if the event is delayed?
- What is the impact on other related events/projects?

RS 4.1.3 Current Event Year

The recommended year of event implementation shall be validated and provided in the report.

RS4.1.4 Estimated Event Cost

In VFA, the replacement costs are automatically populated. However, the Consultant is expected to look at the condition ratings and remaining life to be able to adjust accordingly. Alternatively, the total estimated event cost at a Class D accuracy (Indicative cost estimate within 20% accuracy), in current year dollars, shall be validated and provided as detailed in the paragraphs below.

The budget estimations shall be developed using R.S. Means and the SOA Consultant's cost data experience with previous similar projects. If the project is deemed critical, the Departmental

Representative reserves the right to have a Cost Consultant mandatory in the contract for third party verifications that are acceptable to the Crown.

The budget provided shall include – at a minimum - demolition, mobilization, material, labour, soft costs such as engineering, project management and contingency as applicable to the event or project. The event budget breakdown percentages are customized to scope of work of each event; however typical event budgets in the Report should be in the range as follows:

1. Labour and materials – 60%
2. Contingency – 15%
3. Soft costs – 25%

Note that the Current Replacement Value (CRV) and the event costs should be determined based on different approaches. The CRV for the building is the total amount of expenditure in current dollars required to replace the asset and meet the current acceptable standards of construction, and comply with regulatory requirements. The CRV at the component level is an approximate cost contribution at component or system level to the total CRV. The event costs are event scope specific and cannot be compared with the CRV. The renewal budget includes an inflation of two (2%) percent which is added per year from 2015 to 2043 which is based on the past ten (10) year historic average. The budget typically should not include applicable taxes.

RS 4.2 Requirement Descriptions

In VFA there is one description field associated with each Requirement as detailed below along with a description of their required content.

The following information shall be included in every Requirement description:

- A full description of what is to be done;
- The expected results;
- The justification and strategy, including the following details;
 - Rational for why the event is required.
 - List of what deficiency(ies) the event correcting or enhancement is it providing.
 - Indicate any potential for cost savings, increased performance, changes in function, reduction in energy consumption, greater code compliance, and increased accessibility.
 - How the event should be carried out / steps required.
 - Indicate if it would be better to wait for a particular time of year.
 - Identify potential tenant disruptions.
 - Describe the precautions that should be adhered to, to minimize impact on the tenant and building operations.
 - List other requirements that should be grouped with this event and implemented together.

RS 4.2.1 Implication of Requirement Deferral

In VFA the answers to the following questions shall be included in the description field:

- What will be the impact on asset operations if the event is delayed?
- Will there be any additional degradation (cost) if the event is delayed?
- What is the potential impact of other systems if the event is delayed?

- What is the impact on the tenant's health and working environment if the event is delayed?
- What is the impact on other related requirements/projects?

RS 4.2.2 Closing a completed requirement

In VFA the PSPC (PWGSC) Assessor/PSPC Responder is to "Close" Requirements that are 100% complete. When reviewing an overdue/deferred Requirement, it is imperative that the assessor does not close it unless the issue has been 100% completed and resolved. In the case of overdue/deferred Requirements where the details are inaccurate, the assessor shall modify the details. Deleting an overdue/deferred Requirement and creating a new one skews FCI and related calculations resulting in a false picture of asset condition. The assessor can split a requirement to show that 30% of the requirement has been completed thus leaving 70% open.

RS 4.3 Required Event Photographs

In addition to the photographs required under RS 3.7, a photo shall be included if:

- There is visual evidence of damage or wear.
- There is a visually evident health or safety risk.
- There is a visually evident code or directive compliance issue.
- The photograph will help explain the requirement implementation strategy.
- Visual evidence is required to explain the requirement implementation strategy.

RS 5.0 Asset Data Requirements as they relate to VFA

The asset data requirements for a BCR are described in this section.

RS 5.2 Asset Details

There is only one asset detail to be filled in; "Date of Most Recent Assessment". The date the BCR will be completed shall be entered into this field.

RS 5.2.2 Asset Photographs

The assessor will include a recent photograph of the front of the building and a description, including building name and location.

Refer to RS 3.7 for photograph specifications.

RS 5.2.3 Asset Narratives

Note that all VFA narrative fields are limited to 4,000 characters, which equates to around one page of text. In cases where existing narratives exceed this limitation, the content will be truncated; however its full content will be available in a document attached to the asset for first time review and update in VFA. All narrative fields must be updated when updating a BCR in VFA.

RS 5.2.3.1 BCR Project Team and Documents

Include the following information:

- Brief introduction identifying initiation details and requested scope.

- List of participants (inspection team members, asset staff, others), including: name, discipline, company, date of site visit.
- Limitations on liability.
- List of documents reviewed.
- List of drawings reviewed.
- List of other information reviewed.
- List of reference documents (codes, policies, standards, etc.).

RS 5.2.3.2 Building History

Include the following information:

- Original design information, including facility type/use, size (storeys/levels), date and designer.
- Original construction information, including completion date, contractor, and supervision.
- Subsequent addition(s) information, including dates, type/use, size (storeys/levels), designer, contractor, supervision, and date(s).
- Major alteration/renovation information, including dates and brief scope(s).
- Changes in the facility use and/or occupancy.
- Heritage status.

RS 5.2.3.3 BCR Executive Summary

Include the following information:

- A brief summary of the asset, including: municipal address, name (if applicable), current use, and heritage status.
- A brief summary of the building, including: location/orientation on the site, number of storeys above grade, other storeys (i.e. below grade and/or rooftop penthouses), construction (frame and exterior walls), and gross floor area.
- A brief summary of the site, including: size, surrounding features (streets, development, etc.), paved vehicle areas, and other significant site improvements.
- List of Federal tenants.
- List of private sector and 3rd party tenants.
- Custodial department.
- Property management provider(s).
- An overall assessment of the condition of the asset and provide an estimate of its remaining service life.

RS 5.2.3.4 Design Parameters & Deficiencies – current & future

Review and modify as necessary preamble for design/performance – provided.

If a Functionality/Serviceability assessment has been carried out since the last BCR was completed:

- Review the identified serviceability issues.
- Provide under this heading in the VFA Survey a written overview describing the issues reviewed and the recommended corrective actions.
- Create and enter Requirements into the BCR Survey for each recommended corrective action.

If a Functionality/Serviceability Assessment has not been completed, elements that received an unsatisfactory rating during the last BPR shall be considered as the source of serviceability issues:

- Review the identified serviceability issues for each unsatisfactory element.

-
- Provide under this heading in the BCR Survey a written overview describing the issues reviewed and the recommended corrective actions.
 - Create and enter Requirements into the VFA Survey for each recommended corrective action.

See 5.2.16 Building Performance Review for instructions on how to process the information provided and what to add to this narrative field.

For the parameters listed below, the assessor will compare the maximum capacities against those required for the current workstation density, and any workstation density proposed for the future and make recommendations to overcome any physical or code limiting factors (excluding floor area).

If a workstation density for the future is not provided, use the maximum number possible. The maximum possible number of workstations can be calculated by dividing the usable area of the building by the target area allowed per workstation, as per the PWGSC Workplace 2.0 fit-up standard.

The parameters are:

Maximum floor loading;

- Maximum heating capacity;
- Maximum cooling capacity;
- Maximum electrical capacity;
- Elevator capacities;
- Washroom capacities;
- Emergency exit stairwell size.

RS 5.2.3.5 Overview of Architectural & Structure Condition

Provide overviews of the condition and recommendations for the various architectural systems (substructure, shell, interiors, and equipment and fittings), including for each:

- General description.
- General overall condition and performance.
- Any notable exceptions in condition and/or performance.
- Any significant (high cost, health/safety, etc.) elements identified for correction in the short-term.
- General long-term outlook.

RS 5.2.3.6 Overview Site Condition

Provide overviews of the condition and recommendations for the various site systems (site elements, landscaping, and pavements), including for each:

- General description.
- General overall condition and performance.
- Any notable exceptions in condition and/or performance.
- Any significant (high cost, health/safety, etc.) elements identified for correction in the short-term.
- General long-term outlook.

RS 5.2.3.7 Overview of Vertical & Horizontal Transportation Condition

Provide an overview of the condition and recommendations for the vertical/horizon transportation systems, including:

- General description.

- General overall condition and performance.
- Any notable exceptions in condition and/or performance.
- Any significant (high cost, health/safety, etc.) elements identified for correction in the short-term.
- General long-term outlook.

RS 5.2.3.8 Overview of Mechanical Systems Condition

Provide an overview of the condition and recommendations for the mechanical systems, including:

- General description.
- General overall condition and performance.
- Any notable exceptions in condition and/or performance.
- Any significant (high cost, health/safety, etc.) elements identified for correction in the short-term.
- General long-term outlook.

RS 5.2.3.9 Overview of Electrical Systems Condition

Provide an overview of the condition and recommendations for the electrical systems, including:

- General description.
- General overall condition and performance.
- Any notable exceptions in condition and/or performance.
- Any significant (high cost, health/safety, etc.) elements identified for correction in the short-term.
- General long-term outlook.

RS 5.2.3.10 Compliance with Air Quality Targets

Provide an overview of the indoor air quality in regard to the "TBS Occupational Health and Safety Directive, Appendix A – Temperature and Humidity Targets" and "RPB Standard MD 15000 Mechanical Environmental Standard for Federal Office Buildings, Appendix B – Indoor Air Quality, including:

- Preamble for IAQ – provided.
- Identification of any previously completed IAQ assessment.
- Identification of any previously identified IAQ issues.
- Recommendations for action if necessary - create and enter Requirements into the VFA Survey for any recommended corrective action.

RS 5.2.3.11 Regulatory Testing Confirmation

Provide an overview of the on-site regulatory testing and inspection, including:

- Preamble for regulatory testing and inspection – provided.
- List of regulatory testing and inspection records found and reviewed on-site.
- List of regulatory testing and inspection records not found on-site, and reason why.
- List of regulatory testing and inspection not performed, and reason why.
- Recommendations for remedial action if necessary and the reasons for omission.

RS 5.2.3.12 Compliance with Accessibility Standards

Provide an overview of the status and level of accessibility, including:

- Preamble for accessibility in Federal Crown property – provided.
- Compliance levels as determined in the most recently completed accessibility audit.
- List of identified areas of non-compliance.
- List of any recorded exemptions.
- List of any upgrades to accessibility implemented since completion of the last audit.
- Recommendations for remedial action if necessary - create and enter events into the VFA Survey for each recommended corrective action.

The overview of the standard is to be preceded by a detailed review as described below to be entered in the Accessibility Audit template.

If included as part of the Standing Offer call-up, the consultant shall complete the Accessibility Audit template to be provided by the Departmental Representative, by comparing the current asset configuration against the requirements specified by the 2006 Treasury Board Accessibility Standard for Real Property policy available at the web site listed below.

Accessibility Requirements of the Treasury Board Accessibility Standard for Real Property or subsequent editions

<http://www.tbs-sct.gc.ca/pol/doc-eng.aspx?id=12044§ion=text>

CAN CSA B651-12, Accessible Design for the Built Environment Standards (confirm with PSPC the technical standard(s) that is to be referenced prior to commencement of the Building Condition Report).

Once the template has been completed, the consultant shall enter the recommended Requirements against the relevant systems in the VFA Survey. The year event implementation is recommended and Class "C" cost estimates (within 15% accuracy), including the soft costs as specified in the Requirement costing section shall be included. Other Requirement details and the two narrative fields shall be entered as previously described.

The completed template shall be delivered to PSPC in Microsoft Word 2000 or higher format.

RS 5.2.3.13 Overview of Seismic Screening

Provide an overview of the seismic status, including:

- Preamble for seismic resistance in PWGSC buildings – provided.
- Identification of any previously completed seismic assessment (initial screening and/or subsequent evaluation).
- Identification of the subject area and its seismic rating.
- Recommendations for action if necessary - create and enter events into the VFA Survey for any recommended corrective action.

TOR Scope description for Seismic Screenings

A seismic screening shall be carried out in accordance with NRC's "Manual for Screening of Buildings for Seismic Investigation". The screening shall include a site review, a review of available existing building drawings/reports and the submission of the completed NRC Seismic Screening Form. The

form is to contain a photograph of the building, relevant sketch (es) and a completed comments section indicating notable observations and any qualifications used in determining the Structural Priority Index (SPI) score. Comments by consultants should not be limited by the space available on the form. It is recommended that a separate write-up describing relevant observations during the review be included. If, for the specific type of building, significant changes have been made in the seismic provisions of the new 2015 National Building Code of Canada, a brief paragraph describing the nature of the changes shall be included in the comments. A provincially registered professional engineer (structural) shall stamp the Seismic Screening Form with his seal.

Context of Screening Results

The SPI score indicates deviation by contributing seismic factors to current seismic construction practices. It is not a detailed assessment and does not identify the level of specific building vulnerabilities. NRC suggests SPI scores be used for evaluation and planning purposes on the following basis:

- less than 10: low priority for further evaluation;
- between 10 and 20: medium priority for further evaluation;
- between 20 and 30: high priority for further evaluation;
- higher than 30: can be considered an exceptional risk.

Note: It is understood that NRC's "Manual for Screening of Buildings for Seismic Investigation" was based on NBCC 1990. Should a new screening document based on an updated version of the current NBCC become available, PSPC may require the screening to be carried out in accordance with both the NRC Manual and the new document.

TOR Scope description for Detailed Seismic Assessment

A detailed Seismic Assessment shall include:

1. A gathering and review of existing plans and other documentation on the building;
2. A review of the building's main structural resistance system and elements to both the applicable provincial code, and the NBCC 2015 seismic requirements;
3. Performing relevant on-site investigations and a condition survey of existing elements;
4. Involvement of a geotechnical engineer to address site classifications and foundation requirements;
5. A detailed structural analysis, in accordance to the applicable provincial code and the NBCC 2015, taking into account the proposed alterations and building occupancy;
6. Review of operational and functional systems (i.e. non-structural elements) as it relates to operational and life safety requirements. These include, but are not limited to building systems such as canopies over exit ways, partitions in corridors and stairwells, roof parapets, mechanical and electrical systems, ceilings, and cladding at access/egress locations.;
7. Submission of a seismic assessment report including an evaluation of the sufficiency of the main building structure expressed as a percentage of the applicable provincial code, and the NBCC 2015. The report is also to include an assessment of the non-structural elements identified in 6.

The bulk of the seismic assessment will be done by a structural engineer, but other disciplines (e.g. geotechnical/electrical/mechanical/elevator/architecture) may be required to help coordinate with discipline-specific issues as required. Documents such as NRC's "Guidelines for the Seismic Evaluation of Existing Buildings" and CSA-S832-2014 "Seismic Risk Reduction of Operational and Functional Components of Buildings" shall be considered as reference documents.

Options assessment for seismic upgrades

If the main building structure does not meet 60% of either the applicable provincial code (while it continues to be based on NBCC 1995), or of NBCC 2015 requirements for new construction, upgrade options and approaches are to be investigated, so as to upgrade the seismic resistance of the main structure to at least the 60% level, but preferably to the 100% level. The optimal level of upgrade shall be selected based on financial, functional, operational, security and client requirements. Incorporation of practical aspects of the building alteration is to be carefully considered. New and emerging technologies are also to be carefully considered. Upgrade options for non-structural items are also to be investigated. Options, cost estimates and recommended seismic upgrading approaches are to be documented.

Reference documents such as NRC's "Guideline for Seismic Upgrading Techniques of Building Structures" and the "CSA-S832-2014 Seismic Risk Reduction of Operational and Functional Components of Buildings" are considered as reference documents.

- Selection of an upgrade option (whether 60%, 100% or other level) will include consideration of the following, among others: Seismic performance level;
- Design, project management and construction costs;
- Constructability considerations;
- Client requirements;
- Operational requirements;
- Displacement of building occupants;
- Long-term flexibility requirements for the building;
- Architectural aspects of improvements;
- Heritage aspects.

Consideration of Seismic evaluation options will be documented in part by ensuring:

Renovation plans contain the seismic assessment report name, author and date.

Where seismic upgrade work is not required, the existing level of seismic resistance expressed as a percentage of the current NBCC requirements is to be described on the renovation plans.

Where seismic upgrading work is included, details of the seismic improvements including the level of seismic upgrade in relation to the current NBCC requirements, seismic design loads and design philosophy are to be described on the renovation plans.

RS 5.2.3.14 Overview of Environmental Issues

Provide an overview of the status of environmental issues, including:

-
- Preamble for environmental issues – provided.
 - Identification of any previously completed environmental assessment.
 - Identification of any suspect materials/equipment visually identified on-site.
 - Recommendations for action if necessary.

RS 5.2.3.15 Overview of Project Grouping

This will be defined in detail in each individual call-up TOR as generated for the Asset to be evaluated.

RS 5.2.3.16 Code Compliance Summary

Include the following information:

- Code compliance preamble – provided:
- Applicable code version in force at the time of: original construction, any subsequent addition(s)/alteration(s), and any major renovations.
- Applicable code version currently in force and the relevant building code data matrix information, including: building area, building height, storeys below grade, sprinklered, major occupancy(ies), subsidiary occupancy(ies), number of streets, construction type, required fire-resistance ratings, and fire alarm.
- Occupant loads, including: maximum potential occupant load based on occupancy type(s), and current occupant load.
- Adequacy of existing washroom fixtures to serve maximum potential occupant load.
- A listing of all identified code issues, including:
 - Code issues covered under individual Systems.
 - General (multi-system) code design issues not already covered under individual Systems.
 - Code issues identified in the code compliance paragraph of the latest version of the BPR (see RS 5.2.3.17).

Identify for each code issue the applicable reference (i.e. name of code, standard, policy, etc. and its clause, rule, etc.) – e.g. (NBC 2010/2015, Article 3.3.1.17).

Include for each infraction a recommended corrective action in the form of a Requirement entered into the VFA Survey and indicate if addressing the infraction could be delayed due to the age of the building.

RS 5.2.3.17 Building Performance Review

When completed, the latest BPR will have been entered under this heading in the VFA Survey and each system will have a “Satisfactory” or “Unsatisfactory” rating. The assessor will review the section on tenant satisfaction and discuss any unsatisfactory ratings with the Property Manager. Systems that have ongoing operational issues are to be assessed and recommendations in the form of requirements made to address these issues shall be added to the BCR Survey.

A summary of the issues and recommendations shall be written in narrative field “Design Parameters & Deficiencies – current & future” (see RS 5.2.3.4).

RS 5.2.3.18 Overview of Thermography Assessment Issues

Provide an overview of the status related to building enclosure, mechanical and electrical issues, including:

- Preamble for building system issues.
- Identification of any previously completed assessment(s).
- Identification of any suspect materials/equipment visually identified on-site.
- Recommendations for action if necessary.

The Thermography Service is to be conducted in parallel with the Building Condition Report Services.

RS 6.0 Survey Inspection Process**RS 6.1 VFA Survey Reports**

The VFA suite can generate various types of reports. Three key report types that will be useful to the BCR team are:

- System/Requirement listing – a list of the asset's Systems and associated Requirement information.
- Condition - a condition report, available with or without pictures, giving a complete record of all data and deficiencies entered into the VFA Survey, including all of the asset narratives (printed off at the beginning of the inspection process, this report can also be used by the BCR inspection team to collect the building condition information).
- Technical Listing - a technical component list giving an overview of System condition and the total of all requirements scheduled in any given year for each system.

RS 6.2 VFA Surveys

When an assessor uses a single person to enter all the data into the BCR Survey, it includes all disciplines. If each discipline lead is required to enter data, separate discipline specific VFA Surveys can be provided. The assessor can specify which approach they wish to use when requesting a Survey for a building.

RS 6.3 Interview with the Asset Management Team

It is the responsibility of the assessor to schedule an interview with the asset management team at the beginning of every building inspection. This meeting will give the assessor an opportunity to validate the asset's system list, confirm the existence of operational problems, collect information about projects that have been completed since the last BCR and schedule escorted access to the building for the BCR team. During the winter months, systems located outside the asset may not be accessible or visible due to a layer of snow. In these circumstances the assessor may use the condition assessment provided by the property management team to prepare a preliminary schedule of proposed requirements. As part of each call-up, the assessor will return to the asset when weather permits, and confirm the condition of all those systems whose condition could not be assessed during the original visit. The assessor will update the BCR with any changes required to reflect actual system condition. This process shall not delay the delivery of the first version of the BCR.

RS 6.4 Capital versus Repair

The Definitions of Capital versus Repair used for Requirement classification in AVS.

Before identifying an event as CAPITAL, the cost must be greater than \$25k, and one or more of the following rules must apply. Otherwise the event should be classified as a REPAIR:

Does the Requirement...

- Provide an increase in quality over original? The work is being done solely for the purpose of improving the functioning of the asset. If however the work is being done due to the poor condition of the system and the replacement is inherently more functional or of higher quality due to being newer, then the event is a Repair Requirement.
- Improve operating efficiency? The work is being done solely for the purpose of improving the operating efficiency of the asset. If, however, the work is being done due to the poor condition of the system and the replacement is inherently more operationally efficient, then the event is a Repair Requirement.
- Add a new item, system or function to the asset? Adding accessibility capability such as door openers to an asset that does not have them would be considered a Capital Requirement, but replacing existing door openers that are in poor condition would be a Repair Requirement.
- Increase the area of the building? Adding a new wing or floor to the asset.

Modifications, Upgrades, Refits, Optimize, Refurbish, Aesthetics etc. These words do not automatically denote a Capital project, but here are some rules to guide you:

- If the optimizations, upgrade etc. are being performed on a technology-related system (Certain electrical systems, DDC Controls, Elevator controls etc) the replacement event is probably an improvement in quality over the original as opposed to a replacement due to physical condition and should therefore be classed as Capital. If an element is being replaced for any reason other than poor condition or obsolescence, its associated event should be classified as Capital.
- Most Lobby refurbishments/refits are for aesthetic purposes. These requirements normally occur before the end of the typical service life of most lobbies finishes, as there is a need to keep the 'street-appeal' of the asset fresh and new. These requirements should be classed as Capital.

RS 6.5 Requirement Classification**Requirement Structure**

The VFA Requirement subclasses are the same for both Capital and Repair. The Requirement classification chosen shall reflect its primary justification. (E.g. if the purpose of requirement is to remove asbestos, then the Regulatory Hazmat classification would be used, if the purpose of the requirement is to repair a system, then the Integrity-Reliability classification would be used). Examples to aid in classification are provided below within the structure:

The requirement structure is;

- **Integrity**

- o Lifecycle

Components or Systems that are approaching or have exceeded their useful life. (Examples: a 25-year old chiller that is approaching the end of its useful life and is recommended to be replaced within the next 5 years; a 15 year old membrane roof that is prematurely aged and showing signs of wear and leaking)

- o Reliability

Components or Systems that are not working as designed and/or cannot be depended upon, but have not yet exceeded their useful life. (Examples: a recently installed mechanical control that is not operating properly or functioning in an unpredictable manner. Breaches in the roof membrane or deteriorated window sealants).

- **Optimization**

- o Abandoned

Equipment or Facility Systems that have been abandoned in place. (Examples: old cooling tower abandoned on the roof; old oil storage tank abandoned in the basement)

- o Capacity

Problems with a System's ability to meet current demand. (Examples: heating equipment that cannot adequately cover its intended area)

- o Energy

Conditions that adversely affect energy use (Examples: single-pane windows, lack of pipe insulation).

- o Maintenance

Components or Systems that require routine maintenance (Examples: recalibration of thermostats, cleaning of ducts, cyclical painting, other aesthetic considerations)

- o Mission

Components or Systems that do not meet the critical standards of the organization, per the guidelines provided by the client. (Examples: the facility needs to be operational on a 24/7 basis...therefore redundancy/backup components need to be added, e.g. dual-fuel boilers; plant adaptation, e.g. required additions/alterations associated with the conversion of a classroom facility into a dormitory; client driven security vulnerabilities)

- o Sustainability

Improvements where components and/or Systems potentially have a sustainable opportunity (other than Energy based). (Examples: water conservation)

measures, use of building materials and resources based on sustainable procurement and with recycled/bio-based content, improvement of indoor environmental quality and considerations that reduce the impact of the building and its operations on the surrounding site.)

- o Technological Improvements

Conditions that need to be made modern to meet current tech standards. (Examples: pneumatic to DDC; non-energy based upgrades).

- **Regulatory**

- o Accessibility

Conditions that violate accessibility guidelines, such as the Americans with Disabilities Act or Barrier-Free Design Standards. (Examples: non-accessible building entrances, plumbing fixtures, or door hardware)

- o Building Code

Conditions that violate the client specified local and/or national Building codes (Examples: lack of backflow protection, insufficient ventilation, OSHA violations).

- o HazMat

Regulatory issues associated with Asbestos, Lead, PCB, and other situations in which hazardous materials are known or suspected to be present in the Asset. (Examples: suspected asbestos pipe insulation or floor tiles)

- o Life Safety

Conditions that pose an immediate danger to human life or safety. (Examples: blocked emergency egress, dead-end corridors, damaged and/or non-functional fire protection or emergency Systems).

RS 7.0 Specialty Expertise

A Specialist is to be classified to have expertise in exclusively the following two areas (listed directly below) which will feed the RS categories as they relate to:

1. Expertise in assessing Plants and Industrial buildings that have steam boilers, chilled water production equipment, ancillary equipment and systems including the boiler feed water systems, steam distribution equipment within the plant, the chiller, the condenser cooling water systems and the distribution pumps plus associated electrical power, control, and other specialty systems as found.
2. Expertise in assessing Assets for the purpose of creating an Asset Management Plan (AMP). The AMP is a detailed business and economic plan that generally outlines and recommends a management strategy for the Asset. This comprehensive business plan is completed on all crown owned assets and is usually updated for the asset on the same five year cycle as the BCR. The AMP provides the Owner with the building data and intelligence to properly direct the asset to meet its investment objectives.

The AMP consultant to demonstrate the following qualifications.

- Business Degree from a recognized Canadian academic institution;
- Five or more years experience in performing investment analysis for commercial office space
- Two or more years experience in completing AMPs for PWGSC's NCA assets;
- A broad knowledge base and understanding of PWGSC's NCA Real Estate Portfolio
- Experience in using PWGSC's REFIT (Real Estate Financial Investment Toolkit) investment analysis or other similar software programs;
- Full understanding of the PWGSC's Building Condition Report and its key function in the AMP process and a full understanding of the real estate market valuation process;
- Experience in completing business case studies on complex real property projects.

RS 7.1 Stand Alone Task 1 – Functionality and Serviceability Assessment

This section describes the work that the consultant/assessor will perform as a specific Stand Alone document.

Functionality and Serviceability Assessment:

PSPC has a requirement for the implementation of Functionality and Serviceability Assessments (FSA) for (the designated building). Functionality and Serviceability Assessments are evaluation tools used to assess a facility against performance requirements for a typical BOMA B Class Building. The tools are designed to measure how well the building performs in both operational and maintenance requirements (Functionality) and the buildings accommodation requirements (Serviceability). Upon contract award, the consultant shall develop a complete and comprehensive Functionality and Serviceability Assessment.

FSA's in PSPC are based on ASTM (American Society for Testing and Materials) Standards. In order to solve the challenge of having buildings perform at acceptable levels, PSPC elected to omit some of the ASTM Serviceability aspects, and add one for "Thermal Environment and Indoor Air".

In addition to the functional and serviceability requirements set by the ASTM standards, PSPC has reconfigured FSA's to include "Space Suitability" requirements, based on PSPC Fit-Up Standards – Office and Support Space Allocations. Real Property has elected to measure six of these "space suitability" requirements to serve as a snap shot for Fit-Up compliance.

The work shall be carried out based on the terms, conditions and requirements stipulated within the BCR Standing Offer, as adjusted by this Call-up Terms of Reference.

The objective of this assessment is to gauge the extent in which a building performs in both operational and maintenance requirements (Functionality) and the buildings accommodation requirements (Serviceability). FSA's are designed to capture information relating to how a facility is meeting the requirements of its building occupants. The preparation and completion of an FSA will raise the following types of questions:

- Are there amenities that would help attract and retain staff?
- Is the building serviced by public transit and adequate parking facilities for staff and visitors?
- How well can the building support its users, whether visitors, occupants or those who manage and maintain the building?
- Are the environmental conditions (heating, cooling, air ventilation, sound and light) adequate so as to not negatively impact occupants?
- Can one work without undue distractions such as glare or intrusive sounds?
- Are the power and communication services adequate and dependable?
- Is the security provided appropriate for a government organization?
- Can the building be easily maintained?
- Can goods required for the operation be easily delivered and stored?
- Can visitors easily locate the building, the main entrance and the government services located within?

When completing the FSA, the objective is to consider and answer these questions, analyze the results, identify and record any variations from the generic PSPC profile of requirements and recommend actions to be taken to resolve inefficiencies.

The Functionality and Serviceability Assessment are to include & not limited to the following sections:

- Asset Data
 - Asset details
 - Asset photographs
 - Functionality and Serviceability Executive Summary
 - Serviceability and Space Suitability Profile
- Facility Serviceability Data
 - Facility Serviceability Ratings (Assessment Criteria)
 - Aspects
 - Topics
 - Features
 - Rating Scales
 - Serviceability Aspects – Functional Assessment Narratives
- Space Suitability Data
 - Fit-Up Space Allocation (Assessment Criteria)
 - Space Description Narrative.

RS 7.2 Stand Alone Task 2 – Seismic Analysis

This section describes the work that the consultant/assessor will perform as a specific Stand Alone document.

Purpose & Objective of Seismic Analysis:

- To determine the seismic resistance of the building structure in accordance with the requirements of the 2015 National Building Code of Canada and the PSPC Seismic Policy.
- To determine the seismic upgrade requirements for the Operational and Functional Components (OFCs) of the building as it relates to a Life Safety Performance Objective. Particular attention and priority shall be given to the requirements for unreinforced masonry (terracotta, block, brick) and OFCs located along main egress routes.

Required Work:

The consultant is to perform the following tasks to determine the seismic resistance of the structural system:

- Collect and review existing documentation on the building's main structural resistance system and elements, the geology and the seismic hazard of the site.
- Perform on-site investigations and a condition survey of existing elements to confirm existing member sizes, connections and conditions;
- Review the proposed geotechnical services with PSPC and carry out geotechnical investigations and analyses required to support the assessment;
- As part of the geotechnical investigation determine the average shear wave velocity (V_{s30}) in the 30metres of soil / bedrock underlying the building including soil / rock descriptions;
- Address all site, ground, and foundation requirements of NBC 2015;
- Address all requirements defined in Chapter 6 of the latest edition of the Canadian Foundation Engineering Manual;
- Calculate the seismic load requirement for both 60% and 100% force levels for new building construction in accordance with NBCC 2015. Ensure to take into account all current conditions, historical alterations and any modifications that are under way or for which plans are already finalized. Prior to initiating the 3-D Dynamic seismic analysis, the Consultant shall submit and present a Seismic Analysis Brief indicating their proposed assumptions/methodology to be used in the building model; these are to be supported from their review of the existing documents, best practice and professional experience.;
- Evaluate and review the Operational and Functional components (OFCs) (i.e. non-structural elements) as related to a Life Safety Performance Objective. These include, but are not limited, to building components such as canopies over exit ways, partitions in corridors and stairwells, roof parapets, mechanical and electrical systems, ceilings, and cladding at access/egress locations. Particular attention and priority shall be given to the requirements for unreinforced masonry (terracotta, block, brick) and OFCs located along main egress routes.

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- Present the design base shear and overturning moment for both 60% and 100% force levels for new building construction in accordance with Clause 4.1.8 of the 2015 NBCC. Please provide these detailed calculation including parameters in the report and provide the computer model summary;
 - Submit a seismic assessment report including an evaluation of the sufficiency of the main building structure expressed as a percentage of the current NBCC value. The report is also to include an assessment of the OFCs identified above;
 - The seismic assessment shall be carried out by a professional engineer licensed in Ontario with demonstrated experience in seismic evaluation of buildings, and engaging other disciplines (e.g. geotechnical/electrical/mechanical/elevator/architecture) as required to complete this assignment;
 - Documents such as NRC's "Guidelines for the Seismic Evaluation of Existing Buildings", NRC'S "Guidelines for seismic upgrading Techniques of building structures", CSA S832.2014 " Seismic risk reduction of operational and Functional components (OFCs) of buildings", PSPCC's "Guideline on Seismic Evaluation and Upgrading of Non-Structural Building Components" and RPS policy on Seismic Resistance of PSPCC buildings shall be considered as reference documents;
 - New and emerging technologies are also to be carefully considered;
 - Identify a **minimum** of three options for upgrading the seismic resistance of the building in order to meet the requirements of the 2015 NBCC and of the RPS Policy on Seismic Resistance of PSPC Buildings, **for each of** 60% and 100% seismic force levels. Upgrade options for OFCs are also to be provided.
 - Describe the pros and cons of each option, and identify a preferred option with rationale. Provide order of magnitude estimates (Class D) of engineering and construction costs associated with each option, considering all major disciplines including structural, architectural, mechanical and electrical.
 - The following factors are to be considered in the evaluation of upgrade options:
 - Seismic performance level
 - Design, project management and construction costs
 - Constructability considerations
 - Client requirements
 - Operational requirements
 - Long-term flexibility requirements for the building
 - Architectural Impact
 - Heritage Impact
 - Alignment with the overall project implementation strategy
 - Provide a high-level implementation strategy for the recommended upgrade option including phasing of work, and design and construction milestones.

Submit a seismic assessment report for review and comments at the following progress stages: 66%, 99% and Final. The Final Report shall be stamped by the lead Professional Engineer responsible for the seismic assessment. The final 3-D computer model of the structure shall be submitted to PSPC. A formal presentation of the final report shall be made to PSPC.

RS 7.3 Stand Alone Task 3 – Criticality Assessment

This section describes the work that the consultant/assessor will perform as a specific Stand Alone document.

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Specifically evaluating assessed components of the building for Operational Criticality :

Take the completed BCR Asset Tracker & reports of the building to create as follows:

- Focus on the Uniformat level 4 list of components for this exercise and review all the narratives and component/system conditions on the Asset Tracker spreadsheets.
 1. Assess the condition of the building component/systems as determined under the category of "Event / Requirement Listings", then indicate the component's/system's remaining life. There are hundreds of sub-components that affect the Criticality status of the building so ensure to group the categories to suit the "ASTM Uniformat II classification for Building Elements". Establish the sub-elements as per the ASTM Standard and NISD standard structures.
 2. Review the "Priorities", and "action required" timelines in the Narratives as well as all the available supporting studies provided by the Asset in the format of a Criticality assessment as described below.
 3. Provide each line to represent each of the required components to be assessed. Additional sub-categories may be deemed necessary as the process begins.

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
Uniformat Level 4 – Required Component review headings.															
Uniformat identification number															

Create the summary chart for inclusion in the final criticality assessment report.

1. Provide from left to right 15 columns each representing 1 year of the 15 year life cycle span.
2. Where each row (system component) intersects a year we will insert a value which represents the systems/ component condition. (The condition value will comprise two factors)
3. These factors applied together consider health and safety/continuity of operation/ asset threat and regulatory compliance.
4. Good condition (score 5)
5. Low risk of failure (score 4)
6. Medium risk – but near end of life – less than 5 years remaining (score 3)
7. Critical condition – high risk of failure (score 2)
8. System failed (score 1)
9. Produce a heat map broken down into three distinct horizons (i.e. **1-5 years, 6-10 years, 11-15 years**) per high level system where each distinct horizon will be colour coded to reflect the following as applicable:
 - .1 **Black** = Already failed and needs immediate action
 - .2 **Red** = Imminent Timeline Failure
 - .3 **Yellow** = Deferred Intermediate Timeline Failure
 - .4 **Green** = Deferred Long-Term Timeline Failure
10. Once this chart is generated, the conditions as colour coded need to be rated in terms of criticality within the component category. This determines the true criticality relative to the overall Asset condition. Multiply the rating factor on the chart by the specific condition rating described below to get a new criticality value.

11. The final criticality assessment value provides for the highest criticality of renewals and condition of the building elements. The heat map will now have a change in colour coding for the building systems on the 15 year planning horizon where **0 to 30 points are in red** for the highest criticality of renewal, **31 to 70 points in yellow** for medium, and **71 to 100 points in green** for low.

12. The scoring of the major component categories will comprise of 4 scoring categories at a maximum of 25 points each under the four factors listed above. **Health and safety, Continuity of operation, Asset threat and Regulatory compliance.**

The building assessment breakdown points of review as described above are given a colour coding from green to yellow to **red** as follows:

1. The lower the component/condition rating coupled with a **RED** of the Criticality Assessment document; the worse the impact to Health and Safety.
2. **RED** with the scores in the 0 – 30 range are in the highest critical need of renewal.

Heat Map Colour Coding			
Description	Total Weighted Points	Colour	
Highest criticality of renewal	0-30	Red	
Median criticality of renewal	31-70	Yellow	
Low criticality of renewal	71-100	Green	

Application of Condition Ratings:

Each system/component subject to a requirement/event in the BCR is to be put through an additional set of condition ratings under the same four (4) scoring categories illustrating the impact to each category by virtue of pursuing the event. The four (4) scoring categories have a maximum of 25 points each under the headings; Health and safety, Continuity of operation, Asset threat and Regulatory compliance. **(4 x 25points = 100 points maximum).**

Health and Safety	
Description	Condition Rating
No exposure to hazards or injuries.	5
No exposure to hazards under normal operation.	4
Minor exposure to hazards and/or non-disabling injury.	3
Significant exposure to hazards and/or non-disabling injury.	2
Definite exposure to hazards capable of causing disabling injury or death. Immediate action required.	1

Continuity of Operations

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Description	Condition Rating
Failure of component/system can be corrected with minimal effect upon the users of the asset. Repairs can be undertaken without significant disruption to workspace during normal working hours.	5
Failure of the component/system can be corrected with minimal effect upon the users of the asset during normal working hours, however users may experience disruptive noise and activity in their general vicinity for an extended period.	4
Failure of the component/system cannot be corrected without evacuating a portion of the building for a brief period.	3
Failure of the component/system cannot be corrected without evacuating a portion of the building for an extended period.	2
Failure of the component/system cannot be corrected without evacuating the entire asset for an extended period.	1

Threat to Asset	
Description	Condition Rating
No exposure to hazards. Condition of the component/system has no relationship to the physical integrity of the asset.	5
Minor exposure to hazards under normal operations.	4
Some exposure to hazards. Failure of the component/system may have deleterious, localized effect on the physical integrity of the asset.	3
Major exposure to hazards.	2
Extreme exposure to hazards. Failure of the component/system has immediate and profound effect on the overall physical integrity of the asset.	1

Regulatory Compliance	
Description	Condition Rating
Component/system is fully compliant with current/fire codes and standards.	5
Component/system is partially compliant with applicable codes and standards.	4
Component/system has been identified as not compliant with applicable codes and standards.	3
Component/system is not compliant with applicable codes and standards, and has been identified as a life safety concern by authorities having jurisdiction.	2
Component/system is not compliant with applicable codes and standards, and authorities having jurisdiction have identified it as a major life safety threat. Immediate action is required.	1

Application of Criticality Rating:

Each system/component subject to a requirement/event in the BCR is to be put through a set of criticality ratings. The overall Criticality rating for each component is calculated in three (3) stages based on six (6) factors.

The points and colour codes are established using a 6-point weighted ranking system which includes the following factors comprehensively:

Item #	Criticality Rating Factor	Weightage
1	Average Remaining Life	25%
2	Annual System Condition Index (SCI) considering no funding scenario	20%
3	Relative Importance of the Component	20%
4	Event Deferral Risk	15%
5	Failure Consequential Damage Risk	20%
6	Code Compliance Status	Override items 1, 3, 4 & 5. Please see * below.

The Criticality rating for each component is calculated in three (3) Stages:

Stage 1 - Assigning points for each component/event as shown in tables 1-5 below.

Stage 2 - Assigning weightages to the points which were assigned in Stage 1.

***Code Compliance Status:**

In case the component is non-compliant with the applicable code and/or Authority Having Jurisdiction (AHJ) have provided a non-compliance notice or the component condition amount to an unsafe condition with risk to the safety, then the weighted points for all criticality rating factors except the SCI are reduced to 0 which flags the component in the "Alert" zone.

Stage 3 - Adding the weighted points for each component to obtain total points as shown in tables 1-5 below and heat map colour as shown in table 6 below.

Criticality Rating Factor For Average Remaining Life, Stages 1 & 2 (Table 1):

Table 1 - Average remaining life (Weight 25%)

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Average remaining life	Points contribution, Stage 1	Weighted Points, Stage 2
1	0	0
2	8	2
3	15	4
4	23	6
5	30	8
6	38	10
7	45	11
8	53	13
9	60	15
10	68	17
11	75	19
12	83	21
13	90	23
14	95	24
15	100	25

Criticality Rating Factor for System Condition Index (SCI), Stages 1 & 2 (Table 2):

Table 2 – System condition index with no funding scenario (Weight 20%)		
Description	Points contribution, Stage 1	Weighted Points, Stage 2
Component SCI > 30% (Critical)	0	0
Component SCI 10-30% (Poor)	25	5
Component SCI 5-10% (Fair)	50	10
Component SCI < 5% (Good)	100	20

Criticality Rating Factor for Relative Importance of The Component, Stages 1 & 2 (Table 3):

Table 3 - Relative importance of the component (Weight 20%)		
Description	Points contribution Stage 1	Weighted Points Stage 2
A10 FOUNDATIONS – High	0	0
A20 BASEMENT CONSTRUCTION - High	0	0
B10 SUPERSTRUCTURE - High	0	0
B20 EXTERIOR CLOSURE - Medium	50	10
B30 ROOFING – Medium	50	10
C10 INTERIOR CONSTRUCTION - Low	100	20
C20 STAIRS – Low	100	20
C30 INTERIOR FINISHES - Low	100	20
D10 CONVEYING – Medium	50	10
D20 PLUMBING – Medium	50	10
D30 HVAC – Medium	50	10
D40 FIRE PROTECTION - High	0	0
D50 ELECTRICAL – Medium	50	10

Criticality Rating Factor for Event Deferral Risk, Stages 1 & 2 (Table 4):

Table 4 - Event Deferral Risk (Weight 15%)

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Description	Points contribution Stage 1	Weighted Points Stage 2
Code compliance required due to alteration or change of use. Failure to correct an unsafe condition can cause accelerated deterioration, structural damage or integrity of the building.	0	0
Code compliance required due to alteration or change of use. Failure to correct an unsafe condition, can cause notable impact on the structural elements and integrity of the building.	50	8
Code compliance required due to alteration or change of use. Failure to correct an unsafe condition can cause minor impact on the structural elements and integrity of the building.	100	15

Criticality Rating Factor for Consequential Damage Rating, Stages 1 & 2 (Table 5):

Table 5 - Failure Consequential Damage Rating (Weight 20%)		
Description	Points contribution Stage 1	Weighted Points Stage 2
Failure: Will result in high damage and remediation cost of the building (ex: leaks in foundations will damage interiors).	0	0
Failure: Will result in medium damage and remediation cost of the building (ex: Exterior doors deterioration will result in notable damage on the interior finishes).	50	10
Failure: Will result in low damage of the building (ex: deterioration of the ceiling finishes will result in minor damage on the interior finishes).	100	20

Finally the weighted points gathered under the criticality rating are applied to each component score as a factor which are translated to the original heat map categories as follows:

Table 6 – Heat Map Colour Coding			
Description	Total Weighted Points Stage 3	Colour	
Highest criticality of renewal	0-30	Red	
Median criticality of renewal	31-70	Yellow	
Low criticality of renewal	71-100	Green	

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Final Sample Criticality Assessment Summary Heat Map Based on Uniformat Level 4:

Criticality Assessment - Summary Recommendation Heat Map																
Level 4 Group Elements	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	
B101000-0-01-01-Floor Construction - General	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
B101000-0-01-02-Floor Construction - General	55	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
B101000-0-01-03-Floor Construction - General	55	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
B101500-0-01-01-Exterior Fire Escapes	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
B102000-0-01-01-Roof Construction - General	55	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
B201000-0-01-01-Exterior Walls - General	69	67	65	10	10	10	10	10	10	10	10	10	10	10	10	
B202000-0-01-01-Windows - Aluminum	20	20	20	20	20	20	20	20	20	20	20	20	20	20	20	
B202000-0-01-02-Windows - Aluminum	82	80	78	76	75	73	71	69	67	65	10	10	10	10	10	
B302500-0-01-01-Roof Safety Anchors	82	80	78	76	75	73	71	69	67	65	10	10	10	10	10	
C100000-0-02-01-Interiors - General	83	81	79	77	75	73	71	69	67	65	38	38	38	38	38	
C201000-0-01-01-Stair Construction - General	20	20	20	20	20	20	20	20	20	20	20	20	20	20	20	
D020000-0-01-01-Domestic Water Distribution - General	82	80	78	76	75	73	71	69	67	65	28	28	28	28	28	
D020000-0-01-02-Domestic Water Distribution - General	80	78	76	75	73	71	69	67	65	38	38	38	38	38	38	
D024000-0-01-01-Domestic Hot Water Boilers	78	76	75	73	71	69	67	65	28	28	28	28	28	28	28	
D030000-0-01-01-Sanitary Waste - General	82	80	78	76	75	73	71	69	67	65	28	28	28	28	28	
D030000-0-01-02-Sanitary Waste - General	45	45	45	45	45	45	45	45	45	45	45	45	45	45	45	
D032000-0-01-01-Hot Water Boilers - General	28	28	28	28	28	28	28	28	28	28	28	28	28	28	28	
D032500-0-01-01-Heating and Cooling Circulation Pumps	28	28	28	28	28	28	28	28	28	28	28	28	28	28	28	
D034000-0-01-01-Package d Air Conditioning (PAC) Units - General	67	65	28	28	28	28	28	28	28	28	28	28	28	28	28	
D034000-0-02-01-Package d Air Conditioning (PAC) Units - General	67	65	28	28	28	28	28	28	28	28	28	28	28	28	28	
D034000-0-01-01-PAC - Rooftop	80	78	76	75	73	71	69	67	65	28	28	28	28	28	28	
D034000-0-01-02-Make-Up Air Units	67	65	28	28	28	28	28	28	28	28	28	28	28	28	28	
D034500-0-01-01-Exhaust Ventilation Distribution Systems - General	82	80	78	76	75	73	71	69	67	65	28	28	28	28	28	
D034500-0-01-01-Exhaust Fans	75	73	71	69	67	65	28	28	28	28	28	28	28	28	28	
D401000-0-01-01-Sprinklers - General	70	68	66	65	63	61	59	57	55	18	18	18	18	18	18	
D401000-0-01-02-Sprinklers - General	72	70	68	66	65	63	61	59	57	55	18	18	18	18	18	
D403000-0-01-01-Fire Protection Specialties - General	55	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
D403000-0-01-02-Fire Protection Specialties - General	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
D405000-0-01-01-Exhaust Hood & Duct Fire Protection	63	61	59	57	55	18	18	18	18	18	18	18	18	18	18	
D501000-0-01-01-Electrical Service & Distribution - General	65	65	65	65	65	65	65	65	65	65	65	65	65	65	65	
D501000-0-01-02-Electrical Service & Distribution - General	28	28	28	28	28	28	28	28	28	28	28	28	28	28	28	
D501200-0-01-01-Distribution Panels and Breakers	73	71	69	67	65	28	28	28	28	28	28	28	28	28	28	
D501200-0-01-02-Distribution Panels and Breakers	28	28	28	28	28	28	28	28	28	28	28	28	28	28	28	
D502000-0-01-01-Lighting And Branch Wiring - General	65	28	28	28	28	28	28	28	28	28	28	28	28	28	28	
D503000-0-01-01-Fire Detection & Alarm Systems - General	73	71	69	67	65	10	10	10	10	10	10	10	10	10	10	
D503000-0-01-02-Fire Detection & Alarm Systems - General	71	69	67	65	28	28	28	28	28	28	28	28	28	28	28	

RS 7.4 Stand Alone Task 4 – Gap Analysis

- This section describes the work that the consultant/assessor will perform as a specific Stand Alone document.
- In general, a BCR is an assessment of the condition of the components and recommended actions required to maintain the asset in operating condition during a projected 30 years.
- The BCR covers all components on the site and in the asset organized as follows:**
 - Site related components such as infrastructure and landscaping.
 - Architectural components such as the building envelope and the interior fit-up.
 - Structural components such as the foundations and the superstructure.

4. Mechanical & Electrical components such as the HVAC and Power.
5. Horizontal & Vertical Transportation components such as elevators, lifts and conveyors.

- ***Focus on the major components for this exercise and review the components conditions.***
- ***Assess the condition of the building component and decide on the component's remaining life. There are hundreds of sub-components within the 5 major categories above but focus on the Architectural, Mechanical& Electrical and the Structural disciplines with the Overall related summary recommendations.***
- The remaining life shall be determined by considering the following factors:
 1. Age of the component.
 2. Component expected life.
 3. Identified deficiencies.
 4. The component service conditions including duty cycles, weather conditions, hours of operation.
 5. Maintenance practices.
 6. Obsolescence.
 7. Operational or functional performance problems.

Review the Event Narratives in the BCR and the supporting studies and provide a summary recommendation of the findings.

RS 7.5 Stand Alone Task 5 – FCI Scenario Analysis / BMP Projections

This section describes the work that the consultant/assessor will perform as a specific Stand Alone document.

Building Management Plan Projection Listings (5-year, 10-year):

1. Develop priority rankings with respect to all events/requirements stemming from the BCR:

P1 = all events/requirements occurring within the same year during BCR production

P2 = all events/requirements occurring in the first year following BCR production

P3 = all events/requirements occurring in the second-fifth years following BCR production

P4 = all events/requirements occurring in the sixth-tenth years following BCR production

P5 = all events/requirements occurring from the eleventh year and on following BCR production

2. The below table summarizes the considerations around the priority rankings associated with each event:

Priority 1 – Currently Critical (Immediate)
Projects in this category require immediate action to:

1. Return a facility to normal operation
2. Stop accelerated deterioration
3. Correct a cited safety hazard
Priority 2 – Potentially Critical (Year One)
Projects in this category, if not corrected expeditiously, will become critical within a year.
Situations in this category include:
1. Intermittent interruptions
2. Rapid deterioration
3. Potential safety hazards
Priority 3 – Necessary – Not Yet Critical (Year Two-Five)
Projects in this category include conditions requiring appropriate attention to preclude predictable deterioration or the potential downtime and the associated damage or higher costs if deferred further.
Priority 4 – Recommended (Year Six-Ten)
Projects in this category include items that represent a sensible improvement to existing conditions. These items are not required for the most basic function of a facility; however, Priority 4 projects will either improve overall usability and/or reduce long term
Priority 5 – Recommended (After Ten Years).

Facility Condition Index (FCI) Scenarios:

1. Compute the current replacement value of the facility. The Current Replacement Value (CRV) is defined as the total amount of expenditure in current dollars required to replace the asset and meet the current acceptable standards of construction and comply with regulatory requirements. CRV is not the Insurance Replacement Value, Book Value, or the Market Value.
2. Compute the Facility Condition Index for the entire building. The Facility Condition Index (FCI) is a comparative indicator of the relative condition of facilities. The FCI is expressed as a ratio of the cost of remedying maintenance deficiencies to the current replacement value. The FCI provides to the facility's owners/management a method of measurement to determine the relative condition index of a single building, group of buildings, or the total facility.

The FCI is the amount of deferred maintenance divided by the Current Replacement Value (CRV).

The results range from 0 to 1, or can be expressed as a percentage. The generally accepted range of FCI's for establishing a building's condition is shown below. This value has been adopted by American Associations, and a number of other national facilities groups. Accepted values are as per the following guidelines:

The lower the value of FCI, the better condition that a building is in. Current industry benchmarks indicate the following subjective condition ratings for facilities with various ranges of FCI:

0 - 5% FCI Asset is in good Condition

5 - 10% FCI Asset is in fair condition

10 – 30% FCI Asset is in poor Condition
30 – 50% FCI Asset is in critical Condition

FCI values and some examples of possible component issues

Critical (Over 30%)

- Facilities will look worn with obvious deterioration.
- Equipment failure occurring frequently. Occasional building shut down will likely occur. Management risk is high.
- Health and safety issue figure prominently
- Replacement of multiple systems required (i.e. Mechanical, Electrical, Architectural and Structural
- Building heating system failure.
- Evacuation of select floor areas due to unaddressed roof leakage.
- Structural issues including envelope replacement.
- Operations Staff will not be able to provide regular scheduled maintenance due to high level of "reactive" calls

Poor (11% to 30%)

- Facilities will look worn with apparent and increasing deterioration
- Frequent component and equipment failure may occur. Occasional building shut down will occur
- Replacement of specific major systems required, such as heating and plumbing systems, complete interior renovations, building envelope restoration.
- Shut down may affect some units (i.e. roof or pipe leakage)
- Tenant complaints will be high with increased level of frequency.
- Concern about negative tenant morale will be raised and become evident.
- Facilities staff time will likely be diverted from regular scheduled maintenance and forced to "reactive" mode

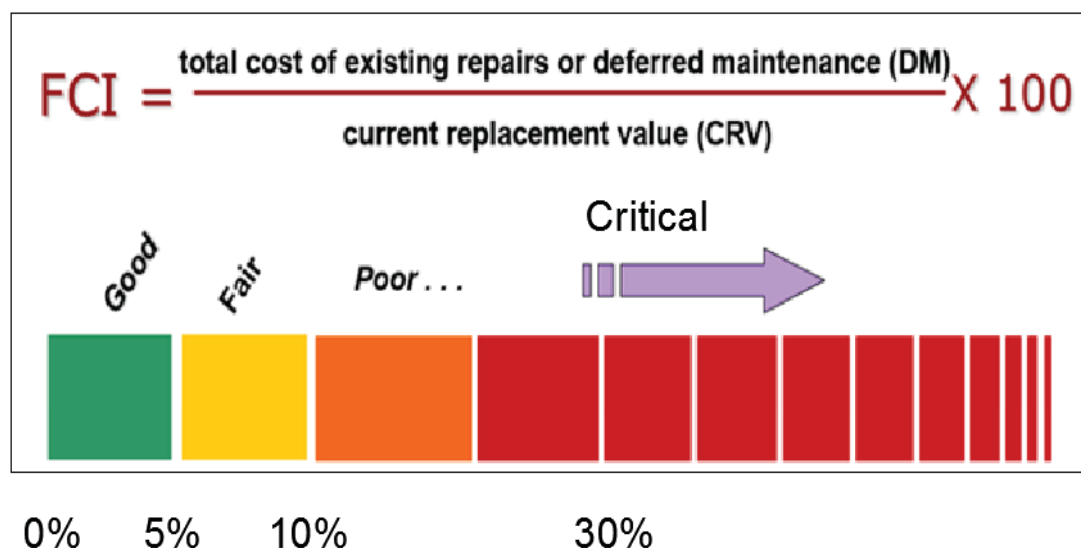
Fair (6% to 10%)

- Facilities are beginning to show signs of wear
- More frequent component and equipment failure will occur
- Repairs and replacement of specific systems, i.e. boiler, window replacements, interior renovations.
- Tenant complaints will occur with higher level of frequency
- Tenant morale may be affected
- Facilities staff time may at times be diverted from regular scheduled maintenance

Good (0% to 5%)

- Facilities will look clean and functional
- Limited and manageable component and equipment failure may occur
- Repairs and replacement of more of an aesthetic or general nature, such as wall painting, carpet replacement, roof repair, window caulking.
- Tenant complaints will be low and manageable
- Tenant morale will be positive and evident
- Facilities staff time will be devoted to regular scheduled maintenance

FCI GRAPH:



3. The FCI Scenario Analysis allows the Asset Management Team to evaluate various funding scenarios to tackle the renewal needs and determine the effect of the funding on the FCI at the same time.

Type 1 also allows the Team to quickly evaluate the two funding scenarios while optimizing the funding allocation across the portfolio and maintain Assets in good shape within acceptable FCI limits.

Short Term Funding strategies shall include:

Scenario	Description
1	All renewals which are identified in the site inspection are completed in the following year from when they are prescribed to occur, and there are no previous backlog repairs for each year otherwise (e.g. if an event/requirement is slated to occur in 2016/2017, it does not get funded that year but gets funded in 2017/2018 and gets completed in this latter year).
2	Eliminate all critical priority 1 problems within 2 years. (Focus to be on operational, life safety and regulatory compliance for the Assets).

Type 2 also allows the Team to take the time to evaluate as many funding scenarios as possible to work with a specific funding allocation across the portfolio and maintain Assets in good shape within acceptable FCI limits.

Long Term Funding strategies may include but not limited to:

Scenario	Description
1	Fixed amount of funding provided each year.
2	Fixed amount of funding plus a fixed percentage increase provided each year
3	Funding to maintain FCI
4	Eliminate backlog in 10 years
5	Funding a percentage of the CRV each year
6	Funding allocated by Asset Manager
7	Eliminate backlog each year.

RS 7.6 Stand Alone Task 6 – AMP Specialty Consultant

This section describes the work that the consultant/assessor will perform as a specific Stand Alone document.

Purpose of the Project:

The target deliverable after an extensive BCR is the creation of an Asset Management Plan (AMP) which will help to develop a direction for the Asset. The plan needs to take into account the condition of the building, how it meets federal government guidelines, as well as the value of the building, its Highest and Best Use, and its investment sustainability over a 25-year investment horizon. A series of options need to be identified for the Asset. These options need to be analysed and compared to a variety of benchmarks and guidelines to best determine the most appropriate strategy for the asset for the Owner Investor's consideration.

Required Work specific to the AMP:

Creation of a full scope AMP set of documents based on BCR component/system review of the Asset.

The following pages detail the information and content requirements for completing the Asset Management Plan (The AMP).

Executive Summary:

The Executive Summary is a key section of the AMP. The intent of the summary is to provide a brief outline of the most significant information that flows from the option analysis, the BCR and the appraisal. Conclusions recommendations and actions should be clearly identified here.

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a. Content Requirements:

The initial part of the executive summary should describe the asset's location, when it was built, floor area and the main use. It should also comment on the main findings and provide a summary from the sections of the AMP.

1. Describe the physical condition of the asset, identifying major issues.
2. Note the operational, functional and financial performance of the facility as well as any Heritage attributes, if any.
3. Identifying key issues pertaining to building performance and complete the following AMP Summary Table **stating** major repair and capital spending required.
4. Identify and recommend the most urgent projects.
5. Summarize the Options Analysis for final recommendation and strategy. Include a Financial Analysis Table.
6. Conclude the Executive Summary with a signature block.

1. Asset Description:

Under this section the consultant is to provide a high level summary in a table format of the prominent facts regarding the asset.

AMP SUMMARY

Building Address:

Building Name:

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<u>Occupancy Information</u>	<u>Building Information</u>
Clients/Tenants (Federal):	Responsibility Centre:
Clients/Tenants (Private):	Type: Crown Owned – PWGSC
Management Responsibility: PWGSC	No. of Buildings:
Land Information	No. of Floors:
Asset Type: Outline whether the asset is used for office or special purpose accommodation.	Building Class:
Zoning:	Heritage / FHBRO Designation: "Classified"
Parking: Type of parking spaces (heated underground and or surface parking). See BCR	Environmental Performance Designations – BOMA Best, LEED, etc.
Legal Description: Provide the legal description for the asset.	FCI
Parking Stalls: Discuss the number of parking stall both underground and surface. See BCR & Appraisal	Construction Date:
Parking Requirements Under Zoning: Market norms compared to actual spaces both underground and surface.- Appraisal	Major Renovation Dates:
Public Utilities and Services: Brief outline of the various municipal services available to the property and if the property is connected to a centre heating and cooling plant utility. See Appraisal & BCR	Purchase Date: N/A – Crown Construct
Site Access: Vehicular access from Wellington Street. The site is also well serviced by public transportation.	Purchase Price: N/A – Crown Construct
Land Area: Appraisal & Win Fin documents	Market Value (Stabilized Occupancy):
	Vacant Building Market Value: See Appraisal
	Vacant Land Value: Amount and Effective Date: See Appraisal
	Payment in Lieu of Taxes: See Appraisal
	Floor Area (m2): See Win Fin Data files
	<ul style="list-style-type: none"> • Useable area • Rentable area • Gross area
	Occupancy:
	<ul style="list-style-type: none"> • Federal/Other: Percent Occupancy

**Maximum Permitted Building Area:
Appraisal**

Square Meters per FTE Population:

Space Optimization:

Legal Land Use: Description of current use
and compliance to legal use. **Appraisal**

2. **Asset Condition:**

In this section, identify key findings concerning the physical condition of the asset (briefly summarized from the Building Condition Report).

3. **Operational Performance:**

Note the facility's level of Code Compliance and Standards in areas such as health and safety, accessibility, environmental standards and energy efficiency. Include in some detail the more important operational performance measures.

4. **Functional Performance:**

This section refers to the ability of a facility to satisfy the program delivery requirements of its clients. Note client satisfaction, accommodation functionally and space utilization.

5. **Market Analysis:**

The Market Valuation (Appraisal) is one of the key financial components in the overall Asset Management Plan development. The appraisal/valuation process is based on a comprehensive analysis of the building's functional and financial performance ranging from its highest and best use to its potential to generate income to its ability to compete in the local market. The appraisal analysis is a major input to the AMP option analysis and is used by PWGSC as one of the leading documents that drive the business decisions for the asset. The appraisal analysis is completed independent of the AMP itself and will be made available upon its completion.

The purpose of the section is to capture the valuation data and market information pertaining to the asset. The following appraisal sections should be briefly summarized and incorporated into the AMP document.

a. **Content:**

1. **Local Market Context:**

- Include the demographic information, economic prospects of relevance to the asset, description of surrounding area.

2. Market Survey:

- Note Market demand in public and private sectors.

3. Asset Valuation:

- Define the Highest and Best Use, the Market value based on current condition.
- The Replacement Cost of the building to determine the Facility Condition Index (FCI).
- A vacant land value estimate.
- The improvement's replacement cost new, effective age, remaining economic life, and the depreciated replacement cost.

6. Financial Performance:

Describe in this section the financial performance of the asset based on its current use functional performance and overall building design. The focus here is on cost performance.

7. Option Analysis:

In this section of the report the consultant is to examine the full range of options available for the asset and to recommend an approach for the building that is realistic, and allows program requirements to be met in an effective and least-cost manner. Appendix "D"

8. Summary and Recommendations:

The consultant is to provide the AMP Summary as a standalone document. This document is to briefly summarize the most important findings and recommendations from the AMP, Appraisal and the BCR exercises.

Appendices:

The AMP report is to provide the detailed information needed to support the analysis and conclusions of the main sections of the AMP. The use of appendices for detailed information allows the main document to be shorter and more user friendly.

Content:

- Site Plan, Floor Plans and/or Picture of Facility
- 25-Year Program of Work
- Financial Analysis

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- Options Analysis- (all spreadsheets outlining the analysis of the options are to be included as part of the AMP Report).
- National Investment Strategy
- Federal Heritage Buildings Designation / Classification

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AMP SUMMARY

Building Name:

Building Address:

<u>Occupancy Information</u>	<u>Building Information</u>
Clients/Tenants (Federal):	Responsibility Centre:
Clients/Tenants (Private):	Type: Crown Owned – PWGSC
Management Responsibility: PWGSC	No. of Buildings:
Land Information	No. of Floors:
Asset Type: Outline whether the asset is used for office or special purpose accommodation.	Building Class:
Zoning:	Heritage / FHBRO Designation: "Classified"
Parking: Type of parking spaces (heated underground and or surface parking). See BCR	Environmental Performance Designations – BOMA Best, LEED, etc.
Legal Description: Provide the legal description for the asset.	FCI
Parking Stalls: Discuss the number of parking stall both underground and surface. See BCR & Appraisal	Construction Date:
Parking Requirements Under Zoning: Market norms compared to actual spaces both underground and surface.- Appraisal	Major Renovation Dates:
Public Utilities and Services: Brief outline of the various municipal services available to the property and if the property is connected to a centre heating and cooling plant utility. See Appraisal & BCR	Purchase Date: N/A – Crown Construct
Site Access: Vehicular access from Wellington Street. The site is also well serviced by public transportation.	Purchase Price: N/A – Crown Construct
Land Area: Appraisal & Win Fin documents	Market Value (Stabilized Occupancy):
Maximum Permitted Building Area: Appraisal	Vacant Building Market Value: See Appraisal
	Vacant Land Value: Amount and Effective Date: See Appraisal
	Payment in Lieu of Taxes: See Appraisal
	Floor Area (m2): See Win Fin Data files
	<ul style="list-style-type: none">• Useable area• Rentable area• Gross area
	Occupancy:
	<ul style="list-style-type: none">• Federal/Other: Percent Occupancy

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Legal Land Use: Description of current use and compliance to legal use. **Appraisal**

Square Meters per FTE Population:

Space Optimization:

RS 7.7 Stand Alone Task 7 – Accessibility Audits

This section describes the work that the consultant/assessor will perform as a specific Stand Alone document.

Accessibility Audit:

PSPC has a requirement for the implementation of accessibility audit for (the designated building). Upon contract award, the consultant shall develop a complete and comprehensive accessibility audit.

The work shall be carried out based on the terms, conditions and requirements stipulated within the BCR Standing Offer, as adjusted by this Call-up Terms of Reference. The final reports for this building shall act to reasonably identify any remaining accessibility improvements required in order to bring the base building elements of the facility in compliance with the Accessibility Requirements of the Treasury Board Accessibility Standard for Real Property and the CAN CSA B651 95 Barrier-Free Design Standard.

As part of the assessment, the Consultant shall obtain relevant asset information by attending the initial meetings planned with the Project Manager, Operational staff, P&TS Centre of Expertise specialists and other PWGSC stakeholders to provide relevant input.

The Accessibility Audit Reports are to include & not limited to the following sections:

- Introduction
- Facility Overview
- Walkways
- Parking
- Building Entrances
- Vertical Movement
- Interior Doors and Corridors (Base Building)
- Washrooms
- Drinking Fountains
- Public Telephones/Tactile Signage
- Public Areas
- Building Exemptions
- Accessibility Compliance Score
- Class C Construction Estimates

The assessment of each building components must address the modifications required to comply with CSA B651 12 Accessible Design for the Built Environment.

RS 7.8 Stand Alone Task 8 – Specialty Consulting Work as per TOR

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Stated Objectives for a Hazard Industrial Building such as a Plant

It is imperative that electrical & mechanical equipment/components situated within a typical central heating and cooling plant (CHCP) building be the highlighted focus of the report, in addition to the base building information. The objective of this BCR process is to develop a condition report that covers the heating & cooling plant as a whole functioning unit/asset and not just the building. This BCR report has an extensive requirement for a comprehensive, clear and detailed review of the plant electrical & mechanical summaries shall be presented as primary importance to the other discipline summaries.

The main building is a vessel/enclosure within which the plant operations and equipment function will have a separate maintenance protocol and Standard Operating Procedure (SOP). The building assessment shall be addressed with the BCR process as described in the BCR-Standing Offer with Asset Tracker data to be able to maintain the Asset in operating condition compliant with all regulatory and policy requirements during the next 30 years. This first portion of the BCR document shall cover all components on the site organized as follows:

- Site related components;
- Architectural related components/systems
- Structural components/systems;

- Horizontal and vertical transportation;

Scope of work and reporting to include:

Validation of the Component List

1. In addition to the components provided in the standard VFA listing and the previous BCR, the consultant is to establish the full component list by extraction from the Standard Operating Procedures (SOPs) for the plant in consultation with the plant operations staff.

BCR Executive Summary

1. With regard to the executive summary, it is imperative that CHCP electrical & mechanical equipment/components situated within the building be included within this section, in addition to the base building information. The objective of this BCR project is to develop a condition report that covers the heating & cooling plant as a whole functioning unit/asset and not just the building. This report has an extensive requirement for a comprehensive, clear and detailed executive summary, thus special attention to this section is a must. It is recommended that it be started by presenting the total estimated repair and capital costs at the beginning. Also it is recommended that the plant electrical & mechanical summaries be presented in advance of other discipline summaries.

Overview of Mechanical Systems Condition

1. With regard to an overview of the condition of the mechanical systems, this shall cover base building, and all of the major plant equipment/components situated within the building. The objective of this project is to develop a condition report that covers the heating & cooling plant as a whole functioning unit/asset. The scope includes, but not limited to, the following; Air Compressors, Main Air Receivers, Control Air Dryers, Compressed Air Distribution, Centrifugal Chillers, Refrigerant Gas Leak Analyzer, Cooling Towers & Piping, Condenser Water Circulating Pumps, Chilled Water Circulating Pumps, Condensate return system and ancillary equipment, Central Heating Plant Boilers (Steam), Boiler Fans (Combustion Air), Breaching & Stacks, Boiler Combustion Gas Analyzer, Boiler Feed Water Make up & Expansion System, Chilled Water Make up & Expansion System, High Pressure Steam Distribution System, Chilled Water Distribution System Fuel Systems & Piping, Fuel Storage Tanks, Fuel Oil Pumps, Diesel Generator Systems, Water Treatment Systems, Automated Control Systems (DCS), Plumbing Systems.
2. Generally piping condition cannot be assessed beyond age based generalities. Possible piping considerations include (steam, condensate, hydroponic drip, chilled water primary, river water):
 - a. Having the consultant map of each piping system showing approximate age, diameter, length, insulation type etc. of each section (based on commentary from the plant superintendent and team, and supporting documentation); and
 - b. Recommended locations for testing (based on age or expected condition from above) and make any ensuing recommendations within the context of a future level III study.

Overview of Electrical Systems Condition

1. With regard to an overview of electrical systems condition, this shall cover all of the major electrical equipment/components situated within the CHCP buildings and out buildings. The scope includes, but not limited to, the following:

Service, Power Vault, Primary Switch Gear, Secondary Switch Gear, Feeders, Metering Systems, Substations, Motor Control Centers, Large Electric Motor Starters, Bus ducts & raceways, Distribution Panels, Diesel Generator System, Normal & Emergency Lighting. In order to better explain the electrical systems with the CHCP. PSC will provide single line electrical drawings.

RS 7.9 Stand Alone Task 9 – Building Capacity Assessment – Long Form

This section describes the work that the consultant/assessor will perform as a specific Stand Alone document.

The Building Capacity Assessment Report is to include the following sections:

- Executive Summary
- Building Overview
- Exit Systems
- Vertical Transportation Systems
- Mechanical Systems
- Electrical Systems
- Sanitary Infrastructure
- Workplace 2.0

Each section within each Building Capacity Assessment Report is to be developed as follows:

- Executive Summary:
 - The building's current and maximum occupancy;
 - A summary table indicating the maximum occupancy supported by each of the major building systems (Exit Systems, Mechanical Systems, Electrical Systems and Sanitary Infrastructure) floor-by-floor in comparison to the building WP2 estimated occupancy as per the average WP2 (14m²); and
 - A conclusion stating whether the building is capable of meeting the occupant density prescribed in the estimated Workplace 2.0 standard and a summary of the limiting factors for increased occupant load floor-by-floor.
- Building Overview:
 - A brief summary of the building's physical infrastructure (e.g., number of floors, usage, etc.);
 - The building classification as per section 3.1.2.1 of the National Building Code (NBC);
 - Whether the high building requirements apply for any portion of the building as per section 3.2.6 of the NBC;
 - The Occupant Load of the building as per section 3.1.17.1 of the NBC; and
 - The Building Code Matrix as per the NBC.

- Exit Systems:

- Provide an Exit Capacity Assessment, included, but not limited to the following:
 - Show on floor plans the exiting layout and the number and location of exits for each floor.
 - Analyze the existing exit system infrastructure in the building and confirm whether the infrastructure – including but not limited to the exit integrity, exit through lobbies, fire exposure protection, exit corridors, etc. – meet the requirements of the 2015 National Building Code of Canada (NBCC). Summarize findings in a table and provide the details of the analysis in an appendix.
 - Confirm that the distance between exits meet the requirements of the 2015 NBCC.
 - Confirm that each identified exit leads from the floor area it serves to an open public thoroughfare, or an exterior open space protected from fire exposure from the building and having access to an open public thoroughfare. Summarize findings in a table and provide the details of the analysis in an appendix.
 - Analyze travel distance from all floor areas to exits on each floor and determine if it meets the limits established in the 2015 NBCC. Summarize findings in a table and provide the details an appendix.
- Calculate and summarize in a table the results of the occupant load of each floor under the scenarios listed below. Provide all calculations for each scenario in the appendix, and ensure to identify, discuss and summarize any limiting factors for increased occupant load for each floor, such as sloped floors, stair rise/run, egress/exit door widths, etc.
 - Current/Existing state. Provide a table listing the current occupancy loads for each floor.
 - If floors are fitted up to the Workplace (WP) 2.0. Provide list of all assumptions used.
 - Maximum occupant load permitted by the 2015 NBCC. Clearly identify the density chosen (from Section 3.1.17.1. of the NBCC) and rationale for using that density.
 - Exit capacity of the building. Provide a table showing the measured dimensions of the exit (including stair clear width, stair rise and run; width of exit/egress door, etc.) for each floor and the resulting occupant capacity.
 - Provide a table listing the fire resistance rating of all exit stair doors.
- Conduct an Exiting analysis for all floors at the following densities: current occupant load, WP 2.0 load, maximum occupant load allowed by 2015 NBCC; and at exit capacity. Provide all calculation in an appendix, making sure to list/discuss all input parameters, assumptions, methodologies, etc. Summarize the results in a table and provide.

- Conduct a Time to Exit analysis, and ensure that the time includes time needed for occupant to reach an open public thoroughfare, or an exterior open space protected from fire exposure from the building and having access to an open public thoroughfare. List/discuss all input parameters, assumptions, methodologies, etc. Summarize the results in a table and provide all calculations in an appendix.
- Assess the requirements pertaining to high buildings and report on compliance of this asset. The deficiency that was noted was the lack of stairwell pressurization. The NBCC essentially requires that during a period of 2 hours after the start of a fire, each exit stair serving storeys below the lowest exit level will not contain more than 1% by volume of contaminated air from the fire floor. The analysis should compare the time required to evacuate the building vs the time that the stairwell would be contaminated by smoke (and hence no longer usable). If the evacuation time is lower than the time required to exceed the 1% by volume of contaminated air, then the existing condition is acceptable (i.e. no pressurization retrofits required).
- Vertical Transportation Systems:
 - Provide a Vertical Transportation Capacity Assessment, reviewing the existing installation to determine elevator quantity, speed, capacity and performance characteristics.
 - Provide a listing and budget cost to comply with full accessibility compliance to latest standards.
 - Set up an elevator simulation by computer model of the building. Input passenger density as observed, and provide a model of the performance of the elevator system including predicted average waiting times. This is to be then compared to PSPC requirements. As required, please provide several iterations with different configurations and passenger loading.
 - Relative to the requirements pertaining to high buildings, assess the requirements and report on compliance with respect to emergency operation of elevators and firefighter elevator.
- Mechanical Systems:
 - An overview of the existing mechanical systems within the building, that includes some granular information about individual major pieces of equipment (e.g., central AHUs, chillers, etc.);
 - The specific information sources used by the consultant for the evaluation (e.g., TAB reports, as-built drawings, shop drawings, building control systems, nameplate data, etc.);
 - An evaluation that determines the maximum amount of outdoor air and cooling the building mechanical systems can provide. The evaluation is to be supported by building specific data;

- As based on the building's maximum outdoor air and cooling capacity, an evaluation that determines the maximum occupancy that can be supported. Consideration is to be given to building zoning and distribution, unique office spaces (e.g., data centres), latent and sensible heat gain, etc. Utilize the most recent version of the applicable standards and codes (e.g., ASHRAE 62.1-2013); and
 - If a building's mechanical system capacity is unable to support the existing occupancy as per the applicable standards and code, detail where the shortfall exists (e.g., specific major pieces of equipment).
- Electrical Systems:
 - An overview of the existing electrical systems within the facilities;
 - Confirm the capacity of the Electrical Service supplying the facility and determine peak loading based on electricity usage records over the previous five years from the electricity supplier. Comment on the impact and cause of any upward or downward trends or shifts in usage;
 - Determine the percentage loading and available capacity of the electrical service;
 - Identify and indicate the ratings (kVA, amps, volts) of each primary transformer and where more than one primary transformer is present, estimate and tabulate the percentage draw from each of the transformers relative to the total load of the facility, based on existing occupancy, existing equipment, and available single line diagrams;
 - Determine the capacity of the main secondary distribution (e.g., risers) that would be impacted by an increase in occupancy;
 - Determine the maximum occupancy of each tower/block and for the entire facility based on the electrical systems. Include the electrical load of each FTE (e.g. work station power, task lighting, etc.) and the added mechanical loads to accommodate the FTEs; and
 - Determine if the potential increase in FTEs will have any impact on other electrical systems such as lighting, network/communications, and emergency power.
 - Sanitary Infrastructure:
 - An overview of the existing sanitary infrastructure within the facilities, including the barrier free washrooms; and
 - A table showing the total existing sanitary facilities per floor and an analysis of the maximum occupant load per floor based on the existing sanitary facilities using the 2015 NBCC. The analysis should define whether the calculation is for what occupancy and should show the calculations and the table used from the 2015 NBCC.
 - Compliance analysis of washroom facilities between the original NBCC that was applicable at time of construction and the 2015 NBCC.
 - Show (on floor plan) and discuss washroom locations, and determine the maximum travel distance to the washrooms.
 - Evaluate the adequacy of the sanitary infrastructure for the various densities, i.e. under Current/Existing state; WP 2.0; Maximum occupancy permitted by 2015 NBCC; and exit capacity. Show the details of the calculations, the reference table used from the 2015 NBCC, including any other references from codes and standards.

- Identify the number of barrier free washrooms.
- Workplace 2.0:
 - An overview of the building's existing occupancy per floor and for the facility as a whole (e.g., number of occupants);
 - An overview of the building's occupancy per floor calculated using Workplace 2.0 average value (14m²);
 - A summary table that shows whether each of the buildings systems have the capacity to serve the estimated increased Workplace 2.0 occupancy.

RS 7.10 Stand Alone Task 10 – Thermography Assessment

This section describes the work that the consultant/assessor will perform as a specific Stand Alone document.

General

1. Thermography assessments are an important inspection tool to identify issues or deficiencies in buildings that a visual inspection cannot provide. Thermography inspections are to be at minimum with thermal and digital still images and supporting narrative in a formal written report completed by a Certified Level II Thermographer (ITC).
 1. Report to include narrative and supporting images to highlight all areas of concern.
2. Inspections are intended to;
 1. Identify all components and systems, and;
 2. Ascertain their physical and functional condition.
3. Assessments involve;
 1. Visual inspections, and;
 2. Thermal scans of enclosures, including roofs, and electrical and mechanical components and systems using radiometric thermal imaging equipment (320w by 240h pixel image size minimum).
4. PWGSC to provide the following;
 1. Personnel to adjust HVAC systems;
 2. Qualified electrician to remove and replace all electrical covers, and;
 3. Digital file of general report format.

Purpose & Objectives of Thermography Assessement

1. Identification of heat losses in the building envelop includes walls, windows, roofs, and top of foundation to document locations or areas of;
 1. Heat loss;
 2. Moisture damage;
 3. Air and water infiltration;
 4. Conditions likely to support growth of mould and mildew;
 5. Condensation within enclosure.

2. Identification using a roof top infrared moisture survey to identify moisture trapped under the roofing membrane or at junctions in materials, including but not limited to;
 1. Water damaged roof membrane;
 2. Small roof integrity problems.
3. Identification of defective electrical and mechanical components, poor connections and overloaded circuits.

RS 7.10.1 Thermal Enclosure Scan Scope & Activities

1. Thermally scan all exterior walls from ground level and digitally record all thermal images indicating suspected anomalous regions.
 1. Where appropriate, thermal maps of larger deficient areas are to be recorded.
 2. All thermal images to have associated reference visual photo.
2. Ensure exterior walls are pressurized using the building HVAC systems to obtain a minimum of 20Pa from interior to exterior.
 1. This pressure differential to be initiated a minimum of 20 minutes before thermal scanning and during the full thermal scan.
 2. During positive enclosure pressurization, complete an interior and exterior thermal scan.
 3. After positive pressure scanning;
 1. Adjust the HVAC systems to provide a minimum negative 20Pa pressure across the exterior walls.
 2. Scan the walls from the interior and exterior complete with thermal images taken of notable deficient locations.
 4. After all thermal scanning is complete;
 1. Return all HVAC systems to normal operations, and;
 2. Differential pressure readings for both scenarios, should be taken with a digital pressure meter sensitive to 1Pa.
3. Conduct all thermal imaging a minimum of two hours after sunset.
4. Visually inspect during daylight hours complete with photos taken of general wall areas and full elevations where possible;
 1. Include photos of all thermal and visual anomalies.

RS 7.10.2 Roof Thermal Scan Scope & Activities

1. Thermally scan entire roof and digitally record all thermal images indicating suspected entrapped moisture regions;
 1. Where appropriate, thermal maps of larger moisture areas are to be recorded, and;
 2. All thermal images to have associated reference visual photo.
2. Outline with florescent paint all suspected entrapped roof moisture regions.
3. Conduct all thermal imaging a minimum one hour after sunset.
4. Visually inspect during daylight hours and photos to be taken of general roof areas and all thermal and visual anomalies;
 1. Mark-up supplied roof drawing to show all thermal and visual anomalies, and;

2. Verify all roof penetrations as per site conditions and update drawing.

RS 7.10.3 Mechanical and Electrical Thermal Scan Scope & Activities

1. Thermally scan all;
 1. Electrical panels with covers off/open to expose all line and load terminations.
 2. Operational and accessible pumps/motors and pulley/belt assemblies.
2. Visually inspect for any obvious Electrical Code violations while covers are off for thermal scanning;
 1. Digitally record all thermal image deficiencies in radiometric JPG format;
 1. Record thermal maps of equipment when camera operator is too close to capture line and load connections in one thermal image, and;
 2. Provide thermal deficiencies corresponding load readings for all applicable phases.
3. Prepare Electrical / Mechanical thermal deficiency report to include;
 1. PWGSC's fault priority table;
 2. Table itemizing all uncovered thermal faults and associated repair priorities;
 3. Summary section highlighting any major anomalies;
 4. Summary section on all obvious code infractions;
 5. Thermal image fault page having top-bottom image layout and respective image information table, image information to include;
 1. Photo – Location, Component, Breaker/rating, Phase Loading;
 2. Thermal Image – Filename, Date, Time, Distance, Emissivity, Ambient Temp., Reflected Temp, and;
 6. Thermal image fault page to have REMARKS section with complete thermal image analysis.

RS 7.10.4 Deliverables

1. USB flash drive containing;
 1. Draft and Final searchable pdf copy of thermal inspection report(s);
 2. Updated Drawings indicating location of anomalies;
 3. All original sized photographs taken during the site inspection.
2. Four (4) printed bond hard Cerlox copies of the report.

Appendix I –

SUMMARY:

All capital projects of the Real Property Branch are to be ranked according to a set of criteria that embodies the objectives, commitments and policies of the Real Property Program.

Capital project priority ranking is an analytical process to assist and guide managers to develop a consensus around informed and rational decisions about the capital investment program. It defines parameters and key variables, and provides valuable information to clarify and inform investment decisions. It is a support for management judgment in decision making, not a substitute for it.

OBJECTIVE:

The objectives of this policy are:

1. To establish the framework for the process of allocating the funds of the Capital Vote of the Real Property Program;
2. To establish the position of a specific project in relation to all other projects of the national program;
3. To assist in protecting the integrity of the capital budget of the Real Property Program, by ensuring the capital plan reflects the appropriate mandate, objectives and values;
4. To incorporate a businesslike approach in ranking projects;
5. To provide guidance to management for the inclusion and exclusion of projects as funding levels evolve; and
6. To assist in signaling costs and program implications associated with undertaking projects that do not meet businesslike criteria.

This section describes the work that the consultant/assessor will perform.

Policy Statement:

It is the policy of the Real Property Branch that:

1. All capital projects will be ranked according to the framework provided in this Appendix I.
2. The criterion weighting parameters referred to in Appendix I will be reviewed and confirmed within the context of the Expenditure Management System.
3. The Expenditure Management System and Long Term Capital Plan processes will use the Priority Rank as the primary tool to establish the future funding profile required by the Capital Plan.
4. The scores of all projects must be reviewed on a regular basis and re-calculated if any factors affecting the score are modified.
5. The Priority Rank of all capital projects will be subject to an annual review at the managerial level, prior to the finalization of the Expenditure Management System submission.

APPENDIX I - CAPITAL PROJECT PRIORITY RANKING FRAMEWORK:

Introduction

The Priority Ranking Framework provides a method of ranking capital investments in a rational and consistent way. It can be used to rank investments among any set of projects at the regional or national level. One of its main roles is to guide the selection of a portfolio of yet-to-be-approved investments which, together with capital expenditures already approved and committed, forms the basis for the Expenditure Management System and the Long Term Capital Plan.

In accordance with the Priority Ranking Framework, investments greater than \$1 million are rated, scored and ranked by Real Property Program Officers in the regions.

The Criteria for Ranking

Six criteria are used by PWGSC to rank capital investments. These are:

1. Financial
2. Strategy
3. Timing
4. Health and Safety
5. Tenant/User Effects
6. Government Policy and Initiatives.

These criteria reflect relatively distinct aspects of real property projects that are relevant to ranking them. In rating projects against these criteria, double counting should be avoided as much as possible. For example, "health and safety" factors might make a contribution to a number of criteria such as financial return and investment strategy. In such a case, the analyst must judge what has already been taken into account, and minimize duplication and double counting in rating the criterion entitled "Health and Safety".

The Criterion Weights

The criterion weight is a number that reflects the relative importance of that criterion. For the full set of criteria used, the weights always add up to unity or 100%. The convention used by PSPC is that each criterion is assigned a weight out of 100. The weights are a matter of judgment and are subject to revision as experience is gained.

Table 1: Criterion Weights

Criterion	Weight
Financial	30%
Strategy	20%

Timing	15%
Health and Safety	15%
Tenant/User Effects	10%
Government Policy and Initiatives	10%
Total	100%

The Criterion Rating Scales

Each criterion has a scale of "0" (lowest) to "5" (highest), although in some cases the allowable values on the scale are constrained. The analyst uses the highest applicable rating in all cases, based on a combination of analysis and professional judgment. Each rating must be substantiated by a statement of supporting evidence. Ratings for the same project can change over time as objectives and circumstances change. For example, a project that is rated low on "timing" one year, might see this rating rise in following years as the proposed work becomes more urgent.

Criterion 1: Financial

The financial rating is based on the internal rate of return for the project. It includes imputed rent and "other" costs and revenues.

- In some situations, it may make sense to use the same IRR for a number of related projects. One example may be when a renovation program comprising several projects is undertaken for a single asset. Individual projects of such a program may take the value of the IRR for the whole property, as set out in the Asset Management Plan in which renovation is compared to alternative ways of meeting the tenant's needs.
- Capital projects involving non-building assets for which an IRR cannot be readily calculated, may be rated "3" on this criterion, if it could be demonstrated that significant benefits will be maintained or realized as a result of the capital project.
- Capital projects within the Parliamentary Precinct may be rated "3" on this criterion, when comparable estimates of market-based rental rates are unavailable.
- A rating of "3" may be used for this criterion where reasonable "ballpark" estimates have been used to calculate an IRR. This allowance assumes that, as planning continues and estimates become more accurate, the rating will be re-assessed. Caution must be exercised in using this allowance and if used it must be clearly identified in the Capital Project Briefing Note.

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Scale

- 5 internal rate of return > hurdle rate plus 2%
- 4 internal rate of return > hurdle rate plus 1%
- 3 internal rate of return > or = hurdle rate
- 2 internal rate of return > hurdle rate minus 1%
- 0 internal rate of return < hurdle rate

minus 1%

Criterion 2: Strategy

The strategy criterion includes all business-like aspects of PSPC's national, regional and community strategies, apart from the financial return calculation. These are mainly concerned with minimizing risks to the federal government through such measures as divestiture, introducing new technologies, and balancing. The portfolio between owned and leased properties. The underlying assumption for all capital projects is that they all comply with the principles of the MS and thus do not automatically rate a "5". To receive a high rating on strategy, the project must have special importance for the broad real property program, apart from its stand-alone investment characteristics. Capital projects specifically identified in an approved national sub-strategy, would qualify for a rating of "5", e.g. Wharf Disposal.

Scale

- 5 identified in a PSPC real property strategy at the national level
- 4 identified in a PSPC real property strategy at the regional level
- 3 identified in a PSPC Community Based Investment Strategy (CBIS)
- 2 identified in a PSPC Asset Management Plan
- 0 no positive effect on PSPC real property strategy

Criterion 3: Timing

The timing criterion includes all factors that contribute to urgency. The urgency rating should be based on a professional assessment of the degree to which delay would result in increased risks, increased net costs or forgone revenues for the Government of Canada. In addition, deadlines that are beyond the control of PSPC are taken into account in rating this criterion.

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Scale

- 5 must be started now
- 4 must be started in the coming fiscal year
- 3 could be started one year after the coming fiscal year
- 2 could be started two years after the coming fiscal year
- 1 could be started three years after the coming fiscal year
- 0 could be started more than three years after the coming

fiscal year

Criterion 4: Health and Safety

Any aspects of health and safety, apart from those adequately dealt with in previous criteria are considered here. Ratings on this criterion may be affected by health and safety legislation, regulations or PSPC's own objectives. To receive a "4" or a "5" on health and safety the investment would need to have critical non-monetary "health and safety" implications. A rating of "5" would require that the facility has been vacated pending resolution of the problem. A rating of "4" would require that corrective action is underway to avoid widespread or severe injury to health.

Scale

- 5 remedies high likelihood of fatalities
- 4 remedies small likelihood of fatalities
- 3 remedies risk of severe injuries and/or negative health effects
- 2 remedies risk of many minor injuries and/or negative health effects
- 1 remedies risk of a small number of minor injuries and/or negative health effects
- 0 no positive health and

safety effects

Criterion 5: Tenant/User Effects

Two types of tenant/user effects might not be fully captured in the above criteria. These are tenant program delivery improvements (including those relating to internal efficiency) which are difficult to

express in dollars, or external benefits to the public. The analyst must evaluate the negative effects on tenant program.

Delivery, if the project is not completed. Renovation of a departmental national headquarters building would not receive a rating of "5", however renovations to all departmental offices across the country resulting in an improved program delivery would receive a "5".

Scale

- 5 resolves or contributes to resolving tenant/user requirements from a national perspective
- 4 resolves or contributes to resolving tenant/user requirements from a regional perspective
- 3 resolves or contributes to resolving tenant/user requirements from a community perspective
- 2 minor contribution to resolving tenant/user requirements
- 0 no positive contribution to resolving tenant/user requirements.

Criterion 6: Government Policy and Initiatives

The Government of Canada has multiple objectives with respect to real property management. These include objectives that are particularly important for the public sector, such as accessibility, promotion of heritage values, implementation of the Federal Code of Environmental Stewardship, and regional economic and social development (job creation). A rating of "4" or "5" on Government Policy and Initiatives must be supported by a written analysis of the importance of these public policy objectives and their application in this case.

Scale

- 5 Contribution to government policy and initiatives of national significance
- 4 Contribution to government policy and initiatives of regional significance
- 3 Contribution to government policy and initiatives of community and local significance
- 1 Minor contribution to government policy and initiatives
- 0 No positive effects on government policy and initiatives .

Calculating Priority Scores

Each capital investment is ranked against all others regionally and nationally, according to its "priority score". The priority score is calculated by multiplying each rating by the weight for the criterion, and adding together the resulting criterion scores to obtain a total score for the investment.

Rating = likely performance on a particular criterion, scaled from 0 to 5

Weight = importance of the criterion, scaled from 0 to 100

Score = rating x weight

Priority Score = sum of the criterion scores (maximum 500).

Table 2: Example of a Priority Score Calculation

Criterion	Weight/100	Rating/5	Score (R x W)
Financial	30	3	90
Strategy	20	5	100
Timing	15	3	45
Health and Safety	15	4	60
Tenant/User Effects	10	4	40
Government Policy and Initiatives	10	2	20
PRIORITY SCORE (Total)			355

ANNEX I - CALCULATION OF PERCENTILE RANK:

Percentile rank is a measure of the rank of one project compared to all others, based on a scale of 0 to 100. If a project is at the 80th percentile, this means that 80 percent of all projects in the group being considered rank below this given project. A percentile rank does not indicate the absolute value of the project, only its relative rank

To ensure consistency in calculating the priority rank of capital projects of the Real Property Program, the following convention is to be used. The percentile rank of an individual project is determined by establishing what the proportion of the projects below it are to the total set of projects. Thus, when calculating a percentile rank, the individual project is included in the total set of projects, but is excluded from the projects below it. It follows that projects which have the same project score have the same percentile rank. Furthermore, the normal rules of rounding apply when using percentiles. For example, the percentile rank of ten projects is as follows:

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Table 3: The Percentile Rank of Ten Projects

Project	Project Score	Percentile
Project Y	495	90
Project D	477	80
Project L	450	70
Project A	430	50
Project X	430	50
Project B	395	40
Project Z	380	20
Project E	380	20
Project M	325	10
Project O	321	0

Appendix II - AMP template for analysis

AMP Report Content Requirements:

The following pages detail the information and content requirements for completing the Asset Management Plan (The AMP).

Executive Summary:

The Executive Summary is a key section of the AMP. It provides a brief overview of the most essential information regarding the asset. It is a high level summation of the important information that flows from the option analysis, the BCR and the appraisal. It outlines conclusions, recommendations and should clearly identify any required actions that must be taken with regards to the asset. It is to be limited to three pages.

a. Content Requirements:

The first part of the executive summary should describe the asset's location, when it was built, floor area and the main use. It should also comment on the main findings and provide a summary conclusion from the sections of the AMP. This should include:

1. Description of the physical condition of the asset, identifying major problems or deficiencies
2. A narrative describing the operational, functional and financial performance of the facility along with a brief high level narrative discussing the asset's Heritage attributes if any.
3. Identifying key issues and conclusions pertaining to building performance,
4. **(Table 1)** showing the total amount of major repair and capital spending required for each year over the next upcoming five-year period.
5. Identification of the largest and most urgent projects required over the same period
6. Brief summary of the conclusions to the Options Analysis leading to a final recommendation an appropriate strategy for the asset, including a Financial Analysis Table **(Table 2)** the recommended investment strategy
7. Conclude the Executive Summary with a signature block **(Table 3)**.

1. Asset Description:

Under this section the consultant is to provide a high level overview in a table format of the salient facts concerning the asset. This table provides the reader with a general understanding of the key characteristics regarding the asset.

1. Content:

1. (Refer to **Table 1-1** for the Table Format)

2. Asset Condition:

The purpose of this section is to identify key findings concerning the physical condition of the asset (briefly summarized from the Building Condition Report).

1. Content:

1. General narrative that summarizes the overall physical condition of the facility relating to and based on the FCI rating (poor, fair, good, excellent). The narrative should also outline briefly where this asset is in its lifecycle (i.e. beginning, mid-life, 2nd life renewal, etc.) based on the findings in the BCR.
2. List and briefly describe recent major component replacements and or renovations were undertaken during the past 10 years.
3. Specifics of condition of building's major systems and components (e.g. Architectural and structural, conveying systems, mechanical systems, electrical systems).
4. Summary of 5 and 30 year repair and capital work plan in a graphical representation
5. The conclusion should identify the largest and most urgent projects required for the upcoming five-year period.
6. The 30-year work plan for the building proposed in the BCR should be evaluated in terms of its completeness in responding to all building deficiencies and recapitalization requirements as well as whether it is realistic in terms of funding and implementation capabilities. Based on this evaluation, the BCR work plan may be modified to become the recommended Program of work. This section of the AMP should indicate the total cost of the Program of work over five years and over 25 years, as well as the annual spending by year for the first five years of the Program of Work.

3. Operational Performance:

The consultant is to examine the ability of the facility to comply with all codes and standards in areas such as health and safety, accessibility, environmental standards and energy efficiency. The consultant is also to comment on the daily operations and performance of the asset and how major issues are addressed and resolved.

Operational performance is frequently verified through operational compliance audits, and is generally commented on in the BCR. This information is required as part of the AMP and shall be reported through a checklist indicating the successful completion of these audits and the date of the audit, followed by a discussion of any deficiencies. The operational compliance checklist is presented in **(Table 3-1)**.

a. Content:

The narrative that would follow the operational compliance checklist is to include the following:

1. Description of the current approach to the management of the asset (Are daily operations, such as cleaning and maintenance, being effectively carried out? Are there any indications of user dissatisfaction with respect to daily operations?);
2. Discuss any areas of non-compliance with codes or standards identified in the operational compliance checklist. Describe any deficiencies that exist, as well as any remedial action that may be required (addressing areas of non-compliance only);
3. Separate heading for compliance or non-compliance with accessibility standards, and indication as to which year standard. Reference the date of the last Accessibility Audit.
4. Discuss in some detail some of the more important operational performance measures and issues along with providing data relating to the facility management indicators. Reference the BCR, Building Management Plan and Appraisal for information (Tables 3-2 and 3-3);
5. The conclusion should indicate general level of operational performance, highlight areas for further action, and identify costs involved to bring the building into code compliance or to enhance the operating performance of the building. Ensure that any necessary projects have been incorporated into the Program of Work.

4. Functional Performance:

This section refers to the ability of a facility to satisfy the program delivery requirements of its clients.

a. Content:

1. Client Satisfaction (e.g. results of client survey).
2. Portfolio Strategy for Asset and/or Client Functional Requirements What are the key functional requirements of users and are they being met? Summarizes any key conclusions from client accommodation strategies, where available. What is the client's future space requires.
3. What deficiencies exist within the building that detracts from its ability to fulfill its assigned role?
4. What new systems, features or components will be required in the facility as its role changes over the upcoming planning period?
5. Comment on the extent to which the design and configuration of the building supports the building's functional role.
6. Does the building have adequate space for the functions it supports?
7. Comment on the efficiency of space utilization. Is it reasonable, how does it compare with other assets or standards for space utilization? Are there opportunities to optimize the use of space within the building?
8. Report the number of calls made from the client/tenants to the National Call Centre. Provide a statement on tenant satisfaction based on the Call Centre data. (Table 4-1)

Trend analysis? Julie to look for example that SNC used as part of their BMP presentations.

9. Conclusions: should address the longer-term suitability of the building, limitations on its use, its flexibility and adaptability to possible changes in utilization. The conclusion should also highlight any areas that have been identified for further action, and make any recommendations concerning improving functional performance of the building. Identify any costs involved to enhance the functional performance.

5. Market Analysis:

The Market Valuation (Appraisal) is one of the key financial components in the overall Asset Management Plan development. The appraisal/valuation process is based on a comprehensive analysis of the building's functional and financial performance ranging from its highest and best use to its potential to generate income to its ability to compete in the local market. The appraisal analysis is a major input to the AMP option analysis and is used by PWGSC as one of the leading documents that drive the business decisions for the asset. The appraisal analysis is completed independent of the AMP itself and will be made available upon its completion.

The purpose of the section is to capture the essential valuation data and market information pertaining to the asset. The following appraisal sections should be briefly summarized and incorporated into the AMP document.

a. Content:

1. Local Market Context:

- a. Community and Neighbourhood context (demographic information, economic prospects of relevance to the asset, description of surrounding area)
- b. Commercial development trends (developments that may impact the asset)
- c. Recent trading activities and pricing
- d. Investors and their influences that may be driving local real market conditions
- e. Outlook for the local commercial office real estate market and the market in general

2. Market Survey:

- a. Vacancy rates and Rental rates
- b. Relevant market trends
- c. Market demand in public and private sectors
- d. Key findings/conclusions and implications

3. Asset Valuation:

- a. Highest and Best Use (Definition of Highest and Best Use and a brief assessment of the findings from the appraisal)
- b. Income Approach to valuation using the Discounted Cash Flow analysis. Market value based on current condition.

- c. the Replacement Cost New of the building to determine the Facility Condition Index (FCI)
- d. A vacant land value estimate
- e. The improvement's replacement cost new, effective age, remaining economic life, and the depreciated replacement cost.
- f. A reasonably good narrative explaining the highest and best use of the site.
- g. exposure time analysis

Conclusions (**summary of the analysis and major findings are to be well defined**)

6. Financial Performance:

This section deals with providing a good examination of the financial performance of the asset based on its current use functional performance and overall building design. The focus here is on cost performance.

Content:

Past and current performance:

- Present 3 years' actual results and forecast results for the current year. This should be presented in a table format (**Table 5**).
- Present Pro-forma Unit Values (**Table 6**).

1. Revenue Sources and Rentable Areas (Table 6.1)

- Identify type of space and rentable areas
- Provide information on Rental Rate Structure

Operating costs:

Assess the financial performance of the facility with respect to its operating costs in a table format using benchmarks (i.e. National Average, BOMA Average, NCA, or Community Average and Provincial Average as appropriate). Comparisons of these benchmarks are made against other public and private real property organizations. This has included federal, provincial and municipal organizations who are members of the National Executive Forum on Public Property, as well as public and private members of the Real Estate Executive Board.

(Note: This applies to other performance indicators, not just operating costs, but not to all PWGSC performance indicators).

Forecasted / Potential Financial Performance

- 5-year financial forecast
- 25-year financial forecast
- Conclusions: Does the asset/property represent good investment value? Are operating costs in line with BOMA standards and how could the financial performance be improved?

7. Strategic Content

Purpose: to provide a strategic analysis of the NIS, CBIS and RIS as they relate to the facility and how the asset is performing in the NCA portfolio.

Content:

- Key elements and strategic directions from the NIS, CBIS, Node strategies, if appropriate, and the RIS relevant to the asset.
- This section should state whether or not the proposed plan and the identified options address and adhere to the NIS and CBIS; it should not present the principles described in the NIS.
- Property-specific opportunities and limitations (e.g. government-wide and PWGSC priorities and objectives).
- A Strategic Building Location Assessment.
- Conclusions: should summarize the strategic role of the facility given the tenant's needs and base on its ability to provide value to federal government program requirements.

Option Analysis:

In this section of the report the consultant is to examine the full range of options available for the asset and to recommend an approach for the building that is realistic, and allows program requirements to be met in an effective and least-cost manner. Appendix "D"

Content:

- Brief summary of key points concerning the evolving role of the asset from the Strategic Context section.
- Analysis of strengths, weaknesses, opportunities and threats facing the asset (SWOT Analysis). Use point form.
- Discuss the impact the asset has on the overall market such as short term and long term opportunities in the market and its competitiveness among like buildings.
- Identify and discuss factors or scenarios driving the options analysis. What are the program needs that may influence future options for the asset?

- Identify the full range of possible options concerning the future utilization of the facility.
- Evaluate the suitability of each available option. The evaluation of options can frequently be qualitative, as options may be able to be eliminated as a result of readily-identifiable shortcomings. However, in some situations, it may be appropriate to undertake a more detailed analysis of the available options, including a financial analysis and a risk assessment.
- Conclusion should identify which option is preferred and why. It should also identify any related implications or risks associated with the preferred option.

Summary and Recommendations:

The consultant is to provide the AMP Summary as a standalone document. This document is to briefly summarize the most important findings and recommendations from the AMP, Appraisal and the BCR exercises.

Content:

- Recommended investment strategy/management plan for the facility. Include all of the recommendations put forth in each section of the AMP with respect to improving the operational, functional or financial performance of the facility. Identify whether the AMP strategy involves any change in the role of the facility.
- Develop an implementation plan covering all actions required to carry out the AMP strategy. This plan should include a recommended Program of Work for the asset identifying priority actions, the timing of any actions, planning steps, required approvals, and the persons responsible for implementation.
- Comment on the urgency of any required actions.
- Identify and discuss the potential strategic impact of the recommended strategy on programs, and on broader corporate strategies (i.e. CBIS).
- Identify any implications for other facilities.

Appendices:

The AMP report is to provide the detailed information needed to support the analysis and conclusions of the main sections of the AMP. The use of appendices for detailed information allows the main document to be shorter and more user friendly.

Content:

- Site Plan, Floor Plans and/or Picture of Facility
- 25-Year Program of Work
- Financial Analysis
- Options Analysis- (all spreadsheets outlining the analysis of the options are to be included as part of the AMP Report).
- National Investment Strategy
- Federal Heritage Buildings Designation / Classification

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Appendixes & Tables

Tables to be included in AMP Executive Summary Section:

Table 1

FIVE-YEAR WORK PLAN TABLE TO BE INSERTED IN THE EXECUTIVE SUMMARY

	Years					Total
Repair						
Minor Capital (less than \$1M)						
Major Capital (greater than \$1M)						

Table 1-A

FINANCIAL ANALYSIS TABLE FOR OPTIONS CONSIDERED TO BE INSERTED IN THE EXECUTIVE SUMMARY

FINANCIAL ANALYSIS OF OPTIONS			
Options	25 Year PVCOA	Net Present Value (\$M)	Internal Rate of Return (%)
Option 1			
Option 2			
Option 3			

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Table 1-1

Asset Description

DESCRIPTION						
Asset Name:			Type:			
Address:			Responsibility Centre:			
Client(s):			Occupancy Type: Management Responsibility: FHBRO Designation: FBI: Yes/No/When			
Site Area: Maximum Permitted Building Area: Land Use: Building Characteristics: Building Class:			Legal Description: Zoning:			
Public Utilities and Services: Site Access: Services:			Parking Available: Parking Requirement under Zoning 150:			
Construction Date: Major Renovation Dates: Purchase Date: Purchase Price: Space Optimization: Federal Occupancy: Square Metres per FTE:			Floor Areas: Gross: Rentable (R): Office Storage Commercial Total Useable (U):			
OCCUPANCY						
Current Building Occupancy Rate: Portfolio CMA			Expiring		Projected Average	
Vacancy Rate:			Ol's/Leases:		Occupancy Rate:	
Market Vacancy Rate:						
MARKET DATA						
Market Value (Stabilized Occupancy):						
Vacant Building Market Value (if applicable):						
Vacant Land Value:						
Effective Gross Rents:			Market	Actual	Maximum building Density Utilization:	
Office					Highest and Best Use as Improved:	
Commercial					Highest and Best Use:	
Storage						
Capitalization Rate:						
BUILDING CONDITION INDICATORS						
Chronological Age:		Effective Age:		Remaining Economic Life:		
FIVE YEAR CAPITAL AND REPAIR BUDGET						
	Year	Year	Year	Year	Year	TOTAL
REPAIR						

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CAPITAL						
TOTAL						
25-YEAR CAPITAL PLAN						
Total 25 Year Capital Budget:		Total/m²:			Annual cost of Capital/m²:	
FINANCIAL ANALYSIS						
5 Year ROI:	YR 1			EACOA (25 year): O&M PILT CAPITAL HOLDING* Total EACOA *PV of Initial Investment Less Reversion Value		
	YR 2					
	YR 3					
	YR 4					
	YR 5					
5 Year Average:						
25 Year ROI:						
NPV:						
OPERATIONAL / FUNCTIONAL INDICATORS						
AFD: Code/By-Law Compliance: Energy Efficiency Rating: Seismic Rating: Building Efficiency: Churn Rate: Tenant Satisfaction:						
DESCRIPTION SUMMARY						
Describe in some summary detail the asset's overall condition relating to the following major components. Architectural: Mechanical/Electrical: Accessibility: Environmental:						

Table 3-1

This table outlines the operational compliance guidelines applicable to the Asset.

OPERATIONAL PERFORMANCE CHECKLIST

GUIDELINE	NAME OF BUILDING
Accessibility compliant	Make reference to the current "Accessibility Standard for Real Property" and the Real Property Accessibility (RPA) Policy. Briefly discuss their purpose and generally highlight their policy content.
Provincial/National Building Code Compliant	Reference and discuss briefly the current Ontario Building Code, National Building Code of Canada and the National Fire Code (NFC). (See BCR)
National Fire and Safety Code Compliant, including evacuation plan compliant	Reference the source of material that deals with Fire and Safety and the current building's evacuation plan (i.e. the last update and any noted deficiencies in the plan). (See BCR).
Canada Labour Code Complaint	Julie?
TBS Temperature, Humidity and Ventilation	Reference the Treasury Board's "Occupational Safety and Health Directive" (effective January 1, 2006), Part II, 2.2 Environmental Conditions and its guidelines for temperature, humidity and ventilation in buildings occupied by Public Service employees. (See BCR)
Local By-Law Compliant	Briefly outline the current zoning for the asset and its compliance.
Regularity of testing records	From the BCR discuss equipment and systems regulatory testing requirements for any of the following items. (The last and next update). Mechanical: Electrical: Vertical Transportation: Emergency Generator: (See BCR)

Table 3-2

Table 3-2 provides commentary on some of the more important operational performance measures/issues. Except where identified, Operational Performance statements should be excerpted from the most recent Building Condition Report.

TABLE ENVIRONMENTAL ISSUES

ITEM	COMMENTS
Fire & Life Safety	<p>Discuss in some detail the findings from the BCR with respect to Fire and Life Safety issues. Commentary should address but not limited to the following items:</p> <ul style="list-style-type: none"> • Are the stairways adequate to serve the present reported occupancy? Do they meet exit capacity compliance? (i.e. fire code requirements). • Does the heritage nature of the building impede making the necessary adjustments and or corrections to certain parts of the asset to address life and safety issues? • Do the evacuation plans require updating to reflect changes made to the building such as new exits etc? • Note any Fire Detection/Protection (Deficiencies). • Are any of the noted deficiencies expected to be dealt with in any renovation program if planned?
Accessibility	<p>Focus should be mainly on the findings of audits and their recommendations. Describe any non-compliance issues and any of the accessibility challenges the asset is facing. The RPA policy is directed at ensuring barrier-free access to and use of government facilities and includes requirements for accessible washrooms, tactile signage, and assistive listening devices. Audit and Ethics Branch identify 10 categories of specific standards from the CSA CAN/CSA-B651-M95, Barrier-Free standards. Comments on these categories are required.</p>

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Indoor Air Quality	The BCR should reference the IAQ audits and their findings and recommendations (i.e. humidity levels in the building and temperature control problems if any. Also any ventilation problems with the building should be identified and discussed here along with air circulation. Further discuss whether the mechanical systems are contributing to in-door air quality problems and if so what measures are being taken to correct the issues.
Energy /Management Consumption	Identify if a Go-Green Heritage assessment or any energy audits have been completed for the building. Outline the main findings and recommendations of these reports and studies. Discuss any upgrades that have been completed to the electrical systems in this building over the years, including reported Federal Building Initiatives (FBI) work.
Water Consumption/Conservation	Make reference to the Potable Water Quality Assessment if one was completed. Outline its findings and recommendations.
Other Environmental Items	Reference should be made to PWGSC's latest Sustainable Development Strategy (SDS). It contains goals and targets related to sustainable design, construction as well as renovation and management of its building portfolio. Information regarding environmental issues relating to the building should focus on previous reports and studies (BCRs as presented in AVS tool format, any asbestos reporting, Phase I and Phase II & III Environmental Site Assessment reporting, Property Manager and tenant questionnaires and any Waste Audit reports. Other environmental issues should include: <ul style="list-style-type: none"> • Air Emissions: • Asbestos Containing Materials (ACMs): • Lead Containing Materials: • Ozone Depleting Substances (ODS): • PCB Containing Equipment:

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Security	If a threat and risk assessment was prepared for the building and its occupants provide an overview of its findings and recommendations as they relate to the security nature of the building. In some cases the T&R is a client driven initiative.
Elevators	Identify the number and types of elevators in the building. Comment on the condition of the vertical transportation. Has it been well maintained/and properly serviced. Do the elevators perform adequately to meet the needs of the building occupancy? Are there any constraints within the building from a structural prospective that impedes updating the elevators with respect to the heritage features of the building?
Heritage Designation	Discuss whether the Federal Heritage Buildings Review Office reviewed the building and site. Briefly discuss the building's Heritage Designation if any and outline any stringent development and design restriction especially if a renovation program is being planned. Reference should be made to the Heritage Statement in the BCR relating to the heritage nature and attributes of the building and its components.

Notes:

- 1) Discuss the Environmental performance of the building, and its compliance with the sustainable development policies of the federal government. This should include the identification of any contaminants that may be present, and how they are being handled.
- 2) Discuss the performance of the building with respect to energy efficiency. Are energy costs in line with what might be expected for other buildings of similar size and use? Identify any factors that may cause energy costs to be high, as well as any actions that may be considered for reducing energy costs.

Table 3-3**Facility Management Indictors**

Occupants =	
Useable area =	
Rentable area =	
Gross area =	
Rentable area/occupant =	
Building efficiency (rentable area ÷ gross area) =	
Electrical energy usage =	
Natural gas usage =	
Steam/hot water =	
Chilled water =	
Water =	
Occupancy =	
Gross to usable area ratio =	
Gross-up factor =	

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Description	Formula	(A)	(B)	Results
Efficiency Ratio (%)	$(\text{Rentable Area} / \text{Gross Area}) \times 100$			
Vacancy Rate (%)	$(\text{Unoccupied Rentable Area (A)} \div \text{Rentable Area (B)}) \times 100$			
Density Ratio (%)	$(\text{Rentable Area (A)} \div \# \text{ of Workstations/Occupants (B)})$			

Table 4

Table 0-1, National Service Call Centre Dispatched Called

Reason for Service Call	Number of Calls
Cleaning	
Interior Lighting	
Elevators	
Electrical	
Fire and Life Safety	
HVAC	
Other Building Maintenance	
Plumbing	
Roads and Grounds	
Security	
Structural / Roof	
Environmental	
Waste Management	
Total	

Table 5

FINANCIAL PERFORMANCE PRO-FORMA TABLE

Description	(Insert Year) Planning Year	Previous Year 1	Previous Year 2
Revenue:			
Reimbursing – Parking			
Commercial			
Non-Reimbursing			
Total Revenue			
Operating Expenses:			

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Cleaning O&M, Labour, Minor repairs Utilities Roads/Grounds/Security Administration PILT			
Total Operating Expenses			
Project Plan Repairs & Other			
Total Expenses			
NOI			
Capital Projects			
Net Cash Flow			

Table 6

PRO-FORMA UNIT VALUES

Description	(Insert Year) Planning Year	(Insert Year) Unit Values
Revenue: Reimbursing – Parking Commercial Non-Reimbursing		
Total Revenue		
Operating Expenses: Cleaning O&M, Labour, Minor repairs Utilities Roads/Grounds/Security Administration PILT		
Total Operating Expenses		
Project Plan Repairs & Other		
Total Expenses		
NOI		
Capital Projects		
Net Cash Flow		

Table 6-1

Area Breakdowns

Type	Square Metres	% of Rentable Area
Gross Area		
Rentable Areas		
Office		

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Commercial		
PWGSC		
Security		
Amenities		
Total Rentable Area		
Useable Area		

Table 6-2

Comparing Unit Operating Costs

	Cleaning	Repairs/ Maintenance	Utilities	Security	Administration	PILT	Total
Building							
National Average							
Community Average							
Provincial Average							
BOMA Average							

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APPENDIX "B"

AMP SUMMARY

Building Name:

Building Address:

<u>Occupancy Information</u>	<u>Building Information</u>
Clients/Tenants (Federal):	Responsibility Centre:
Clients/Tenants (Private):	Type: Crown Owned – PWGSC
Management Responsibility: PWGSC	No. of Buildings:
Land Information	No. of Floors:
Asset Type: Outline whether the asset is used for office or special purpose accommodation.	Building Class:
Zoning:	Heritage / FHBRO Designation: "Classified"
Parking: Type of parking spaces (heated underground and or surface parking). See BCR	Environmental Performance Designations – BOMA Best, LEED, etc.
Legal Description: Provide the legal description for the asset.	FCI
Parking Stalls: Discuss the number of parking stall both underground and surface. See BCR & Appraisal	Construction Date:
Parking Requirements Under Zoning: Market norms compared to actual spaces both underground and surface.- Appraisal	Major Renovation Dates:
Public Utilities and Services: Brief outline of the various municipal services available to the property and if the property is connected to a centre heating and cooling plant utility. See Appraisal & BCR	Purchase Date: N/A – Crown Construct
Site Access: Vehicular access from Wellington Street. The site is also well serviced by public transportation.	Purchase Price: N/A – Crown Construct
	Market Value (Stabilized Occupancy):
	Vacant Building Market Value: See Appraisal
	Vacant Land Value: Amount and Effective Date: See Appraisal
	Payment in Lieu of Taxes: See Appraisal
	Floor Area (m2): See Win Fin Data files
	<ul style="list-style-type: none">• Useable area• Rentable area• Gross area

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Land Area: Appraisal & Win Fin documents	Occupancy:
Maximum Permitted Building Area: Appraisal	• Federal/Other: Percent Occupancy
.	Square Meters per FTE Population:
Legal Land Use: Description of current use and compliance to legal use. Appraisal	Space Optimization:

1. Executive Summary
This section is to embody the key elements found in the Executive Summary of the AMP document.
2. Asset Description
Brief description of the asset outlining any special attributes. Reference information from the BCR .
3. Asset Condition Refer to BCR

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General:

A general outline of the overall condition of the asset and any planned program of work for the asset (renovations program and or any major component replacement). The AMP consultant will also be expected to further outline the condition of the asset by providing a brief narrative describing the overall condition of each of the major base building components listed below.

- **Site**
- **Structure**
- **Roof**
- **Exterior Walls**
- **Windows & Doors**
- **Interior Finishes**
- **Mechanical Systems**
- **Electrical Systems**
- **Heritage**

Vertical Transportation

Highlight the main characteristics of the vertical transportation system for the building:

- Number and type of elevators
- Overall condition of the vertical system
- Last updated if applicable
- Next update or replacement if planned.

Security

Provide a brief overall condition of the system along with the expected remaining service life. Also provide a one line sentence when the next update and replacement of the system is scheduled.

4. Operational Performance Reference BCR and other related documents

Fire & Life Safety:

The consultant will provide a brief narrative outlining the following life and safety issues.

- Code issues as they relate to life safety and how they impact on any FHBRO components.
- Evacuation plans.

Accessibility

- Highlight issues from the Accessibility Audit Report. Discuss any non compliance accessibility issues

Indoor Air Quality

- Briefly discuss any poor indoor air quality issues and concerns and how air quality will be addressed going forward. Reference any reports and or studies reviewed.

Other Environmental Items

Asbestos Containing Materials (ACMs):

A 2002 Asbestos report included visual inspection and testing of samples and yielded both positive and negative results. Asbestos containing material was noted in the building. Asbestos abatement will be carried out as part of the major building retrofit.

Lead Containing Materials:

Ozone Depleting Substances (ODS):

PCB Containing Equipment:

Security

- Date of the last Risk Assessment completed for the building and occupants.

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5. Functional Refer to Appraisal**Building Efficiency Ratio:****Vacancy Rate**

- **Market Vacancy Rate:** 5.4% (Class A, CBD, (Q1/01)
- **Building Vacancy Rate:** 0.3%
- **Projected Average Occupancy Rate:** 100%
- **Expiring Ol's/Leases:**
- **% of Workstation Types (Open/Closed):** N/A

Tenant Survey Information:**Concluding Statement:****6. Market Refer to Appraisal Information & Data**

- **Market Value (Stabilized Occupancy):**
- **Vacant Land Value:**
- **Market Rental Rates:** Gross Effective rates of /m² Gross Effective Rents: /m²

7. Financial Refer to AMP Document**Scenario 1 (Retention with BCR Recommended Retrofit):**

	2014	2015	2016	2017	2018
Gross Effective Income					
Expenses					
N.O.I.					

- **Comments:**
- **Unit Cost Comparison:** Projections for both revenue and operating compared to market benchmarks.

8. Strategic**9. Development/Redevelopment Potential Refer to Appraisal**

- **Highest and Best Use:** Refer to Appraisal Document
- **Options Analyzed:** Refer to Findings from the Option Analysis

10. Recommended AMP**Best Option: Recommendation from AMP and Option Financial Analysis**

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Appendix "C"**PWGSC Documentation/Report Check-list**

Document Name	Available	Not Available
Previous Building Condition Report (BCR)	✓	
Current Draft Building Condition Report and Event Listing	✓	
Building Capacity Study	✓	
Building Functionality Assessment	✓	
Level Three Technical Studies	✓	
Client's Functional Needs Assessment		
Drawings	✓	
Financial and Other Documents	Available	Not Available
Building Management Plans (3 years)	✓	
Building Planning Documents	✓	
Previous AMP	✓	
Operating Instrument	✓	
National Service Call Records	✓	
Criticality Assessment		
Workplace 2.0 Policy	✓	

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Appendix D – Options Analysis

Financial Input Factors

Escalation Rates

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Appendix D – Options Analysis

Financial Input Factors

Escalation Rates

Item	Rate
Land	
Service Fee	
Construction & System	
Lease Purchase	
Rent	
O&M	
Taxes	

Discount Rates

Item	Discount Rate
Annual Effective rate 25 years (long term Canada Bonds)	
Consumer Price Index	

Fees

Item	Fee
PWGSC Property Management	
PWGSC Leasing	
PWGSC fees on Capital Works	
Developer Fee on Capital	
Contingency, New Construction	
Contingency, Renovation	
PWGSC Implementation Fee	

Amortization Periods

Amortization	Years
New Construction	
Renovation (Initial Capital)	
Sustaining Capital	
Fit-up	

Refurbishment Costs (Office)

Element	Cost Base
Refurbishment	
Moving & Signage (within site)	
Consultants	
Disbursements	

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Contingency	
A&E	
Property Management	

Fit-up Costs (Office)

Element	Cost Base
Fit-up costs	
Moving & Signage	
Consultants	
Disbursements	
Contingency	
A&E	
Property Management	-up

Option-Specific Assumptions**Option 1: Asset Retention - with BCR Upgrading**

- The financial analysis is performed on a before-tax cash-flow basis with the equity position at 100% and a 25-year investment horizon assumed to commence 2015.
- Operating costs are based on 2015.budget estimates;
- All recommended BCR work plan items would be implemented;
- Market value of the asset (See Appraisal) is included as opportunity cost;
- Present value of the residual (reversion) is the present value of the estimated market value of the asset in Year 25. The market value is estimated by applying the reversion capitalization rate to the net income in Year 26;
- Net rents are stabilized for a five year term and will increase every subsequent term by the escalation rates quoted herein;
- Space will be refurbished every 10 years at the prescribed rates herein; and;
- Operating costs and taxes increase annually as per the PWGSC escalation rates identified.

Option 2: Asset Disposal and Lease Back

- The asset will be sold and PWGSC will lease the entire building (see below);
- The market value of the asset is considered to be the opportunity cost at the beginning of the horizon and its five-year escalated value is calculated as revenue from a sale to a private sector investor;
- Escalated market rents will be applicable once the building is sold and a lease is negotiated with the new owner;
- Net rents will be stabilized for a 5-year term and escalate accordingly for consecutive 5 years terms thereafter; and,
- It is not likely a private sector investor would be willing or able to fund the considerable amount of capital upgrades required at the subject property at the expected level of net rent.

Therefore, it is assumed that the Crown will need to fund the capital upgrades which also include the identified major retrofit.

Option 3: Relocate Occupants to Off-site Leased Accommodation

- The asset will be vacated and the property sold out of the Crown inventory;
- It is assumed that the Crown will remain in-situ for five years before a suitable investor/purchaser is found as well as new leased accommodation for the government tenant;
- The market value of the asset is considered to be the imputed purchase value at the beginning of the horizon and its five-year escalated value is calculated as revenue from a sale to a private sector investor;
- It is assumed that the market value is not discounted/reduced to reflect the vacancy left by the move of the government tenant;
- It is not likely that existing vacant space comparable in quality and size to the subject could be found in the market therefore it is assumed that a build to suit lease would result. Build to suit space is expected to be Class 'A' since new buildings are typically constructed to this level. Current market rental rates for similar space in a suburban area is expected to be \$215/m²R (\$20/ft²);
- New buildings are built at a higher space efficiency level than older Class 'B' buildings. The subject has a gross-up off 22% which can easily be reduced to 10% in a modern building. With a current total usable area of....., the new space is expected to have a total rentable area of compared to the current area of.....;
- The new area is expected to be fit-up to as per the recommended amount in the BCR: \$.....
- Net rents will be stabilized for a 5-year term and escalate accordingly for consecutive 5 years terms thereafter;
- The private sector landlord is assumed to perform the necessary capital upgrades to its building to ensure federal government occupancy standards are met;
- Before the investor takes possession of the asset in Year 6, the Crown will perform basic capital upgrades to cure any depreciation at an annual rate ofof the asset's market value; and,
- The office space will be fit-up in Year 6 and refurbished every 10 years with this cost borne by the Crown.

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Appendix III – Code compliance Template

PUBLIC SERVICES AND PROCUREMENT CANADA

CODE COMPLIANCE

NAME OF BUILDING

ADDRESS OF BUILDING

CITY, PROVINCE

PSPC ASSET NUMBER

TB DFRP IDENTIFIER

PREPARED BY:

GROUP NAME

REAL PROPERTY SERVICES

PUBLIC SERVICES AND PROCUREMENT CANADA

DATE:

PROJECT NO:

CODE COMPLIANCE EVALUATION: *BUILDING NAME***TABLE OF CONTENTS**

1.0	INTRODUCTION ...	X
2.0	APPLICABLE CODES	X
2.1	Legislative Requirements	
2.2	Treasury Board Standards	
2.3	Ontario/Quebec building code and Ontario/Quebec Fire Code	
2.4	Referenced Standards	
3.0	BUILDING DESCRIPTION	X
3.1	General Background	
3.2	Location	
3.3	Date of Construction	
3.4	Significant changes of design, use or occupancy	
4.0	APPLICATION OF THE NFC AND NBC TO THE EXISTING BUILDING	X
4.1	Application	
4.2	Building Size, Use and Occupancy	
4.3	Construction Requirements	
4.4	Spatial Separation	
4.5	Fire Department Access	
4.6	Fire Separations and Compartmentation	
4.7	Egress and Exits	
4.8	Fire Protection Systems and Emergency Power	
4.9	Fuel Storage	
4.10	Washroom Requirements	
4.11	Barrier-free Requirements	

BIBLIOGRAPHY

1.0 INTRODUCTION

- **Background:** the code summary review is an integral component of the building condition report. To meet this objective the consultant shall undertake a code summary review of the existing buildings known as (Building name). The purpose of this service requirement is to gather information, access and make event recommendations related to existing code conditions and the latest fire and life safety codes.
- **Scope of Work:** this report shall act to identify and articulate the key fire and life safety requirements stipulated within the applicable codes, and review the parameters of the codes in light of the existing building conditions not undergoing renovation.
- **Methodology:** the contents of the report is to be based on visual analysis, current code requirements, existing conditions, tempered by the knowledge & expertise of certified subject matter experts, comprehensive site visit; coupled with a prudent analysis of the applicable situation and relevant codes.
- **Limitations:** the summary review is limited to the technical performance the key fire and life safety code requirements. Also, available asset information may be limited or not available.

2.0 APPLICABLE CODES

2.1 LEGISLATIVE REQUIREMENTS

(Building name) constitute federally occupied building, therefore the Canada Labour Code (CLC) and the Canada Occupational Health & Safety Regulations (COHS) apply. Although the National Building Code (NBC) is referenced by the COHS Regulations it is to be applied in prudent, practical and reasonable manner with regard to existing buildings that may be non-compliant with the current code. Presently, the COHS Regulations reference the 2010 edition of the (NBC) and the National Fire Code (NFC) this may be subject to future change within the COHS regulations.

2.2 TREASURY BOARD STANDARDS

The Treasury Board (TB) Fire Protection Standard (2010) stipulates that its policy intent is to "...protect and minimize losses to federal real property and protect the lives of those who use these properties from fire-related risk" and expresses that this shall be the responsibility of the Custodian Department that has administrative responsibility for the building. This policy references the NBC, NFC and the intent of applicable local codes that may meet or exceed.

2.3 PROVINCIAL BUILDING CODES AND FIRE CODES

From a federal perspective, these codes are on a voluntary basis; however if practical the intent is to meet or exceed them. For the purpose of this report the NBC and NFC shall prevail as the applicable codes.

2.4 Reference Standards

The NBC and NFC act to collectively reference numerous Standards. These standards are directly linked to functional and technical statements contained within the codes; therefore they shall be integrated and clearly stated within the summary report.

3.0 BUILDING DESCRIPTION

3.1 GENERAL BACKGROUND

3.2 LOCATION

3.3 DATE OF CONSTRUCTION

3.4 SIGNIFICANT CHANGES OF DESIGN, USE OR OCCUPANCY

4.0 APPLICATION OF THE NFC AND NBC TO THE EXISTING BUILDING

4.1 APPLICATION

4.2 BUILDING SIZE, USE AND OCCUPANCY

4.2.1 Building size

4.2.2 Use and occupancy

4.2.3 Occupant load

4.3 CONSTRUCTION REQUIREMENTS

4.4 SPACIAL SEPARATIONS

Exposure conditions at exits

4.5 FIRE DEPARTMENT ACCESS

- Fire department access routes
- Fire department access.

4.6 FIRE SEPARATIONS AND COMPARTMENTATION

- Fire separations
- Fire protection ratings

4.7 EGRESS AND EXITS

- Number of exits and travel distance
- Door swing
- Distance between exits
- Exit capacity
- Exit discharge
- Door hardware
- Egress configuration
- Integrity of exits

4.8 FIRE PROTECTION SYSTEMS AND EMERGENCY POWER

- Fire alarm system
- Sprinkler system
- Standpipe system
- Emergency lighting
- Exit signs

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4.9 FUEL STORAGE

4.10 WASHROOM REQUIREMENTS

4.11 BARRIER-FREE REQUIREMENTS

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Appendix IV - Accessibility Audit Template;

(Departmental Representative will provide up-dated templates and accessibility checklists)

PUBLIC SERVICES AND PROCUREMENT CANADA 2005-2009 ACCESSIBILITY AUDIT PROGRAM

**ACCESSIBILITY AUDIT
NAME OF BUILDING
ADDRESS OF BUILDING
CITY, PROVINCE
PSPC ASSET NUMBER
TB DFRP IDENTIFIER**

**PREPARED BY:
GROUP NAME
REAL PROPERTY SERVICES
PUBLIC SERVICES AND PROCUREMENT CANADA**

DATE: PROJECT NO:

ACCESSIBILITY EVALUATION: *BUILDING NAME*

TABLE OF CONTENTS

1.0	INTRODUCTION ...	X
1.1	Federal Standards	
2.0	FACILITY OVERVIEW.....	X
3.0	WALKWAYS	X
3.1	Existing Conditions	

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3.2 Modifications Required to Comply with CAN CSA B651 95 Barrier-Free Design Standard

3.3 Incremental Modifications Required to Comply with CAN CSA B651 12 Accessible Design for the Built Environment

4.0 PARKING X

4.1 Existing Conditions

4.2 Modifications Required to Comply with CAN CSA B651 95 Barrier-Free Design Standard

4.3 Incremental Modifications Required to Comply with CAN CSA B651 12 Accessible Design for the Built Environment

5.0 BUILDING ENTRANCES X

5.1 Existing Conditions

5.2 Modifications Required to Comply with CAN CSA B651 95 Barrier-Free Design Standard

5.3 Incremental Modifications Required to Comply with CAN CSA B651 12 Accessible Design for the Built Environment

6.0 VERTICAL MOVEMENT X

6.1 Existing Conditions

6.2 Modifications Required to Comply with CAN CSA B651 95 Barrier-Free Design Standard

6.3 Incremental Modifications Required to Comply with CAN CSA B651 12 Accessible Design for the Built Environment

7.0 INTERIOR DOORS AND CORRIDORS (Base Building) X

7.1 Existing Conditions

7.2 Modifications Required to Comply with CAN CSA B651 95 Barrier-Free Design Standard

7.3 Incremental Modifications Required to Comply with CAN CSA B651 12 Accessible Design for the Built Environment

8.0 WASHROOMS X

8.1 Existing Conditions

8.2 Modifications Required to Comply with CAN CSA B651 95 Barrier-Free Design Standard

8.3 Incremental Modifications Required to Comply with CAN CSA B651 12 Accessible Design for the Built Environment

9.0 DRINKING FOUNTAINS X

9.1 Existing Conditions

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9.2	Modifications Required to Comply with CAN CSA B651 95 Barrier-Free Design Standard	
9.3	Incremental Modifications Required to Comply with CAN CSA B651 12 Accessible Design for the Built Environment	
10.0	PUBLIC TELEPHONES/TACTILE SIGNAGE	X
10.1	Existing Conditions	
10.2	Modifications Required to Comply with CAN CSA B651 95 Barrier-Free Design Standard	
10.3	Incremental Modifications Required to Comply with CAN CSA B651 12 Accessible Design for the Built Environment	
11.0	PUBLIC AREAS	X
11.1	Existing Conditions	
11.2	Modifications Required to Comply with CAN CSA B651 95 Barrier-Free Design Standard	
11.3	Incremental Modifications Required to Comply with CAN CSA B651 12 Accessible Design for the Built Environment	
12.0	BUILDING EXEMPTIONS	X
12.1	Recommended Exemptions	
13.0	ACCESSIBILITY COMPLIANCE SCORE.....	X
13.1	Existing Compliance with B651 95	
13.2	Existing Compliance with B651 12	
14.0	CLASS C CONSTRUCTION ESTIMATE	X

BIBLIOGRAPHY

APPENDIX A: Accessibility Standard for Real Property, November 1, 2006
Treasury Board of Canada Secretariat

APPENDIX B: Project Team

1.0 INTRODUCTION

This Accessibility Audit report has been initiated by Public Services and Procurement Canada Asset and Facility Management Services in response to the 2005 'Accessibility for All' report, prepared by the Subcommittee on the Status of Persons with Disabilities for the Standing Committee on Human Resources, Skills Development, Social Development and the Status of Persons with Disabilities.

The Subcommittee on the Status of Persons with Disabilities was mandated to examine various issues related to accessibility for persons with disabilities including the accessibility of buildings and transportation under federal jurisdiction; issues of accessibility related to Parliament Hill, the accessibility of benefits from the Canada Pension Plan, the accessibility of jobs in the federal public service; as well as tax measures for persons with disabilities.

As a result of the Subcommittee's examination of the accessibility of buildings under federal jurisdiction, Recommendation 3 of the 'Accessibility for All' recommended:

The Subcommittee recommends that the Department of Public Services and Procurement Canada establish in 2005 an ongoing audit program of the compliance of federal buildings with technical standard CAN/CSA-B651-04, as formulated by the Canadian Standards Association. A progress report should be tabled in 2007, and all federal buildings must be audited by no later than 2009.

In its formal response to the Subcommittee, PSPC stated:

Public Services and Procurement Canada (PSPC) is developing an auditing strategy, electronic database system, and training tools, to establish a program to audit the accessibility of all its facilities, both owned and leased. The audit program will simultaneously follow twin tracks. Firstly, it will audit for compliance with the Treasury Board Accessibility Policy. Secondly, it will audit for compliance with the Canadian Standards Association's technical standard, CAN/CSA-B651-04 Accessible Design for the Built Environment. The federal government is the only jurisdiction in Canada, so far, to adopt this rigorous standard.

The approach PSPC has chosen for its audit program will help identify gaps between the requirements of Treasury Board policy and the 2004 version of CAN/CSA-B651-04, and provide valuable information for future investments in renovations and acquisitions. A further benefit of the audit will be the opportunity to optimize the department's monitoring and reporting on accessibility within its inventory.

The audit program will comply with, and be guided by, the Treasury Board Accessibility Policy. PSPC will work with Social Development Canada to ensure that the offices of the latter and its Ministers are among the first public spaces to be audited for accessibility. A progress report on the audit program will be tabled by December 2007, for completion by December 2009.

Consequently, the objective of this accessibility audit is to:

Identify any remaining accessibility improvements required in order to bring the base building elements of the facility in compliance with the *Accessibility Requirements* of the Treasury Board *Accessibility Standard for Real Property* and the CAN CSA B651 95 Barrier-Free Design Standard.

Identify the incremental improvements required in order to bring the base building elements of the facility in compliance with the *Accessibility Requirements* of the Treasury Board *Accessibility Standard for Real Property*, and the CAN CSA B651 -12 Accessible Design for the Built Environment Standard.

Identify the Class C construction Costs associated with compliance with each of the above.

Document facilities and areas exempted from the requirements of Treasury Board *Accessibility Standard for Real Property* and the rationale supporting the exemptions.

1.1 Federal Accessibility Standards

The current policy regulating accessibility to federal facilities is identified in the Treasury Board of Canada *Accessibility Standard for Real Property (ASRP)*, which replaced the 1998 *Treasury Board Real Property Accessibility Policy* on November 1, 2006. For reference purposes, a copy of the ASRP has been included as Appendix A of this document.

Section 5 of the ASRP, *Accessibility Requirements*, provides a detailed 'scoping' of accessibility requirements for federal real property, and these requirements have been included under the headings for the various base building and/or site elements audited in this study.

Section 5.2 of the ASRP also specifies the use of the Canadian Standards Association B651 Standard as the technical reference for accessibility, and PSPC's 1990-1995 Accessibility Program resulted in upgrading of its inventory of Crown Owned and Leased inventory to comply with the *CAN/CSA B-651-M90* and *CAN CSA B651 95* editions of the *Barrier-Free Design Standard*. Although amendments between the M90 and 95 editions of the standard were relatively minor, the standard was superseded in 2012 by the *CAN CSA B651 12 Accessible Design for the Built Environment* standard.

In March, 1992, the Accessibility Office, PWC Headquarters issued an [Accessibility Evaluation Guide](#) that identifies various 'Assessment Considerations' for existing installations that vary slightly from the technical requirements identified in CAN CSA B651 and do not compromise effective use by persons with disabilities. These have been noted where applicable. While the [Accessibility Evaluation Guide](#) contains additional Assessment Considerations in addition to those identified in this report, those that have been problematic or open to interpretation have not

been referenced in this document. Note also that these Assessment Considerations are not intended for application in new construction, which should be designed fully in accordance with the requirements of the CAN CSA B651.

2.0 FACILITY OVERVIEW

Facility Name:	Insert
Municipal Address:	Insert
Crown-Owned or Leased:	Insert
PSPC Asset Number:	Insert
PSPC Cost Centre Number(s):	Insert
Total Rentable Area (m2):	Insert
Building Height (Storeys):	Insert
Total Parking:	Insert
Date of Construction and major capital Improvements:	Insert
Client Departments in Facility/Floor Location:	Insert
Service/utility areas not audited:	Insert

3.0 WALKWAYS

Accessibility Requirements of the Treasury Board Accessibility Standard for Real Property:

5.1. In the management of real property, custodians shall at a minimum, provide access to and use of the following:

c) Public areas (including, but not limited to.... walkways);

k) Accessibility shall include routes from accessible parking areas, local public transit stops and all drop-off areas that are within the limits of the federal property to main entrances.

3.1 Existing Conditions

Reference Checklists:

Accessibility Checklist B - Passenger Pick-Up Areas

Accessibility Checklist C - Curb Ramps

Accessibility Checklist D - Accessible Routes

Accessibility Checklist E - Ramps and Platform Lifts

Accessibility Checklist I - Stairs and Stairwells

Overview of Accessibility Elements to Review

As PSPC has limited control over provincial municipal jurisdictions, the following are to be examined within the property limits of the facility being audited:

Walkways:	Width, gradient, thresholds, gratings in circulation routes, curb ramps.
Exterior Stairs:	Tread configuration (rise, run, nosing design), slip-resistance and colour-contrast of nosings, handrails (profile, extensions, returns). While CSA requires detectable warning surfaces, no national standard has been developed and this work should be deferred until there is an established national standard.
Exterior Ramps:	Ramp width, gradient, landings, handrails (profile, extensions, returns, wall clearances, etc), protective edges, etc.

3.2 Modifications Required to Comply with CAN CSA B651 12 Barrier-Free Design Standard

Describe in sufficient detail, including quantities and locations, for cost estimator and to formulate scope of work for implementation. For new interventions to be installed or constructed, detail as per CAN CSA B651 12.

3.3 Incremental Modifications Required to Comply with CAN CSA B651 12 Accessible Design for the Built Environment

Describe in sufficient detail, including quantities and locations, for cost estimator and to formulate scope of work for implementation.

The primary differences between the CSA 95 and 04 Standards are:

Exterior Walkways

Increase of minimum width of exterior walkways to 1500 mm (CSA 95: 1200 mm minimum).

Curb Ramps

Requires curb ramps to have detectable hazard indicators (CSA 95: colour and texture contrasted only)

Stairs/Ramps

Requirement for extension of handrails for the perimeter of stair landings (CSA 95: 300 mm extensions beyond top of stairs, 300 mm extensions plus one tread depth beyond base of stairs).

Change of handrail heights from 860-920 mm (CSA 95: 800-920 mm).

Requirement for ramp handrails to colour contrast with their surroundings (CSA 95: not identified).

Colour contrast of horizontal face of stair nosings to be 50 \pm 10 mm deep (CSA 95: not specified)

Ramps to have colour contrasted strips 50 \pm 10 mm deep at top, base and landings (CSA 95: not specified)

4.0 PARKING

Accessibility Requirements of the Treasury Board Accessibility Standard for Real Property:

5.1. In the management of real property, custodians shall at a minimum, provide access to and use of the following:

j) Where employee or visitor parking is provided, the quantity of accessible parking spaces provided shall conform with municipal by-laws or the following table, whichever has the higher number of accessible spaces:

Total parking spaces	Minimum No. of accessible spaces	Total parking spaces	Minimum No. of accessible spaces
<i>up to 25</i>	<i>1</i>	<i>151-200</i>	<i>6</i>
<i>26-50</i>	<i>2</i>	<i>201-300</i>	<i>7</i>
<i>51-75</i>	<i>3</i>	<i>301-400</i>	<i>8</i>
<i>76-100</i>	<i>4</i>	<i>401-500</i>	<i>9</i>
<i>101-150</i>	<i>5</i>	<i>more than 500</i>	<i>2% of total</i>

Accessible parking spaces shall be within a reasonable and safe proximity of the federal facility but may be distributed among distinct parking areas .

4.1 Existing Conditions

Reference Checklists:

Accessibility Checklist A - Car & Van Parking

Overview of Accessibility Elements to Review

Parking: Quantity (see above), width, access aisles, signage and pavement markings, proximity to accessible entrance(s), headroom clearances

4.2 Modifications Required to Comply with CAN CSA B651 95 Barrier-Free Design Standard

Describe in sufficient detail, including quantities and locations, for cost estimator and to formulate scope of work for implementation. For new interventions to be installed or constructed, detail as per CAN CSA B651 12.

4.3 Incremental Modifications Required to Comply with CAN CSA B651 12 Accessible Design for the Built Environment

Describe in sufficient detail, including quantities and locations, for cost estimator and to formulate scope of work for implementation.

5.0 BUILDING ENTRANCES

Accessibility Requirements of the Treasury Board Accessibility Standard for Real Property:

5.1. In the management of real property, custodians shall at a minimum, provide access to and use of the following:

a. Entrances. Frequently used points of access to the property must be equipped with a power door operator at main entrances to real property. Where entry to or exit from the facility is through a series of doors in a vestibule-like arrangement, at least one complete set of doors allowing access to the vestibule area shall be so equipped.

PSPC Assessment Considerations:

Where fixed building constraints preclude the modification of a ...vestibule (i.e., to provide sufficient manoeuvring space at doors or adequate space between two doors in series), automatic door openers prove to be a relatively low cost solution.

Where vestibules or privacy screens restrict manoeuvring space, doors can sometimes be removed for easy access as long as privacy is not inhibited.

5.1 Existing Conditions

Reference Checklists:

Accessibility Checklist F - Entrances

Accessibility Checklist G - Doors

Accessibility Checklist O - Millwork

Accessibility Checklist P - Secure Areas

Overview of Accessibility Elements to Review

Existing buildings:	Power operators for accessible main entrance and related vestibule doors.
Powered entrance doorways:	Clear width, vestibule depth (doors in series)
Non-powered entrances:	Clear width, vestibule depth, door hardware, door closer forces, clearances on push and pull side of doors, threshold heights.
Base Building Security Desks	Desk height, cane detectability

Note: Identify issues related to exterior stairs and ramps, including those to entrances, under 3.0 Walkways and any interior stairs and ramps under 6.0 Vertical Movement.

5.2 Modifications Required to Comply with CAN CSA B651 95 Barrier-Free Design Standard

Describe in sufficient detail, including quantities and locations, for cost estimator and to formulate scope of work for implementation. For new interventions to be installed or constructed, detail as per CAN CSA B651 12.

5.3 Incremental Modifications Required to Comply with CAN CSA B651 12 Accessible Design for the Built Environment

Describe in sufficient detail, including quantities and locations, for cost estimator and to formulate scope of work for implementation.

The primary differences between the CSA 95 and 04 Standards are:

Doorways

Clear width of doorways to be measured to edge of any panic hardware (CSA 95: measured face of stop to face of door)

Bottom edge of glazing in doorways not to exceed 900 mm (CSA 95: not mandatory).

Power door controls to be minimum 25 x 75 mm in size, between 800-1200 mm in height, located in the path of travel and clear of door swings. (CSA 95: not specified)

Thumb latch door hardware specified as not acceptable (CSA 95: not specified)

Specifies power doors are to remain open for a minimum of 5 seconds (CSA 95: not specified).

Secure Areas

Requirements for Access Systems Card Access, Keypads and Security Gates (CSA 95: not specified).

6.0 VERTICAL MOVEMENT

Accessibility Requirements of the Treasury Board Accessibility Standard for Real Property:

5.1. In the management of real property, custodians shall at a minimum, provide access to and use of the following:

b) passenger elevators;

In addition to the above ASRP requirement, PSPC generally includes platform lifts, ramps and open circulation stairs related to internal routes of travel.

PSPC Assessment Considerations:Elevators

Undersized elevator cabs need not be replaced unless they cannot provide the required 1200 mm depth required for a person in a wheelchair to pull in. If there are two identical control panels, only one need be modified to be accessible.

Additional PSPC Assessment Considerations:Elevators:

As handrails in elevator cabs are utilized for stabilization purposes only, existing handrails are left as is. Since the BFDS requires handrails on all non-access walls, new handrails are installed where they are not yet provided on all non-access walls and any existing handrail(s) are replaced to match.

6.1 Existing Conditions**Reference Checklists**

Accessibility Checklist E - Ramps and Platform Lifts

Accessibility Checklist H - Elevators

Accessibility Checklist I - Stairs and Stairwells

Overview of Accessibility Elements to Review

Note: Auditing of enclosed exit stairs is not required as ASRP does not reference emergency egress or areas of refuge.

Elevators:

Compliance with Appendix C of the BFDS in terms of cab size, height of hall call buttons, control panels, emergency telephones and lanterns, audible and visual signalling, tactile markings on controls, automatic door reopening devices, tactile floor designation signage, handrails on all non-access walls, etc.

Platform Lifts:**Compliance with CAN/CSA B355**

Interior Circulation Stairs (excludes enclosed exit stairwells): Tread configuration (rise, run, nosing detail), slip-resistance and colour-contrast of nosings, handrails (profile, extensions, returns).

Interior Ramps:

Ramp width, gradient, landings and handrails (profile, extensions, returns, wall clearances, etc) protective edges, etc.

Note: Identify issues related to any exterior stairs and ramps, including those to entrances under 3.0 Walkways.

6.2 Modifications Required to Comply with CAN CSA B651 95 Barrier-Free Design Standard

Describe in sufficient detail, including quantities and locations, for cost estimator and to formulate scope of work for implementation. For new interventions to be installed or constructed, detail as per CAN CSA B651 12.

6.3 Incremental Modifications Required to Comply with CAN CSA B651 12 Accessible Design for the Built Environment

Describe in sufficient detail, including quantities and locations, for cost estimator and to formulate scope of work for implementation.

The primary differences between the CSA 95 and 04 Standards are:

Interior Circulation Stairs/Ramps

Requirement for extension of handrails for the perimeter of stair landings (CSA 95: 300 mm extensions beyond top of stairs, 300 mm extensions plus one tread depth beyond base of stairs).

Change of handrail heights from 860-920 mm (CSA 95: 800-920 mm).

Requirement for ramp handrails to colour contrast with their surroundings (CSA 95: not identified).

Colour contrast of horizontal face of stair nosings to be 50 \pm 10 mm deep (CSA 95: not specified)

Ramps to have colour contrasted strips 50 \pm 10 mm deep at top, base and landings (CSA 95: not specified)

Elevators

Auditor Note: As the new elevator requirements require controls to be between 890-1220 mm for elevators serving less than 16 openings, consider that this would likely require full replacement of control panels anyway.

Minimum door/ cab size dimension (CSA 95: 910 mm door: 1725 mm wide, 1295 mm deep with 1370 mm mm deep to face of door)

Centred 1065* mm door: 2030 mm wide, 1295 mm deep with 1370 mm deep to face of door.

Side (off centered) 915* mm door: 1725 mm wide, 1295 mm deep with 1370 mm deep to face of door.

Any 915* mm door: 1370 mm wide, 2030 mm deep with 2030 mm deep to face of door.

Any 915* mm door: 1525 mm wide, 1525 mm deep with 1525 mm deep to face of door.

* permits -16 mm tolerance

Auditor Note: For undersized elevator cabs, consider:

-wheelchair footprint (CSA: 750 mm x 1200 mm)

-supplementary features (mirrors on backwalls to assist access /egress)

-alternative regulatory requirements such as the 890 mm width and 1370 mm depth acceptable for Limited Use/Limited Access (LULA) elevators.

Door reopening devices

Permits contact to be made before door reopening device is activated (CSA 95: no contact permitted).

Door timing for hall or car call

For hall calls, a minimum of 5 seconds is required between the time the door starts to open to the time it starts to close (CSA 95: 4 seconds).

Hall Call buttons

Extends height range for hall call buttons to 890-1220 mm (CSA 95:1070 mm \pm 25 mm)

Buttons or surrounding collar required to be raised a minimum of 1.5 mm (CSA 95: raised, flush or recessed)

'Up' hall call button to be above 'Down' button (CSA 95: not specified)

Clear floorspace of 760 mm by 1220 mm required at call buttons (CSA 95: not specified)

Objects below hall call buttons not to protrude more than 25 mm (CSA 95: not specified)

Hall buttons to be a minimum of 19 mm in smallest direction (CSA 95: 20 mm).

Car Controls

Clear floorspace of 760 mm by 1220 mm required at car controls (CSA 95: not specified)

Height of car controls to be between 890-1220 mm where elevator serves less than 16 openings (CSA 95: 890-1370 mm). Elevators serving more than 16 openings remain at 890-1370 mm.

Buttons or surrounding collar required to be raised a minimum of 1.5 mm (CSA 95: raised flush or recessed).

Buttons are to be arranged in either standard telephone style keypad or with numbers in ascending order. When 2 or more columns of buttons are provided, they are to read left to right (CSA 95: not specified).

Buttons to be identified by tactile characters and Braille only except where arranged in a standard telephone keypad arrangement (CSA 95: tactile characters only).

Raised star provided immediately left of the button for the main entry level (CSA 95: not required)

Car Position Indicators

Requires both audible and visible car floor location indicators (CSA 95: visible only)

Audible signals to sound once for the 'Up' direction or twice for the 'Down' direction or alternatively be verbal stating the word 'Up' or 'Down' (CSA 95: optional to include audible signal only as car passes or stops at a floor)

Audible signal or verbal annunciator to be 10 db above ambient to a maximum of 80 db (CSA 95: audible signal of minimum of 20 db)

Hall or in-car signals

Requires visible and audible signaling at each hoistway to indicate which car is answering a call and the direction of travel (CSA 95: car answering call only). In car signals that are visible from the floor area adjacent to the call buttons.

Audible signals to sound once for the 'Up' direction or twice for the 'Down' direction or alternatively be verbal stating the word 'Up' or 'Down' (CSA 95: optional to include audible signal only as car passes or stops at a floor)

Audible signal or verbal annunciator to be 10 db above ambient to a maximum of 80 db (CSA 95: audible signal of minimum of 20 db)

Floor Designation Signage

Floor designations to consist of raised characters and braille designations (CSA 95: braille not required)

Raised designations a minimum of 0.8 mm high (CSA 95: 0.75 mm high)

Mounting height is 1525 mm to the baseline of the character (CSA 95: centered at 1500 mm \pm 25 mm)

Raised star provided immediately left of the floor designation at the main entry level (CSA 95: not required)

Emergency Communications

If emergency communications device is in a closed compartment, the door hardware is to be operable with one hand, not require tight grasping pinching or twisting of the wrist and not require greater than 22 N to activate operable parts (CSA 95: not specified).

Requires emergency signaling devices not only to be limited to voice communication. If instructions for use are provided, essential information is to be provided in both tactile and visual form.

LULA (Limited Use Limited Access) Elevators

New allowance for LULA elevators

Cab size minimum of 1060 mm width by 1370 mm depth with clear width door opening of 815 mm.

7.0 INTERIOR DOORS AND CORRIDORS (Base Building)

Accessibility Requirements of the Treasury Board *Accessibility Standard for Real Property*:

5.1. In the management of real property, custodians shall at a minimum, provide access to and use of the following:

e) interior doors and corridors;

7.1 Existing Conditions

Reference Checklists:

Accessibility Checklist D – Accessible Routes

Accessibility Checklist G - Doors

Overview of Accessibility Elements to Review

Doorways: Clear width, door hardware, door closer forces, clearances on push and pull side of doors, height of transparent glazing in doorways etc.

Corridors: Width, slip resistance, carpeting, level changes between adjoining floor materials, protruding objects that are cane detectable, headroom clearances, floor grates, etc.

Operating Mechanisms²: Height of light switches, electrical outlets, buzzers, access telephones, card access devices.

Note: Identify issues related to any interior stairs and ramps under 6.0, Vertical Movement.

7.2 Modifications Required to Comply with CAN CSA B651 95 Barrier-Free Design Standard

Describe in sufficient detail, including quantities and locations, for cost estimator and to formulate scope of work for implementation. For new interventions to be installed or constructed, detail as per CAN CSA B651 12.

7.3 Incremental Modifications Required to Comply with CAN CSA B651 12 Accessible Design for the Built Environment

Describe in sufficient detail, including quantities and locations, for cost estimator and to formulate scope of work for implementation.

The primary differences between the CSA 95 and 04 Standards are:

Doorways

Clear width of doorways to be measured to edge of any panic hardware (CSA 95: measured face of stop to face of door)

Bottom edge of glazing in doorways not to exceed 900 mm (CSA 95: not mandatory).

Power door controls to be minimum 25 x 75 mm in size, between 800-1200 mm in height, located in the path of travel and clear of door swings.

Thumb latch door hardware specified as not acceptable (CSA 95: not specified)

Specifies power doors are to remain open for a minimum of 5 seconds (CSA 95: not specified).

Corridors

Headroom clearance increased to 2030 mm minimum (CSA: 1980 mm minimum)

8.0 WASHROOMS

Accessibility Requirements of the Treasury Board Accessibility Standard for Real Property:

5.1. In the management of real property, custodians shall at a minimum, provide access to and use of the following:

f) Washrooms

PSPC Assessment Considerations:

*One accessible male washroom and female washroom, or alternatively one accessible individual washroom, is required on each floor in existing buildings based on the ASRP 5.2 ' **Note:** This technical standard ...does not apply retroactively to accessibility requirements of real property in the inventory prior to October 1, 2004'.*

Only one lavatory per washroom has to be accessible.

Where fixed building constraints preclude the modification of a washroom vestibule (i.e., to provide sufficient manoeuvring space at doors or adequate space between two doors in series), automatic door openers prove to be a relatively low cost solution.

Where vestibules or privacy screens restrict manoeuvring space, doors can sometimes be removed for easy access as long as privacy is not inhibited.

If the toilet was installed with its centerline located at 430 mm from the wall carrying the grab bar...it need not be moved.

Flush controls that are not on the transfer side of the toilet need not be relocated.

Where existing urinals do not meet the CAN/CSA B651 requirements, they do not have to be replaced if toilet fixtures are available in accessible stalls.

8.1 Existing Conditions

Reference Checklists:

Accessibility Checklist G - Doors

Accessibility Checklist J - Washrooms

Accessibility Checklist K - Individual Washrooms/showers

Overview of Accessibility Elements to Review

Main Core Washrooms:

Entrance Doorway:	Clear width, door hardware*, door closer forces*, clearances on push and pull side of doors*, etc.
Sink:	Height, knee space/circulation clearances, faucet controls, mirror, soap/wastepaper dispensers heights, etc.
Stall:	Stall size, stall door (see above), locking devices, coat hook, etc.
Toilet:	Seat height, centerline distance, backrest, grab bars, paper dispensers, etc.
Urinal:	Circulation clearances, well openings, grab bars, etc. Asa urinals were not in the 1995 standard, urinal upgrading would be for compliance with 2004 Standard only.

*Power operation of a washroom entrance door will generally compensate for the non compliance of these items.

Individual Washroom:

Room size, circulation clearance between sink/toilet, shelf, light switch/outlet height(s), etc. See also Entrance Doorway, Sink and Toilet headings above.

Showers:

Circulation clearances, stall size, thresholds, grab bars, controls, head, etc.

While RPA does not identify a specific a requirement for access to showers, showers not provided for operational purposes can be considered a staff amenity and should be accessible.

Note:

Where structural, architectural and/or fixture count limitations prohibit modification of existing main core washrooms, the installation of a separate accessible individual washroom is generally a more cost-effective solution.

8.2 Modifications Required to Comply with CAN CSA B651 95 Barrier-Free Design Standard

Describe in sufficient detail, including quantities and locations, for cost estimator and to formulate scope of work for implementation. For new interventions to be installed or constructed, detail as per CAN CSA B651 12.

8.3 Incremental Modifications Required to Comply with CAN CSA B651 12 Accessible Design for the Built Environment

Describe in sufficient detail, including quantities and locations, for cost estimator and to formulate scope of work for implementation.

The primary differences between the CSA 95 and 04 Standards are:

Increase in size of toilet stalls to 1600 mm wide by 1500 mm deep (CSA 95: 1500 mm by 1500 mm).

Requirement for a clear floor area of 1500 mm by 1500 mm outside of the doors for accessible stalls (CSA 95: 1200 mm by 1200 mm).

Auditor Note: If the two points above cannot be achieved in an existing washroom, an accessible individual washroom will be required in an alternate location.

Description of requirements for accessible urinals (CSA 95: urinals not included). Although only one urinal is required to be accessible to persons using wheelchairs, all urinals in washrooms would require raised vertical markers. **Auditor Note: For floors with multiple washrooms, locate the accessible urinal in the male washroom which also contain the accessible toilet stall. If the required solution is an accessible individual washroom, exclude the requirement for a urinal.**

Lowering of maximum height of coat hooks in accessible stalls to 1200 mm (CSA 95: 1400 mm maximum)

Requirement for D-pulls outside of doors to be horizontally mounted (CSA 95: vertical)

Soap dispensers to be no more than 1100 mm high (CSA 95: 1200 mm) and within 500 mm reach from the lavatory (CSA 95: not specified).

Clarification of knee space clearance under sinks at end walls to be centred on sink (eg. 920 mm width required where at end wall)

Clarification that tilt mirrors are not recommended (CSA 95: not specified)

Addition of 1000 mm long horizontal grab bar at entrance to roll-in showers (CSA 95: not required) and increase in length of the same bar at entrances to showers with a fold-down seat (CSA 95: 750 mm long). Increase in length of the grab bar on the rear wall of roll in showers to 1000 mm (CSA 95: 900 mm minimum).

9.0 DRINKING FOUNTAINS

Accessibility Requirements of the Treasury Board *Accessibility Standard for Real Property*:

5.1. In the management of real property, custodians shall at a minimum, provide access to and use of the following:

h) Drinking fountains. One accessible cooler or fountain shall be provided in each location where water coolers or drinking fountains are provided;

PSPC Assessment Considerations:

PSPC Standards for Leased Accommodation only require one accessible fountain per floor.

9.1 Existing Conditions

Overview of Accessibility Elements to Review

Water Coolers:

Dispenser height, operating mechanisms, cup dispensers and circulation clearances.

Drinking Fountains:

Spout height, operating mechanisms, circulation/ kneespace clearances and cane detectability.

9.2 Modifications Required to Comply with CAN CSA B651 95 Barrier-Free Design Standard

Describe in sufficient detail, including quantities and locations, for cost estimator and to formulate scope of work for implementation. For new interventions to be installed or constructed, detail as per CAN CSA B651 12.

9.3 Incremental Modifications Required to Comply with CAN CSA B651 12 Accessible Design for the Built Environment

Describe in sufficient detail, including quantities and locations, for cost estimator and to formulate scope of work for implementation.

The primary differences between the CSA 95 and 04 Standards are:

Requires drinking fountains to colour contrast with their background
 Requires fountains to be cane, detectable recessed or otherwise located outside of circulation routes
 Requires user to be able to control the timing and water delivery height (eg. not electronically controlled).

10.0 PUBLIC TELEPHONES/TACTILE SIGNAGE

Accessibility Requirements of the Treasury Board Accessibility Standard for Real Property:

5.1. In the management of real property, custodians shall at a minimum, provide access to and use of the following:

g) public telephones. When banks of public telephones are provided, there must be at least one public telephone per bank accessible to persons in wheelchairs and one public telephone per bank accessible to persons with hearing impairments. All direct-line telephones and at least one charge-a-call telephone, when provided, shall be similarly accessible

Tactile signage. Tactile signs shall be provided for the following: washrooms, emergency exits, elevators, and stairwells.

PSPC Assessment Considerations

Public telephones located in the entrance lobbies of PSPC leased facilities are generally not modified as they do not constitute part of the leased premises.

10.1 Existing Conditions

Reference Checklists

Accessibility Checklist M - Tactile Signage

Accessibility Checklist N - Public Telephones

Overview of Accessibility Elements to Review

Tactile Signage:

Federal Identity Program (FIP) tactile signage installed for doors to all washrooms (accessible and non-accessible), stairwells and exits directly to the exterior. Tactile signage for elevators is generally installed to elevator manufacturers standards and is not included as part of the FIP tactile signage system.

Tactile signs are located on the latch side of doors (not on the doors) at a centreline height of 1500 mm.

Public/Direct Line Telephones

Height, directory/TDD shelves, flux coil volume control devices for handsets, circulation clearances, accessibility of location.

10.2 Modifications Required to Comply with CAN CSA B651 95 Barrier-Free Design Standard

Describe in sufficient detail, including quantities and locations, for cost estimator and to formulate scope of work for implementation. For new interventions to be installed or constructed, detail as per CAN CSA B651 12.

10.3 Incremental Modifications Required to Comply with CAN CSA B651 12 Accessible Design for the Built Environment

Describe in sufficient detail, including quantities and locations, for cost estimator and to formulate scope of work for implementation.

The primary differences between the CSA 95 and 04 Standards are:

Lowering of public telephones for use by persons in wheelchairs to 1200 mm (CSA 95:1370 mm).

11.0 PUBLIC AREAS

Accessibility Requirements of the Treasury Board Accessibility Standard for Real Property:

5.1. In the management of real property, custodians shall at a minimum, provide access to and use of the following:

c) Public areas (including, but not limited to, cafeterias, lounges, recreation areas, eating areas, patios, libraries, and walkways);

l) Accessible seating spaces shall be provided within auditoriums, theatres, and other general assembly areas in conformance with the quantities identified in the National Building Code of Canada.

m) Classrooms, auditoriums, meeting rooms and theatres with an area of more than 100 square metres shall be equipped with an assistive listening system encompassing the entire seating area.

11.1 Existing Conditions

If this section is not applicable (eg. There are no base building exterior amenity areas, cafeterias, eating or assembly areas etc. related to the facility), state so but do not delete.

Reference Checklists:

Accessibility Checklist D - Doors

Accessibility Checklist G- Accessible Routes

Accessibility Checklist O - Millwork

Overview of Accessibility Elements to Review

Exterior Amenity Areas (eg. recreation areas, patios, terraces, etc. within the limits of the federal property)

Site Furnishings: Placement in relation to accessible routes.
Benches: Seat height backs, armrests.
Picnic Tables: Height, knee space clearances

Cafeterias:

Entrance Doorway: Clear width, door hardware¹, door closer forces¹, clearances on push and pull side of doors¹, etc.

Circulation: Width of checkout lanes, corridors to seating areas,
Height of/reach to server shelves, self-serve cabinets/ coolers and vending machines².

Assembly Areas

Entrance Doorway: Clear width, door hardware¹, door closer forces¹, clearances on push and pull side of doors¹, etc.

Accessible Seating Quantity (see above), size, access aisles.

Access to Stages

Assistive listening systems for base building, auditoriums, conference rooms, theatres, etc. over 100 square meters. A portable system is a cost effective alternative to hard wiring a new system.

- 1 Power operation of entrance doors will generally compensate for the non-compliance of these items.
- 2 Height/reach issues can often be addressed by ensuring the same selection of food beverages are provided at accessible lower level shelves.

11.2 Modifications Required to Comply with CAN CSA B651 95 Barrier-Free Design Standard

Describe in sufficient detail, including quantities and locations, for cost estimator and to formulate scope of work for implementation. For new interventions to be installed or constructed, detail as per CAN CSA B651 12.

11.3 Incremental Modifications Required to Comply with CAN CSA B651 12 Accessible Design for the Built Environment

Describe in sufficient detail, including quantities and locations, for cost estimator and to formulate scope of work for implementation.

The primary differences between the CSA 95 and 04 Standards are:

Requirement for line up guides in cafeterias to

- have clear floor area of 1500 mm by 1500 mm at start, end and changes in direction.
- be stable and not move easily
- be cane detectable at or below 680 mm
- colour contrast with surroundings

Changes height range for accessible tables to 730-860 mm (CSA 95: 810-860 mm)

12.0 BUILDING EXEMPTIONS

With regards to exempting all or parts of facilities from accessibility requirements, the Accessibility Standard for Real Property includes the following reference:

Exemptions and Minor Variations

5.5. Certain elements of real property may be exempted from the full accessibility requirements unless the intended use requires public access or the job requirements are such that a person with a disability could meet these requirements. Custodians shall establish internal procedures for identifying and seeking the deputy head's approval of full or partial exemptions from the accessibility requirements of this standard. They shall document the rationale for these exemptions and maintain records of all real property that is partially or fully exempted in accordance with this standard.

5.6. If the criteria that justified the exemption change, the custodian shall reassess the real property against this standard to ensure that the exemption is still justified.

5.7. Custodians may allow minor variations from the accessibility requirements of this standard (including the technical standard). However, such variations shall be consistent with the general intent of this standard and shall not affect the general accessibility of a specific property.

5.8. Where the accessibility requirements of this standard will significantly reduce the heritage quality of the property, some deviation from this standard is permitted. In deviating from the standard, custodians shall ensure that the following requirements are met:

- a. access shall be provided to at least one main level of the building;*
- b. there shall be full access to government services and employment opportunities;*
- c. where washroom facilities are provided in an inaccessible location, equivalent facilities that are accessible shall also be provided; and*
- d. for inaccessible exhibitions, another version of the exhibition, such as a video display, shall be provided in an accessible area.*

In response to 5.2 above, PSPC has adopted the exemption criteria identified in the 1998 Real Property Accessibility policy (eg. which preceded the current Accessibility Standard for Real Property) for the purposes of formalizing exemptions under the 2005-2009 Audit Program.

Various new buildings or structures, due to their specialized design function or requirements, may be candidates for a reduced level of accessibility or can be completely exempted from barrier-free design requirements. Such facilities include, but are not limited to, the following:

1. Naturally inaccessible facilities in remote locations

This would include, for example, mountain top installations not accessible by vehicles, facilities on islands not served by accessible ferry systems, below-grade excavations not serviced by elevators, etc.

2. Unattended monitoring stations

This would include facilities which are not occupied on a full time-basis such as:
-facilities housing monitoring/test/experimental equipment or instrumentation which are monitored on an intermittent basis.
-lookout/observation towers.

3. *Facilities designed and constructed to accommodate able-bodied personnel (i.e. where being able-bodied is a specific part of the job requirement)*

This would include such facilities as guardhouses, service garages, utility buildings, warehouses, processing plants etc. Offices and support functions provided for the sole use of the able-bodied staff located in these facilities can also be exempted.

4. *Facilities where operational requirements preclude reasonable access by persons with disabilities*

This could include facilities where immediate evacuation is required in the event of an accident. See also **Hazardous Occupancies** and **Facilities designed and constructed to accommodate able-bodied personnel**.

5. *Hazardous Occupancies*

In some cases, access need not be provided to certain parts of a facility such as boiler rooms, roofs, elevator pits, elevator penthouses, mechanical rooms, electrical vaults, piping or equipment catwalks, or areas of hazardous occupancy (as defined by the National Building Code of Canada and the National Fire Code of Canada), unless the intended use requires public access or the job requirements are such that a person with a disability could meet these requirements.

Based on the definitions of the National Building Code of Canada, this would include the following:

-high hazard industrial occupancy means an industrial occupancy containing sufficient quantities of highly combustible and flammable or explosive materials which, because of their inherent characteristics, constitute a special fire hazard.

-medium hazard industrial occupancy means an industrial occupancy containing in which the combustible content is more than 50 kg/m² or 1200 MJ/m² of floor area and not classified as high hazard industrial occupancy).

6. *No barrier free access is required to the second storey of a two-storey building if the second storey is less than 600 m² rentable and there is full access to government services and employment opportunities on the ground floor. The same provisions apply to single-storey buildings where the basement is used as an operational second floor.*

This would include facilities where, for example, government services, offices and employee amenities (meeting rooms, kitchenettes, photocopy and business machine areas, etc.) are already located on an accessible Ground Floor and the second storey and/or basement level is less than 600 m² rentable and consists of private offices only. Where a person in a wheelchair is located on an accessible ground floor, staff that supervises or is supervised by, this person should be co-located on the same floor.

7. *Facilities to be permanently vacated or removed from federal inventory within one year*

This would include facilities which, for example, are to be vacated, disposed of, demolished, decommissioned or otherwise within the course of the 2005 to 2009 audit program. While

RPA identifies a one year term, take into consideration planning, design and implementation time frames.

12.1 Recommended Exemptions

The following parts of the facility are identified for exemptions under the Accessibility Standard for Real Property and were therefore not examined in this accessibility audit:

List areas of the facility not audited, adding/deleting as required.

Janitors closets, mechanical, electrical and telecommunications rooms, janitors closets, loading docks, long-term 'dead' storage areas at Basement level, etc.

*For facility exemptions under headings 5.4 and .1 to .6 above, insert description and submit to PSPC Portfolio Management for formal exemption through the PSPC **Best Practice on Accessibility: Exemption Criteria and Approval Process.***

Example:

This audit did not include review of the 3rd and 4thth Floor of the General Records Centre as these floors consist of long-term document storage only (eg. on 3 meter high pallet system) only and all offices and amenities for staff responsible for working on these floors are located on the Ground and 2nd Floor.

This recommendation is based on the considerations for *Facilities designed and constructed to accommodate able-bodied personnel (i.e where being able-bodied is a specific part of the job requirement)* and *Facilities where operational requirements preclude reasonable access by persons with disabilities*

13.0 ACCESSIBILITY COMPLIANCE SCORE

13.1 Existing Compliance with B651 95 (Simply fill in the score and the calculation is automatic)

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A	B	C	D	
Accessible Element	Weighting (%)	Scoring * (4, 3.5, 3, 2.5, 2, 1.5, 1.0)	Weighted Score (B X C)	Full Compliance Ranking Score (for info only)
Walkways	5		0	20
Parking Spaces	5		0	20
Entrances to Property	20		0	80
Passenger Elevators-Platform Lifts	20		0	80
Interior Doors and Corridors (Base Building)	10		0	40
Washrooms	20		0	80
Water Coolers - Drinking Fountains	5		0	20
Public Telephones	5		0	20
Tactile Signage	5		0	20
Public Areas	5		0	20
Total	100%	0.0	0	400
% Compliance of Asset			0%	

$$\% \text{ Compliance of Asset} = \frac{\text{Total D}}{400}$$

Scoring *

- 4 = Full compliance: Fully meets Treasury Board Accessibility Standard for Real Property (ASRP) and CAN/CSA B651 technical requirements or PSPC acceptable technical variances.
- 3.5 = Excellent: Requires minor adjustment of existing elements to comply with ASRP and CAN/CSA technical requirements (signs/ accessories/grab bar relocations, maintenance items, painting, etc.).
- 3 = Very Good: Requires replacement of existing elements to comply with ASRP and CAN/CSA technical requirements (signs/ accessory installations, new controls for existing door operators, new grab bars, etc.).
- 2.5 = Good: Requires installation of new element to comply with ASRP and CAN/CSA technical requirements (installation of power door operators, grab bars, elevator control panels, etc.).
- 2 = Moderate: Requires minor architectural/structural or mechanical interventions to comply with ASRP and CAN/CSA technical requirements (modification of ramps, reconfiguration of accessible stalls, replacement of elevator panels, lowering of drinking fountains, etc.).
- 1.5 = Poor: Requires major architectural/structural or mechanical interventions to comply with ASRP and CAN/CSA technical requirements (extension of ramps, reconfiguration of washrooms, replacement of elevator cabs, replacement of drinking fountains, etc.).
- 1 = Very Poor: Requires construction of new accessibility elements to meet ASRP or CAN/CSA technical requirements (construction or installation of new ramps, washrooms, lifts/elevators, drinking fountains, etc.).

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0 = ASRP Accessibility elements cannot be accommodated due to architectural, structural or other limitations.

If a particular accessible element is not applicable to a specific building (for example, single storey building with no elevators, no public telephones, etc.), assign a full score for that specific element. This approach is to avoid the need to redistribute the scoring to the other accessible elements.

13.2 Existing Compliance with B651 12 (Simply fill in the score and the calculation is automatic)

A	B	C	D	
Accessible Element	Weighting (%)	Scoring * (4, 3.5, 3, 2.5, 2, 1.5, 1.0)	Weighted Score (B X C)	Full Compliance Ranking Score (for info only)
Walkways	5		0	20
Parking Spaces	5		0	20
Entrances to Property	20		0	80
Passenger Elevators-Platform Lifts	20		0	80
Interior Doors and Corridors (Base Building)	10		0	40
Washrooms	20		0	80
Water Coolers - Drinking Fountains	5		0	20
Public Telephones	5		0	20
Tactile Signage	5		0	20
Public Areas	5		0	20
Total	100%	0.0	0	400
% Compliance of Asset			0%	

$$\% \text{ Compliance of Asset} = \frac{\text{Total D}}{400}$$

Scoring *

- 4 = Full compliance: Fully meets Treasury Board Accessibility Standard for Real Property (ASRP) and CAN/CSA B651 technical requirements or PSPC acceptable technical variances.
- 3.5 = Excellent: Requires minor adjustment of existing elements to comply with ASRP and CAN/CSA technical requirements (signs/ accessories/grab bar relocations, maintenance items, painting, etc.).
- 3 = Very Good: Requires replacement of existing elements to comply with ASRP and CAN/CSA technical requirements (signs/ accessory installations, new controls for existing door operators, new grab bars, etc.).

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- 2.5 = Good: Requires installation of new element to comply with ASRP and CAN/CSA technical requirements (installation of power door operators, grab bars, elevator control panels, etc.).
- 2 = Moderate: Requires minor architectural/structural or mechanical interventions to comply with ASRP and CAN/CSA technical requirements (modification of ramps, reconfiguration of accessible stalls, replacement of elevator panels, lowering of drinking fountains, etc.).
- 1.5 = Poor: Requires major architectural/structural or mechanical interventions to comply with ASRP and CAN/CSA technical requirements (extension of ramps, reconfiguration of washrooms, replacement of elevator cabs, replacement of drinking fountains, etc.).
- 1 = Very Poor: Requires construction of new accessibility elements to meet ASRP or CAN/CSA technical requirements (construction or installation of new ramps, washrooms, lifts/elevators, drinking fountains, etc.).
- 0 = ASRP Accessibility elements cannot be accommodated due to architectural, structural or other limitations.

If a particular accessible element is not applicable to a specific building (for example, single storey building with no elevators, no public telephones, etc.), assign a full score for that specific element. This approach is to avoid the need to redistribute the scoring to the other accessible elements.

14.0 CLASS C CONSTRUCTION ESTIMATE

Accessibility Standard for Real Property Requirements	% of Adjustment	CAN CSA B651-95	CAN CSA B651-04	CAN CSA B651-12
3.0 Walkways		0.00	0.00	0.00
4.0 Parking		0.00	0.00	0.00
5.0 Building Entrances		0.00	0.00	0.00
6.0 Vertical Movement Elevators Circulation Stairs Ramps		0.00	0.00	0.00
7.0 Interior Doors and Corridors		0.00	0.00	0.00
8.0 Washrooms		0.00	0.00	0.00
9.0 Water Coolers/Drinking Fountains		0.00	0.00	0.00
10.0 Public Telephones/Tactile Signage		0.00	0.00	0.00
11.0 Public Areas		0.00	0.00	0.00
Subtotal				
Regional Adjustment Factor	%	0.00	0.00	0.00
General Contractor's Overhead and Profit	%	0.00	0.00	0.00
Est/Design Allowance	%	0.00	0.00	0.00

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Estimated Construction Cost		\$0	\$0	\$0
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Notes:

1) *Excludes GST*

2) *Excludes Fees*

3) *Excludes Project/Construction Contingencies*

BIBLIOGRAPHY

Accessibility for All, Report of the Standing Committee on Human Resources, Skills Development, Social Development and the Status of Persons with Disabilities, June, 2005.

Accessibility Standard for Real Property, Treasury Board of Canada Secretariat, November 1, 2006

Real Property Accessibility, Treasury Board of Canada Secretariat, June 30, 1998.

CAN/CSA B651 95 Barrier-Free Design, Canadian Standards Association, September 1995.

CAN/CSA B651 12 Accessible Design for the Built Environment, Canadian Standards Association, 2012.

Accessibility Evaluation Guide, Accessibility Office, Public Works Canada, January, 1994.

Canada Labour Code, Part II: Canada Occupational Safety and Health Regulations, December 23, 1998.

APPENDIX A: Accessibility Standard for Real Property (November 1, 2006)

ACCESSIBILITY STANDARD FOR REAL PROPERTY

Table of Contents

1. Effective date
2. Application

-
3. Context
 4. Purpose
 5. Accessibility requirements
 6. References
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Accessibility Standard for Real Property

1. Effective date

This standard is effective November 1, 2006.

2. Application

This standard applies to all departments within the meaning of section 2 of the *Financial Administration Act*, unless specific acts or regulations override it.

3. Context

The *Canadian Human Rights Act* (CHRA) gives effect to the principle that all individuals should have equal opportunity to have their needs accommodated, consistent with their duties and obligations and to function as members of society, without being hindered in, or prevented from, doing so by discriminatory practices.

The *CHRA* prohibits discrimination in the provision of goods, services, facilities or accommodation customarily available to the general public and prohibits the adverse differentiation between individuals.

4. Purpose

The Treasury Board *Policy on the Management of Real Property* holds Deputy Heads responsible for providing barrier-free access to, use of and exit from real property in accordance with this standard. This standard establishes minimum requirements for the accessibility of real property to meet the objectives of the policy.

This standard is issued pursuant to the Financial Administration Act, subsections 7 (1), 9(1.1), 9(2) and the Federal Real Property and Federal Immovables Act, subsection 16(4).

5. Accessibility requirements

5.1. In the management of real property, custodians shall at a minimum, provide access to and use of the following:

- a. Entrances. Frequently used points of access to the property must be equipped with a power door operator at main entrances to real property. Where entry to or exit from the facility is through a series of doors in a vestibule-like arrangement, at least one complete set of doors allowing access to the vestibule area shall be so equipped.
- b. Passenger elevators.

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c. Public areas (including, but not limited to, cafeterias, lounges, recreation areas, eating areas, patios, libraries, and walkways).

d. Federal work areas (including, but not limited to, offices, on-floor storage areas, meeting and training rooms, computer rooms and spaces for business machines).

e. Interior doors and corridors.

f. Washrooms.

g. Public telephones. When banks of public telephones are provided, there must be at least one public telephone per bank accessible to persons in wheelchairs and one public telephone per bank accessible to persons with hearing impairments. All direct-line telephones and at least one charge-a-call telephone, when provided, shall be similarly accessible.

h. Drinking fountains. One accessible cooler or fountain shall be provided in each location where water coolers or drinking fountains are provided.

i. Tactile signage. Tactile signs shall be provided for the following: washrooms, emergency exits, elevators and stairwells.

j. Where employee or visitor parking is provided, the quantity of accessible parking spaces provided shall conform with municipal by-laws or the following table, whichever has the higher number of accessible spaces:

<i>Total Parking Spaces</i>	<i>Minimum No. of Accessible Spaces</i>	<i>Total Parking Spaces</i>	<i>Minimum No. of Accessible Spaces</i>
<i>up to 25</i>	<i>1</i>	<i>151–200</i>	<i>6</i>
<i>26–50</i>	<i>2</i>	<i>201–300</i>	<i>7</i>
<i>51–75</i>	<i>3</i>	<i>301–400</i>	<i>8</i>
<i>76–100</i>	<i>4</i>	<i>401–500</i>	<i>9</i>
<i>101–150</i>	<i>5</i>	<i>more than 500</i>	<i>2% of total</i>

Accessible parking spaces shall be within a reasonable and safe proximity of the federal facility but may be distributed among distinct parking areas.

k. Accessibility shall include routes from accessible parking areas, local public transit stops and all drop-off areas that are within the limits of the federal property to main entrances.

l. Accessible seating spaces shall be provided within auditoriums, theatres and other general assembly areas in the quantities identified in the *National Building Code of Canada*.

m. Classrooms, auditoriums, meeting rooms and theatres of more than 100 square metres shall be equipped with an assistive listening system encompassing the entire seating area.

5.2. In meeting accessibility requirements for real property, departments shall apply the technical standard found in the publication entitled "Accessible Design For the Built Environment" (CAN/CSA-B651-04).

Note: This technical standard has applied to the accessibility requirements of real property acquired (including lease renewal), under construction or undergoing major refit since October 1, 2004. It does not apply retroactively to accessibility requirements of real property in the inventory prior to October 1, 2004.

5.3. For Crown-leased real property outside Canada, custodians shall make best efforts to meet the standard.

5.4. Departments shall adapt residential units to the technical standard when employees or their immediate dependants require accessibility.

Exemptions and minor variations

5.5. Certain elements of real property may be exempted from the full accessibility requirements unless the intended use requires public access or the job requirements are such that a person with a disability could meet these requirements. Custodians shall establish internal procedures for identifying and seeking the deputy head's approval of full or partial exemptions from the accessibility requirements of this standard. They shall document the rationale for these exemptions and maintain records of all real property that is partially or fully exempted in accordance with this standard.

5.6. If the criteria that justified the exemption change, the custodian shall reassess the real property against this standard to ensure that the exemption is still justified.

5.7. Custodians may allow minor variations from the accessibility requirements of this standard (including the technical standard). However, such variations shall be consistent with the general intent of this standard and shall not affect the general accessibility of a specific property.

5.8. Where the accessibility requirements of this standard will significantly reduce the heritage quality of the property, some deviation from this standard is permitted. In deviating from the standard, custodians shall ensure that the following requirements are met:

- a. access shall be provided to at least one main level of the building;
- b. there shall be full access to government services and employment opportunities;
- c. where washroom facilities are provided in an inaccessible location, equivalent facilities that are accessible shall also be provided; and
- d. for inaccessible exhibitions, another version of the exhibition, such as a video display, shall be provided in an accessible area.

6. References

Treasury Board policy instruments

- Federal Identity Program Manual, Section 4.3b. Tactile Signage
- Management of Information Technology Standards
- Policy on the Duty to Accommodate Persons with Disabilities in the Federal Public Service
- Policy on the Management of Real Property

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7. Enquiries

Please direct enquiries about this standard to your departmental headquarters. For interpretation of this standard, headquarter officials should contact:

Real Property and Materiel Policy Division

Treasury Board of Canada Secretariat

L'Esplanade Laurier

140 O'Connor Street

Ottawa ON K1A 0R5

Telephone: (613) 941-7173

Facsimile: (613) 957-2405

E-mail: rpmpd@tbs-sct.gc.ca

Date Modified: 2006-06-26

PUBLIC SERVICES AND PROCUREMENT CANADA REAL PROPERTY SERVICES

APPENDIX B: PROJECT TEAM

Project Leader: The (National) Asset and Facilities Management Directorate

Property Manager: Insert

Portfolio Manager: Insert

Accessibility Coordinator: Insert

Accessibility Survey Team: Insert

SUBMISSION REQUIREMENTS AND EVALUATION (SRE)

SRE 1 GENERAL INFORMATION

1.1 Reference to the Selection Procedure

An 'overview of the selection procedure' can be found in General Instructions to Proponents (GI 9).

1.2 Submission of Proposals

The Proponent is responsible for meeting all submission requirements. Please follow detailed instructions in "Submission of Proposals", General Instructions to Proponents (GI 10).

1.3 Calculation of Total Score

For this Standing Offer 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 should be implemented when preparing the proposal.

- Submit one (1) bound original plus five (5) bound copies and one (1) electronic copy (disk or USB stick) of the proposal either;
 - One Zone, submission; OR,
 - Single package submission for multiple Zones,
- 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 432mm (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 of the Request for Standing Offer SRE 3 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 vary in accordance with the number of *Zones* being proposed.

A consultant submitting proposals on more than one Zone may either submit one (1) proposal that includes all the applicable proposed zones (in which case the proponent is allowed the maximum page limit per the applicable number of zones being proposed as shown below), or

A consultant can submit separate proposals that are specific to one zone (in which case the proponent is allowed a maximum of 35 pages).

- _ One Zone - maximum thirty-five (35) pages
- _ Two Zones - maximum forty (40) pages
- _ Three Zones - maximum forty-five (45) pages
- _ Four Zones - maximum fifty (50) pages
- _ Five Zones - maximum fifty-five (55) pages

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

- Covering letter
- Declaration/Certifications Form (Appendix A)
- Integrity Provisions –Required Documentation
- Front page of the Request for Standing Offer document
- Front page of revision(s) to the Request for Standing Offer document
- Price proposal Form (Appendix B)
- Team Identification Format (Appendix D)

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 Declaration/Certifications Form

Proponents must complete, sign and submit the following:

- A. Appendix A, Declaration / Certifications Form as required.

3.1.2 Licensing, Certification or Authorization

The Proponent shall be authorized to provide Engineering or Architectural Services and must include an Architect, Electrical Engineer, Mechanical Engineer, Structural Engineer, Vertical Transportation Specialist, Cost Consultant and Specialty Expertise, licensed, 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 law. If the Proponent is licensed to practise in only one of the three provinces then that Proponent must be eligible and willing to be licensed in the province in which they are not licensed.

You must indicate current license or how you intend to meet the provincial licensing requirements.

3.1.3 Consultant Team Identification

The consultant team to be identified must include the following:

- | | |
|------------------------------|-----------------------|
| Proponent (prime consultant) | Architect or Engineer |
| Key Sub-consultants | Architect |

	Mechanical Engineer Electrical Engineer Structural Engineer
Specialists	Vertical Transportation Specialist Cost Specialist
Specialty Expertise - Refer to Additional Stand Alone Assessments of the Project Brief	Asset Management Plan (AMP) Consultant Building Envelope Consultant Thermographer.

Information required: name of firm, key personnel to be assigned to this Standing Offer. For the prime consultant and key sub-consultants/specialists indicate current license as applicable and/or how you intend to meet the provincial licensing/membership requirements. In the case of a joint venture identify the existing or proposed legal form of the joint venture (refer to General Instructions - Limitation of Submissions).

3.1.4 Integrity Provisions – Required documentation

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

3.2 RATED REQUIREMENTS

Proposals meeting the mandatory requirements will be evaluated in accordance with the following criteria. The clarity of the proposal writing will form part of the evaluation (use of language, document structure, conciseness and completeness of the response):

3.2.1 Comprehension of the Scope of Services

1. *What we are looking for:*
A demonstration of the understanding of the overall requirements for services, including specific deliverables, expected approaches, technical expectations, and coordination requirements, especially in delivering government projects.
2. *What the Proponent should provide:*
 - a) scope of services - detailed list of services;
 - b) broader goals (federal image, sustainable development, sensitivities);
 - c) project management approach to working with PWGSC (understanding of PWGSC management structure, Client environment, standing offer process, working with the government in general);

3.2.2 Team Approach / Management of Services

1. *What we are looking for:*
How the team will be organized in its approach and methodology in the delivery of the Required Services and how committed they are to honouring deadlines.
2. *What the Proponent should provide:*
A description of:
 - a) Roles and responsibilities of key personnel;
 - b) Assignment of the resources and availability of back-up personnel;
 - c) Management and organization (reporting structure);
 - d) Description of the firm's approach to responding to the individual call-ups which will arise as a result of this standing offer;
 - e) Quality control techniques;
 - f) Demonstration of how the team intends to meet the 'Project Response Time Requirements' which is 48 hours after reserve number assignment and 10 days after contract award;
 - g) Demonstration of how the team intends to rectify the situation of a missed deliverable deadline or a dissatisfied client and
 - h) Conflict resolution.

3.2.3 Proponent's Past Experience on Projects

1. *What we are looking for:*
Demonstration that over at least the past seven (7) years, the Proponent or Proponent's senior personnel have completed building condition evaluations and produced Building Condition Reports (BCR) that include a Unifomat II Level 3 detail assessment of building components and Facility Condition Indexing (FCI) involving criticality analysis and assessment of building component remaining life and recommendations for component life extension and replacement projects covering a period of at least twenty-five years into the future.
2. *What the Proponent should provide:*
 - a) A brief description of a maximum of three (3) significant building or component condition evaluation projects completed over the last seven (7) years by the firm;
 - b) For the above projects, include the names of senior personnel and project personnel who were involved as part of the project team and their respective responsibilities;
 - c) For the above projects, indicate if the Building Condition Data was entered into a facility database such as; Recap Validation Survey (RVS), Asset Validation Survey (AVS) or VFA survey.
 - d) Indicate the dates the services were provided for the listed projects;
 - e) Scope of services rendered, project objectives, constraints and deliverables; and
 - f) Client references - name, address, e-mail, phone and fax of client contact at working level. Reference checks may be completed if deemed necessary.

3. The Proponent (as defined in the General Instructions G11) 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.
4. Indicate those projects that were carried out in joint venture and the responsibilities of each of the involved firms in each project.

***Note: significant is defined as any one or multiple components of a Building System.**

3.2.4 Sub Consultant's Past Experience on Projects

Describe the accomplishments, achievements and experience either as prime consultant or in a sub-consultant capacity on projects. If the Proponent proposes to provide multi-disciplinary services, which might otherwise be performed by a sub-consultant/ Specialist, it should be reflected under this rated requirement.

1. *What we are looking for:*
The Proponent should demonstrate that their key Sub-Consultants (Architect, Mechanical Engineer, Electrical Engineer and Structural Engineer) have completed building condition evaluations and Building Condition Reports that include an assessment of building component remaining life and recommendations for component life extension and replacement projects covering a period of at least twenty-five years into the future.
2. What the Proponent should provide:
 - a) A brief description of a maximum of five (5) significant building or component condition evaluation projects for large portfolio complexes completed over the last seven (7) years by the firm;
 - b) For the above projects, include the names of senior personnel and project personnel who were involved as part of the project team and their respective responsibilities;
 - c) For the above projects, indicate if the Building Condition Data was entered into a VFA survey or facility database such as; RVS or AVS;
 - d) Indicate the dates the services were provided for the listed projects;
 - e) Scope of services rendered, project objectives, constraints and deliverables; and
 - f) Client references - name, address, e-mail, phone and fax of client contact at working level. Reference checks may be completed if deemed necessary.
3. Indicate those projects that were carried out as a Sub-Consultant and which were carried out as a Prime Consultant while stating your responsibilities for each project.

***Note: significant is defined as any one or multiple components of a Building System.**

3.2.5 Senior and Project Personnel Expertise and Experience

1. *What we are looking for:*
A demonstration that the Proponent has senior and project personnel in the team with the capability, capacity and expertise to provide the required services and deliverables listed in Required Services (RS) Section.

2. *What the Proponent should provide:*

Submit a maximum of three (3) curriculum vitae (c.v.'s) of Prime Consultant senior personnel (of which, two (2) c.v.'s are of senior project personnel, which will perform the majority of the services resulting from the individual Call-ups) and one (1) c.v. of senior personnel for each Sub-Consultant/Specialist/Specialty Expert of the consultant team. Each CV must clearly indicate:

- Years of experience the senior and project personnel has in the provision of the services specified in the Required Services (RS) section;
- Identify the personnel's years of experience and the number of years with the firm;
- Professional accreditation;
- Accomplishments/achievements/awards.

3.2.6 Hypothetical Projects

1. *What we are looking for:*

Describe the approach and methodology that you would employ to deliver the project in a general written response only.

The clarity of the report writing will form part of the evaluation (use of language, document structure, conciseness and completeness of the response).

2. What the Proponent should provide for each hypothetical project:

- a) description of the approach and methodology that you would employ to organize and carryout the project;
- b) summary of your proposed work breakdown structure, i.e. scope of work, resources assigned, time schedule and level of effort, in terms of number of hours for all resource categories;
- c) appropriateness of assigned resources;
- d) level of effort;
- e) project management approach to working with PWGSC (understanding of PWGSC management structure, Client environment, Standing Offer process, working with the government in general); and
- f) problem-solving methodology (client involvement, PWGSC involvement, other government agency involvement, creative approaches to solving problems).

Calculation of a fee for the provision of these services is not required.

3. **The Facts:**

When responding to the following hypothetical fact situations, be advised that the hypothetical is to be used for evaluation purposes only. Areas and details in the hypothetical are provided only to give the Proponent sufficient material from which to develop an outline of their approach and methodology to the resolution of the issues. The proponent shall be advised that these responses could be the key difference in evaluation in the event of similar scores between multiple proponents after review of the technical expertise.

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PROJECT 1

The effective age and remaining economic life of building components in a 60 year old Asset shows that there needs to be multiple events/repairs requiring replacement of building systems and equipment within the 5 year horizon

1. Explain how your Project Approach, Work Breakdown Structure and Level of effort to conduct a Building Condition Report will differ from that of a 40 year old Asset that has not yet been designated or classified under FHBRO review.

2. Describe any special concerns and risk management strategies that you have in providing the assessment of the 30 year costs for proposed component life extension or replacement.

PROJECT 2

Rural Campus is comprised of 10 mixed use buildings sharing a common heating Plant (averaging 5,000 m2 gross area each), with varying (high & medium) security requirements and a restricted access perimeter.

1) Explain how your Project Approach, Work Breakdown Structure and Level of Effort (LoE) to conduct a Building Condition Report for this campus, would differ from that of a centrally located, typical office building in the downtown core and;

2) Describe any special concerns and risk management strategies that you plan for to ensure an accurate 30 year list of costs, resulting from your proposed component life extension and replacement costs.

3.3 EVALUATION AND RATING

Proposals that are responsive (i.e. which meet all the mandatory requirements set out in the Request for Standing Offer) will be reviewed, evaluated and rated by a PWGSC Evaluation Board. In the first instance, price envelopes will remain sealed and only the technical components of the proposal will be evaluated in accordance with the following to establish Technical Ratings:

Criterion	Weight Factor	Rating	Weighted Rating
Comprehension of the Scope of Services	1.5	0 - 10	0 - 15
Team Approach / Management of Services	1.0	0 - 10	0 - 10
Proponent's Past Experience on Projects	1.5	0 - 10	0 - 15
Sub-Consultant's Past Experience on Projects	1.5	0 - 10	0 - 15
Senior and Project Personnel Expertise and Experience	2.0	0 - 10	0 - 20
Hypothetical Projects	2.5	0 - 10	0 - 25
Total	10.0		0 - 100

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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

To be considered further, proponents **must** achieve a minimum weighted rating of sixty (60) out of the hundred (100) points available for the rated technical criteria as specified above.

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

SRE 4 PRICE OF SERVICES

All price proposal envelopes corresponding to responsive proposals which have achieved the pass mark of sixty (60) points are opened upon completion of the technical evaluation. When there are three or more responsive proposals, an average price is determined by adding all the price proposals together and dividing the total by the number of price proposals being opened. This calculation will not be conducted when one or two responsive proposals are received.

All price proposals which are greater than twenty-five percent (25%) above the average price will be set aside and will 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	0 - 100	90	0 - 90
Price Rating	0 - 100	10	0 - 10
Total Score		100	0 – 100

The proposals will be ranked in order from the highest to the lowest using the total score (technical plus price). The proponents submitting the highest ranked proposals will be recommended for issuance of a standing offer. In the case of a tie, the Proponent submitting the lower price for the services will be selected. Canada reserves the right to issue up to fifteen Standing Offers.

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. Follow detailed instructions in "Submission of Proposals", General Instructions to Proponents (GI 10).

- ☐ Declaration / Certifications Form - completed and signed form provided in Appendix A
- ☐ Integrity Provisions – Required documentation – **as applicable**, in accordance with the Ineligibility and Suspension Policy (<http://www.tpsgc-pwgsc.gc.ca/ci-if/politique-policy-eng.html>) and as per General instructions to Proponents (GI), Integrity Provisions – Proposal, **section 3a**.
- ☐ Integrity Provisions - Declaration of Convicted Offences – **with its bid, as applicable**, in accordance with the Ineligibility and Suspension Policy (<http://www.tpsgc-pwgsc.gc.ca/ci-if/politique-policy-eng.html>) and as per General instructions to Proponents (GI), Integrity Provisions – Proposal Article 3b.
- ☐ Submit one (1) bound original plus five (5) bound copies and one (1) electronic copy (disk or USB stick) of the proposal either;
 - One Zone, submission; OR,
 - Single package submission for multiple Zones,
- ☐ Front page of Request for Standing Offer
- ☐ Front page of Revision(s) to a Request for Standing Offer

In a separate envelope:

- ☐ Price Proposal form - one (1) completed and submitted in a separate envelope, per each *Zone* offered, as provided in Appendix B.

APPENDIX A

Declaration/Certifications Form

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Declaration / Certifications Form (page 1 of 5)

Name of Proponent: _____

Street Address:

Mailing Address (if different than street address)

City: _____

City: _____

Prov./Terr./State: _____

Prov./Terr./State: _____

Postal/ZIP Code: _____

Postal/ZIP Code: _____

Telephone Number:() _____

Fax Number: () _____

E-Mail: _____

Procurement Business Number: _____

Type of Organization

____ Sole Proprietorship

____ Partnership

____ Corporation

____ Joint Venture

Size of Organization

Number of Employees _____

Graduate Architects/ _____

Prof. Engineers:

Other Professionals _____

Technical Support _____

Other _____

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Declaration / Certifications Form (page 2 of 5)**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 may set-aside a Standing Offer, or will declare a consultant in default, if a certification is found to be untrue, whether during the proposal evaluation period, during the Standing Offer period, or during the contract period. Canada will have the right to ask for additional information to verify the Proponent's certifications. Failure to comply with any request or requirement imposed by Canada may render the proposal non-responsive, may result in the Standing Offer set-aside, or constitute a default under the contract.

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

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

Complete both A and B.

A. Check one of the following:

- () A1. The Proponent certifies having no work force in Canada.
- () A2. The Proponent certifies being a public sector employer.
- () A3. The Proponent certifies being a federally regulated employer being subject to the *Employment Equity Act*.
- () A4. The Proponent certifies having a combined work force in Canada of less than 100 permanent full-time and/or permanent part-time employees.

A5. The Proponent certifies having a combined workforce in Canada of 100 or more employees; and

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

OR

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

B. Check only one of the following:

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

OR

Declaration / Certifications Form (page 3 of 5)

- () 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)

Former Public Servant (FPS) - Certification

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

Definitions

For the purposes of this clause,

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

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

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

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

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Declaration / Certifications Form (page 4 of 5)

Former Public Servant in Receipt of a Pension

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

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

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

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

Work Force Adjustment Directive

Is the Proponent a FPS who received a lump sum payment pursuant to the terms of a Work Force Adjustment Directive? **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 the Goods and Services Tax or Harmonized Sales Tax.

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Name of Proponent: _____

This Declaration forms part of the offer.

Education, Professional Accreditation and Experience:

All statements made with regard to the education, professional accreditation and the experience of individuals proposed for providing services under the Standing Offer are accurate and factual, and we are aware that Canada reserves the right to verify any information provided in this regard and that untrue statements may result in the proposal being declared non-responsive. Should a verification by Canada disclose untrue statements, Canada shall have the right to treat any standing offer resulting from this solicitation as being in default and to terminate it accordingly.

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.

Name (print): _____

Capacity: _____

Signature _____

Telephone Number: () _____

Fax Number: () _____

E-mail: _____

Date: _____

During proposal evaluation period, PWGSC contact will be with the above named person.

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

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APPENDIX B

Price Offer

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APPENDIX B - PRICE OFFER INSTRUCTIONS

1. Complete price offer form and submit in a separate sealed envelope, with the Offeror's name, Solicitation Number, Name of Zone being proposed and "Price Offer Form" typed on the outside.
2. Price offers are not to include GST/HST and will be evaluated in Canadian Dollars.
3. Offerors are not to alter or add information to the form.
4. In order to ensure that fair and competitive hourly rates are received for each of the positions listed, the following requirement must be strictly adhered to: **Offerors must provide an hourly all inclusive rate for each listed position.** In the event that the firm consists of fewer personnel than listed, provide an hourly all inclusive rate that corresponds with each position listed. The hourly all inclusive rate provided must be equal to or greater than the hourly all inclusive rate provided for the position listed below it. For example, if the firm does not have an Intermediate Personnel, the hourly all inclusive rate provided must be equal to or greater than the hourly all inclusive rate provided for the Junior Personnel. The hourly rate for any given category of personnel cannot be \$0 or nil value. Failure to insert an hourly all inclusive rate for each position listed will render your offer non-responsive.
5. The Offeror shall provide a single fixed hourly all inclusive rate for each category of personnel of each sub-consultant and specialist. The hourly all inclusive rates identified herein will be fixed for the duration of the Standing Offer.
6. Travel and Living Expenses: Firms are advised that any travel time and travel-related expenses associated with the delivery of services within a 50 km radius of each major city located in each Zone as detailed herein are to be calculated as an integral part of the hourly rates. For delivery of services outside of this 50 km radius, travel-related expenses will be paid (with prior approval of the Departmental Representative) in accordance with current National Joint Council Travel Directive.
 - Northern Alberta is Edmonton, AB,
 - Southern Alberta is Calgary, AB,
 - Northern Saskatchewan is Saskatoon, SK,
 - Southern Saskatchewan is Regina, SK, and
 - Manitoba is Winnipeg, MB.
7. Training: Firms are advised that all training time is to be calculated as an integral part of the hourly all inclusive rates, for all training provided by PWGSC.
8. Fixed hourly all inclusive rates for each category are to be provided in column B and are then multiplied by the weight factor in column A (provided for evaluation purpose only).
9. In the summary table, the Total Weighted Hourly Rates for each Discipline for Years 1-3 are to be entered in column B and then multiplied by the weight factor % in column A (provided for evaluation purposes only), and the Total Weighted Hourly Rates for each Discipline for the Option Year are to be entered in column D and then multiplied by the weight factor % in column A (provided for evaluation purposes only).
10. In the event that a mathematical error occurs in carrying over the totals, PWGSC will correct the totals to ensure the fairness of the Offers.

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APPENDIX B – PRICE OFFER

Name of Offeror: _____

Address: _____
_____**ZONE PROPOSED** _____**FOR THE THREE (3) YEAR PERIOD OF JUNE 1, 2017 TO MAY 31, 2020 (ESTIMATE)****Prime Consultant** _____

	Weight Factor (A)	Fixed Hourly Rate (all inclusive) (B)	Total (A X B)
Partner or Principals of the firm	10	\$	\$
Senior Personnel	25	\$	\$
Intermediate Personnel	35	\$	\$
Junior Personnel	15	\$	\$
Administrative Support	15	\$	\$
Total:	100		\$

1

Architect _____

	Weight Factor (A)	Fixed Hourly Rate (all inclusive) (B)	Total (A X B)
Partner or Principals of the firm	10	\$	\$
Senior Personnel	25	\$	\$
Intermediate Personnel	35	\$	\$
Junior Personnel	15	\$	\$
Administrative Support	15	\$	\$
Total:	100		\$

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Mechanical Engineer

	Weight Factor (A)	Fixed Hourly Rate (all inclusive) (B)	Total (A X B)
Partner or Principals of the firm	10	\$	\$
Senior Personnel	25	\$	\$
Intermediate Personnel	35	\$	\$
Junior Personnel	15	\$	\$
Administrative Support	15	\$	\$
Total:	100		\$

3

Electrical Engineer

	Weight Factor (A)	Fixed Hourly Rate (all inclusive) (B)	Total (A X B)
Partner or Principals of the firm	10	\$	\$
Senior Personnel	25	\$	\$
Intermediate Personnel	35	\$	\$
Junior Personnel	15	\$	\$
Administrative Support	15	\$	\$
Total:	100		\$

4

Structural Engineer

	Weight Factor (A)	Fixed Hourly Rate (all inclusive) (B)	Total (A X B)
Partner or Principals of the firm	10	\$	\$
Senior Personnel	25	\$	\$
Intermediate Personnel	35	\$	\$
Junior Personnel	15	\$	\$
Administrative Support	15	\$	\$
Total:	100		\$

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Vertical Transportation Specialist

	Weight Factor (A)	Fixed Hourly Rate (all inclusive) (B)	Total (A X B)
Partner or Principals of the firm	15	\$	\$
Senior Personnel	30	\$	\$
Intermediate Personnel	40	\$	\$
Administrative Support	15	\$	\$
Total:	100		\$

6

Cost Specialist - Cost Estimating/Quantity Surveying

	Weight Factor (A)	Fixed Hourly Rate (all inclusive) (B)	Total (A X B)
Partner or Principals of the firm	15	\$	\$
Senior Personnel	30	\$	\$
Intermediate Personnel	40	\$	\$
Administrative Support	15	\$	\$
Total:	100		\$

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Specialty Expertise (refer Additional Stand Alone Assessments of the Project Brief):**Asset Management Plan Consultant (AMP) Consultant** _____

	Weight Factor (A)	Fixed Hourly Rate (all inclusive) (B)	Total (A X B)
Partner or Principals of the firm	10	\$	\$
Senior Personnel	25	\$	\$
Intermediate Personnel	35	\$	\$
Junior Personnel	15	\$	\$
Administrative Support	15	\$	\$
Total:	100		\$

8

Building Envelope Consultant _____

	Weight Factor (A)	Fixed Hourly Rate (all inclusive) (B)	Total (A X B)
Partner or Principals of the firm	15	\$	\$
Senior Personnel	30	\$	\$
Intermediate Personnel	40	\$	\$
Administrative Support	15	\$	\$
Total:	100		\$

9

Thermographer _____

	Weight Factor (A)	Fixed Hourly Rate (all inclusive) (B)	Total (A X B)
Partner or Principals of the firm	10	\$	\$
Senior Personnel	35	\$	\$
Intermediate Personnel	40	\$	\$
Administrative Support	15	\$	\$
Total:	100		\$

10

Solicitation No. – N° de l'invitation

Amd. No. - N° de la modif.

Buyer ID - Id de l'acheteur

EW003-173064/A

PWU909

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

File No. - N° du dossier

CCC No./N° CCC - FMS No./N° VME

EW003-173064

FOR THE ONE (1) YEAR OPTION PERIOD OF JUNE 1, 2020 TO MAY 3, 2021 (ESTIMATE)
Prime Consultant

	Weight Factor (A)	Fixed Hourly Rate (all inclusive) (B)	Total (A X B)
Partner or Principals of the firm	10	\$	\$
Senior Personnel	25	\$	\$
Intermediate Personnel	35	\$	\$
Junior Personnel	15	\$	\$
Administrative Support	15	\$	\$
Total:	100		\$

1

Architect

	Weight Factor (A)	Fixed Hourly Rate (all inclusive) (B)	Total (A X B)
Partner or Principals of the firm	10	\$	\$
Senior Personnel	25	\$	\$
Intermediate Personnel	35	\$	\$
Junior Personnel	15	\$	\$
Administrative Support	15	\$	\$
Total:	100		\$

2

Mechanical Engineer

	Weight Factor (A)	Fixed Hourly Rate (all inclusive) (B)	Total (A X B)
Partner or Principals of the firm	10	\$	\$
Senior Personnel	25	\$	\$
Intermediate Personnel	35	\$	\$
Junior Personnel	15	\$	\$
Administrative Support	15	\$	\$
Total:	100		\$

3

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Electrical Engineer

	Weight Factor (A)	Fixed Hourly Rate (all inclusive) (B)	Total (A X B)
Partner or Principals of the firm	10	\$	\$
Senior Personnel	25	\$	\$
Intermediate Personnel	35	\$	\$
Junior Personnel	15	\$	\$
Administrative Support	15	\$	\$
Total:	100		\$

4

Structural Engineer

	Weight Factor (A)	Fixed Hourly Rate (all inclusive) (B)	Total (A X B)
Partner or Principals of the firm	10	\$	\$
Senior Personnel	25	\$	\$
Intermediate Personnel	35	\$	\$
Junior Personnel	15	\$	\$
Administrative Support	15	\$	\$
Total:	100		\$

5

Vertical Transportation Specialist

	Weight Factor (A)	Fixed Hourly Rate (all inclusive) (B)	Total (A X B)
Partner or Principals of the firm	15	\$	\$
Senior Personnel	30	\$	\$
Intermediate Personnel	40	\$	\$
Administrative Support	15	\$	\$
Total:	100		\$

6

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Cost Specialist - Cost Estimating/Quantity Surveying

	Weight Factor (A)	Fixed Hourly Rate (all inclusive) (B)	Total (A X B)
Partner or Principals of the firm	15	\$	\$
Senior Personnel	30	\$	\$
Intermediate Personnel	40	\$	\$
Administrative Support	15	\$	\$
Total:	100		\$

7

Specialty Expertise (refer Additional Stand Alone Assessments of the Project Brief):**Asset Management Plan Consultant (AMP) Consultant**

	Weight Factor (A)	Fixed Hourly Rate (all inclusive) (B)	Total (A X B)
Partner or Principals of the firm	10	\$	\$
Senior Personnel	25	\$	\$
Intermediate Personnel	35	\$	\$
Junior Personnel	15	\$	\$
Administrative Support	15	\$	\$
Total:	100		\$

8

Building Envelope Consultant

	Weight Factor (A)	Fixed Hourly Rate (all inclusive) (B)	Total (A X B)
Partner or Principals of the firm	15	\$	\$
Senior Personnel	30	\$	\$
Intermediate Personnel	40	\$	\$
Administrative Support	15	\$	\$
Total:	100		\$

9

Thermographer

	Weight Factor (A)	Fixed Hourly Rate (all inclusive) (B)	Total (A X B)
Partner or Principals of the firm	10	\$	\$
Senior Personnel	35	\$	\$
Intermediate Personnel	40	\$	\$
Administrative Support	15	\$	\$
Total:	100		\$

10

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

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Appendix B – Price Offer Summary Table - For Evaluation Purposes

DISCIPLINE	(A) Weight Factor %	(B) Weighted Hourly Rates Years 1-3	(C) Total (A X B)	(D) Weighted Hourly Rates Option Year	(E) Total (A X D)
Prime Consultant	10%	\$ _____ 1		\$ _____	1
Architect	18%	\$ _____ 2		\$ _____	2
Mechanical Engineer	16%	\$ _____ 3		\$ _____	3
Electrical Engineer	16%	\$ _____ 4		\$ _____	4
Structural Engineer	16%	\$ _____ 5		\$ _____	5
Vertical Transportation Specialist	8%	\$ _____ 6		\$ _____	6
Cost Specialist	8%	\$ _____ 7		\$ _____	7
Specialty Expertise	8%	\$ _____ 8 - 10		\$ _____	8 - 10
SUB TOTAL:	100		\$ _____ 11		\$ _____ 11
TOTAL FOR EVALUATION PURPOSES					\$ _____
COLUMN C SUB TOTAL (Years 1-3) + COLUMN E SUB TOTAL (Option Year) =					\$ _____

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EW003-173064

Signature of Consultant or Joint Venture Consultants

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Signature

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Signature

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Capacity

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Capacity

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Signature

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Signature

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Capacity

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Capacity

END OF PRICE OFFER FORM

Solicitation No. – N° de l'invitation

Amd. No. - N° de la modif.

Buyer ID - Id de l'acheteur

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PWU909

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CCC No./N° CCC - FMS No./N° VME

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APPENDIX C
GENERAL PROCEDURES AND STANDARDS (GP&S)

Refer to pdf attached

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

File No. - N° du dossier

CCC No./N° CCC - FMS No./N° VME

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APPENDIX D - TEAM IDENTIFICATION FORMAT

For details on this format, please see SRE in the Request for Standing Offer.

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 for each **Zone** being proposed.

I. Prime Consultant (Proponent – Architect or Engineer):

Firm or Joint Venture Name:

.....

.....

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

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II. Key Sub Consultants / Specialists:

Architect

Firm Name:

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

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Mechanical Engineer

Firm Name:

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

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Solicitation No. – N° de l'invitation

Amd. No. - N° de la modif.

Buyer ID - Id de l'acheteur

EW003-173064/A

PWU909

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

File No. - N° du dossier

CCC No./N° CCC - FMS No./N° VME

EW003-173064

Electrical Engineer

Firm Name:

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

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Structural Engineer

Firm Name:

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

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Vertical Transportation Specialist

Firm Name:

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

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Cost Specialist/Cost Quantity Surveyor

Firm Name:

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.....

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

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.....

Solicitation No. – N° de l'invitation

Amd. No. - N° de la modif.

Buyer ID - Id de l'acheteur

EW003-173064/A

PWU909

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

File No. - N° du dossier

CCC No./N° CCC - FMS No./N° VME

EW003-173064

Specialty Expertise (refer Additional Stand Alone Assessments of the Project Brief):

- **Asset Management Plan Consultant (AMP)**

Firm Name:

.....
.....

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

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- **Building Envelope Consultant**

Firm Name:

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

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- **Thermographer**

Firm Name:

.....
.....

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

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APPENDIX E**HEALTH AND SAFETY**

Workers Compensation

1. The recommended Proponent shall provide to the Contracting Authority, prior to Contract award:
 - a) a Workers Compensation Board letter of good standing, also listing covered Directors, Principals, Proprietor(s) or Partners who will be or who are anticipated to be present on the work site(s).
2. The recommended Proponent shall deliver all of the above documents to the Contracting Authority on or before the date stated (usually 3-5 days after notification) by the Contracting Authority. Failure to comply with the request may result in the proposal being declared non-compliant.

Employer/Prime Consultant:

1. During the Design Stage
 - a) The Consultant shall, where the Consultant is working on Federal property and is in control of the work site (no Federal presence or construction contractor), for the purposes of the applicable provincial or territorial Occupational Health & Safety Acts and Regulations, and for the duration of the Work of the Contract:
 - i) act as the Employer, where the Consultant is the only employer on the work site, in accordance with the Authority Having Jurisdiction;
 - ii) assume the role of Prime Consultant, where there are two or more employers (including sub-consultants) involved in work at the same time and space at the work site, in accordance with the Authority Having Jurisdiction; and
2. During the Construction Stage
 - a) The Consultant shall, for the purposes of the Occupational Health & Safety Acts and Regulations, and for the duration of the Work of the Contract, agree to accept that the Construction Contractor is the Principal/Prime Contractor, and to conform to that Contractor's Site Specific Health and Safety Plan.



Public Works and
Government Services
Canada

Travaux publics et
Services gouvernementaux
Canada

Canada



GENERAL PROCEDURES & STANDARDS

For Professional & Design Services

MMXI Edition

www.pwpsc-tpsgc.gc.ca



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I INTRODUCTION

I.1 GENERAL PROCEDURES AND STANDARDS

I.1.1 GENERAL

- .1 These PWGSC *General Procedures and Standards* (P&S) have been developed to:
 - .1 Facilitate the development of a rational, well-documented design process; and
 - .2 Ensure compliance with federal government standards, PWGSC Policies and Treasury Board directives.

I.1.2 HARMONIZATION WITH THE TERMS OF REFERENCE (TOR)

- .1 The P&S document must be used in conjunction with the TOR, as the two documents are complimentary.
- .2 The TOR describes project-specific requirements, services and deliverables while the GP&S document outlines with minimum standards and procedures common to all projects.
- .3 In the case of a conflict between the two documents, the requirements of the TOR override this document.

I.2 PROJECT DELIVERY

I.2.1 GENERAL REQUIREMENTS

- .1 The project delivery requirements outlined in this section are applicable to the design and construction of all PWGSC projects in Western Region, unless otherwise indicated in the TOR.
- .2 Under the direction of the Consultant, the Consultant team shall provide fully integrated and coordinated professional and design services for the delivery of a project, in accordance with the requirements in the TOR and as contained herein.
- .3 The Consultant must:
 - .1 Obtain written authorization from the Departmental Representative before proceeding from one phase of work to the next phase of a project;
 - .2 Coordinate all services with the Departmental Representative;
 - .3 Deliver each project utilizing best practices in support of User Department needs, respecting the approved financial budget, schedule, scope, quality energy budget;
 - .4 Establish a cohesive functional partnership and open communication between all members of the project delivery team throughout all phases of the project life;
 - .5 Ensure that the Consultant team has an in-depth understanding and collective 'buy-in' of the project requirements, scope, budget and scheduling objectives, working constructively to build a collaborative and cooperative team approach with knowledgeable and timely input and contribution by all project team members, including representatives from PWGSC and the User Department;
 - .6 Conduct rigorous quality assurance reviews during the design and construction phases, including the application of value engineering principles during the design of all complex systems;
 - .7 Provide a written response to all PWGSC comments included in Quality Assurance reviews conducted throughout the design of the project;
 - .8 If any alterations are required during the development of the design, analyse the impact on all project components and resubmit for approval before proceeding further;
 - .9 Establish and maintain a change control procedure for scope changes;



- .10 Ensure that an experienced Project Architect or Project Engineer is assigned to each project, who shall be responsible for the production, coordination and delivery of all design and construction documents for all project disciplines;
- .11 Prepare a continuous risk identification and management program employing effective methodologies to ensure construction safety as well as claims avoidance;
- .12 Provide continuous and comprehensive documentation of the project at all stages of the project implementation;
- .13 Ensure continuity of key personnel and maintain a dedicated working team for the life of the project;

I.2.2 SERVICE DELIVERY FOR ALL PROJECTS

- .1 For all projects, the Consultant shall:
 - .1 Deliver the project to be within;
 - .1 The established construction budget,
 - .2 The key milestones, according to the established project schedule.
 - .2 Ensure that each Consultant team member:
 - .1 Understands the project requirements, for seamless delivery of the required services;
 - .2 Functions as a cohesive partnership with open communication between all members of the project delivery team throughout all phases of the project life;
 - .3 Function as an integrated and focused team with an in-depth understanding and collective 'buy-in' of the project requirements, scope, budget and scheduling objectives.
- .3 Provide;
 - .1 Full co-ordination of services with other consultants engaged by PWGSC,
 - .2 A continuous risk management program to address the risks associated specifically with this project, including construction safety and claims avoidance issues.
- .4 Deliver the work in a professional manner during all phases of the project, employing best practices for budget, schedule, quality, and scope management;
- .5 Maintain continuity of key personnel and maintain a dedicated working team for the life of the project.

I.2.3 SERVICE DELIVERY (BUILDINGS)

- .1 For Building projects, where an Architectural firm is the Prime Consultants, the Consultant team shall, as a minimum, adhere to the standards of services outlined in the "Canadian Handbook of Practice for Architects - Volume 2 Management" (latest edition) distributed by the Royal Architectural Institute of Canada (RAIC).

I.2.4 SERVICE DELIVERY (ENGINEERING)

- .1 For Engineering projects, where an Engineering firm is the Prime Consultants, the Consultant team shall adhere to the standards of services established by the Professional Engineering Association in the Province or Territories where the project is located.

I.3 PROCUREMENT OF GOODS AND SERVICES

I.3.1 PUBLIC PROCUREMENT

- .1 Public procurement by Canada is legislated and guided by a number of international and national trade agreements, and acts, as well as policies, directives, and guidelines provided by the Treasury Board Secretariat (TBS) and PWGSC.



- .2 There is one over-arching principle for all PWGSC procurement activities: Integrity. Subordinate to this are guiding principles, which provide the framework for PWGSC procurement process.
- .3 For further information refer to the following web link;
 - .1 <http://www.tpsgc-pwgsc.gc.ca/app-acq/cndt-cndct/contexte-context-eng.html>

I.3.2 INTEGRITY AND GUIDING PRINCIPLES

- .1 PWGSC procurement processes will be open, fair and honest.
- .2 Client Service:
 - .1 PWGSC will make every reasonable effort to satisfy the operational requirements of its clients, while obtaining the best value in each procurement process.
- .3 National Objectives:
 - .1 PWGSC procurement activities will advance established government policies, within the limits imposed by international trade obligations.
- .4 Competition:
 - .1 PWGSC procurement will be competitive, with specific exceptions.
- .5 Equal Treatment:
 - .1 PWGSC must ensure that all potential bidders of a particular requirement are subject to the same conditions.
- .6 Accountability:
 - .1 PWGSC is accountable for the integrity of the contracting process.



2 REQUIRED SERVICES STANDARDS

2.1 GENERAL

- .1 Where Services are called for in the project specific TOR, the standards outlined in the following articles apply.

2.2 COST MANAGEMENT

2.2.1 GENERAL

- .1 The following provides a general indication of the information needed by the Consultant's cost estimator to prepare specific classifications of estimates.
- .2 These are the minimum requirements only and should be supplemented where additional information exists or is warranted.
- .3 Construction cost estimates are to be prepared and submitted to PWGSC at various stages during the design process.
- .4 In addition to the Consultants' estimate, PWGSC may have independent estimates performed to compare with the Consultant estimate.

2.2.2 TREASURY BOARD (TB) SUBMISSIONS

- .1 Projects that are subject to TB approval are normally submitted twice.
 - .1 The first submission is for Preliminary Project Approval (PPA) at Pre-Design or Schematic Design stage of a project and must include an Indicative Estimate for the cost of the work.
 - .2 The second submission is for Effective Project Approval (EPA) at the completion of Design Development or Pre-Tender stage of a project and must include a Substantive Estimate for the cost of the work.
- .2 The Treasury Board estimate definitions are:
 - .1 Indicative Estimate;
 - .1 A low quality, order of magnitude estimate that is not sufficiently accurate to warrant TB approval as a Cost Objective.
 - .2 Substantive Estimate;
 - .1 An estimate which is of sufficiently high quality and reliability as to warrant TB approval as a Cost Objective for the project phase under consideration.
 - .2 It is based on detailed systems and component design, taking into account all project objectives and deliverables.
- .3 TB Terminology:
 - .1 Constant dollar estimate;
 - .1 This is an estimate expressed in terms of the dollars of a particular base fiscal year.
 - .1 It includes no provision for inflation.
 - .2 Cash flows over a number of fiscal years may also be expressed in constant dollars of the base year including no allowance for inflation in the calculation of costs.
 - .2 Budget-year (BY) dollar estimate:
 - .1 Budget year dollars is also be referred to as Nominal dollars or Current dollars.
 - .1 This is an estimate based on costs arising in each FY of the project schedule.
 - .2 It is escalated to account for inflation and other economic factors affecting the period covered by the estimate.
 - .2 The costs and benefits across all periods should initially be tabulated in budget year dollars for three following reasons:



- .1 First; this is the form in which financial data are usually available,
- .2 Second; adjustments, such as tax adjustments, are accurately and easily made in budget year dollars,
- .3 Finally; working in budget-year dollar enables the analyst to construct a realistic picture over time, taking into account changes in relative prices.

2.2.3 CLASSES OF ESTIMATES

- .1 PWGSC applies a detailed, four level, classification using the terms Class A, B, C and D.
- .2 Apply these estimate classifications at the project stages as defined in the TOR.
- .3 For projects required to be submitted to TB for approval:
 - .1 An Indicative Estimate shall be at least a class 'D'; and
 - .2 A Substantive Estimate shall be at least a class 'B'.

2.2.4 CLASS 'D' (INDICATIVE) ESTIMATE

- .1 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 of all the options being considered.
- .2 Submit Class 'D' cost estimates in elemental analysis format, in accordance with the 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.
- .3 Include a summary in the cost estimate, plus full back up, showing items of work, quantities, unit prices, allowances and assumptions.
- .4 The level of accuracy of a class D cost estimate shall be such that no more than a 20% design contingency allowance is required.

2.2.5 CLASS 'C' ESTIMATE

- .1 Based on a comprehensive list of requirements and assumptions, including a full description of the preferred Schematic Design option, construction experience, design experience and market conditions, this estimate must be sufficient for making the correct investment decision.
- .2 Submit Class 'C' cost estimates in elemental analysis format, in accordance with the 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.
- .3 Include a summary in the cost estimate, plus full back up, showing items of work, quantities, unit prices, allowances and assumptions.
- .4 The level of accuracy of a class C cost estimate shall be such that no more than a 15% design contingency allowance is required.

2.2.6 CLASS 'B' (SUBSTANTIVE) ESTIMATE

- .1 Based on design development drawings and outline specifications, which include the preliminary 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.
- .2 Submit Class 'B' cost estimates in both elemental analysis format and trade divisional format, in accordance with the latest edition issued by the Canadian Institute of Quantity Surveyors.
- .3 Include a summary in the cost estimate, plus full back up, showing items of work, quantities, unit prices, allowances and assumptions.
- .4 The level of accuracy of a class 'B' cost estimate shall be such that no more than a 10% design contingency allowance is required.

2.2.7 CLASS 'A' (PRE-TENDER) ESTIMATE



- .1 Based on completed construction drawings and specifications prepared prior to calling competitive tenders, this estimate must be sufficient to allow a detailed reconciliation and/or negotiation with any contractor's tender.
- .2 Submit Class 'A' cost estimates in both elemental analysis format and trade divisional format, in accordance with the latest edition issued by the Canadian Institute of Quantity Surveyors.
- .3 Include a summary in the cost estimate, plus full back up, showing items of work, quantities, unit prices, allowances and assumptions.
- .4 The level of accuracy of a class 'A' cost estimate shall be such that no more than a 5% design contingency allowance is required.

2.3 SCHEDULE MANAGEMENT

2.3.1 SCHEDULER

- .1 The Scheduler shall provide a Project Planning and Control Schedule for the project, for the purpose of Planning, Scheduling, Progress Monitoring (Time Management), during all the design phases up to the construction procurement phase.
- .2 A qualified Scheduler, with experience commensurate with the complexity of the project, is required to develop and monitor the project schedule during the design process.
- .3 The Scheduler shall adhere to good industry practices for schedule development and maintenance, as recognized by the Project Management Institute (PMI).
- .4 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 either of these programs, using one of the many commercially available software packages.

2.3.2 PROJECT SCHEDULE

- .1 A Detailed Project Schedule is a schedule developed in reasonable detail to ensure adequate Time Management planning and control of the project.
- .2 Project Schedules are used as a guide for the planning, design and implementation phases 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).
- .3 When building a Project Schedule, the Consultant must consider:
 - .1 The level of detail required for control and reporting;
 - .2 The reporting cycle shall be monthly, unless otherwise identified in the Terms of Reference;
 - .3 What is required for reporting in the Project Teams Communications Plan; and
 - .4 The nomenclature and coding structure for naming of scheduled activities, which must be submitted to the Project Manager for acceptance.

2.3.3 MILESTONES

- .1 The Major Milestones are standard Deliverables and Control Points within NPMS and are required in all schedule development.
- .2 These Milestones will be used in Time Management Reporting within PWGSC as well as used for monitoring project progress using Variance Analysis.
- .3 Milestones may also be external constraints such as the completion of an activity, exterior to the project, affecting the project.

2.3.4 ACTIVITIES

- .1 All activities will need to be developed based on:
 - .1 Project Objectives;
 - .2 Project Scope;



- .3 Milestones;
- .4 Meetings with the project team; and
- .5 The scheduler's full understanding of the project and its processes.
- .2 Subdivide the elements down into smaller more manageable pieces that organize and define the total scope of work in levels that can be scheduled, monitored and controlled.
 - .1 This process will develop the Activity List for the project.
- .3 Each activity will describe the work to be performed using a verb and noun combination (i.e. Review Design Development Report).
- .4 These elements will become activities, interdependently linked in the Project Schedule.

2.3.5 SCHEDULE REVIEW AND APPROVAL

- .1 Once the scheduler has identified and properly coded all the activities to the acceptance of the Project Manager, the activities are then sorted into a logical order and appropriate duration are applied to complete the schedule.
- .2 The scheduler, together with the Project Team, can then analyze the schedule to see if the milestone dates meet the project timelines and then adjust the schedule accordingly by modifying durations or changing logic.
- .3 When the schedule has been satisfactorily prepared, the scheduler can present the detailed schedule back to the Project Team for acceptance and application as the project baseline.
- .4 There may be several iterations before the schedule meets with the Project Teams agreement and the critical project timelines.
- .5 The final agreed version must be copied and saved as the baseline to monitor variances during the design process.

2.3.6 SCHEDULE MONITORING AND CONTROL

- .1 Once Baseline, the schedule can be better monitored, controlled and reports can be produced.
- .2 Monitoring is performed by, comparing the baseline activities completed 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.
- .3 There will be several schedules generated from the analysis of the baseline schedule as outlined in the Required Services Sections of the TOR.
- .4 Each updated schedule reflects the progress of each activity to date, any logic changes, both historic and planned, projections of progress and completion indicating the actual start and finish dates of all activities being monitored.
- .5 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 in accordance with the TOR.
- .6 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.
 - .1 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.



- .7 At each submission or deliverable stage, provide an updated schedule and exception report.

2.4 RISK MANAGEMENT

2.4.1 CONTEXT

- .1 The Departmental Representative prepares the Risk Management Plan.
- .2 The Departmental Representative may ask for assistance from the Consultant Team for identification of risk items and factors arising from the technical requirements of the project.

2.5 WASTE MANAGEMENT

2.5.1 PROTOCOL

- .1 The Construction, Renovation, and Demolition (CRD) Non-hazardous Solid Waste Management Protocol to which PWGSC is bound, provides direction on the undertaking of non-hazardous solid waste management actions on projects.
 - .1 The protocol is designed to meet the federal requirements, provincial/territorial policies and the objectives of the PWGSC Sustainable Development Strategy (SDS).
- .2 The contractor must implement a solid waste management program.
- .3 Contractors must be instructed to plan for extra project time when implementing CRD waste diversion initiatives.
 - .1 Added labour costs can be recuperated and waste management costs savings can be achieved through reduced tipping fees, avoided haulage costs, and the sale of reusable and recyclable materials.

2.5.2 CONSULTANT RESPONSIBILITIES

- .1 Research and investigate hazardous waste disposal strategies in context of the project and make recommendations.
- .2 Include in the contract documents, a requirement for the contractor to develop a waste reduction and management plan during the construction of this project.
- .3 Identify, on the site plan where large (garbage) bins shall be stored, as well as easy disposal truck access/exit to/from same, to assist the Contractor in reducing waste or re-cycling of materials on and off site.

2.6 TECHNICAL REPORTS

2.6.1 PURPOSE

- .1 This section provides direction and standards for the preparation of reports delivered to PWGSC during all the various stages of project delivery and for specific services such as investigations, studies, analysis, strategies, audits, surveys, programs, plans, etc.
- .2 Technical Reports are official government documents, which are typically used to support an application for approval or to obtain authorization or acceptance and as such they must:
 - .1 Be complete, clear and professional in appearance and organization, with proper reference to related parts and contents in the report;
 - .2 Clearly outline the intent, objectives, process, results and recommendations;
 - .3 Present the flow of information and conclusions in a logical, easy to follow sequence;
 - .4 Be in written narrative, graphic, model (traditional and / or computer generated), and photographic format, which can be web enabled;
 - .5 Ensure that all pages are numbered in sequence; and
 - .6 Be printed double-sided, if hard copies are produced.

2.6.2 STANDARDS FOR PWGSC TECHNICAL REPORTS

- .1 Standard practice for the organization of technical reports requires:



- .1 A cover page, clearly indicating the nature of the report, the date, the PWGSC reference number and who prepared the report;
- .2 A Table of Contents;
- .3 An Executive Summary;
- .4 The body of the report is to be structured such that the reader can easily review the document and locate, respond to and /or reference related information contained elsewhere in the report;
- .5 Appendices used for lengthy segments of the report, supplementary and supporting information and / or for separate related documents.
- .2 The report content must:
 - .1 Ensure that the executive summary is a true condensed version of the report following the identical structure, including only key points and results / recommendations requiring review and / or approval;
 - .2 Use a proper numbering system (preferably legal numbering), for ease of reference and cross-reference;
 - .1 The use of 'bullets' is to be avoided.
 - .3 Use proper grammar, including using complete sentences, in order to ensure clarity, avoid ambiguity and facilitate easy translation into French, if required;
 - .1 The use of undefined technical terms, industry jargon and cryptic phrases are to be avoided.
 - .4 Be written as efficiently as possible, with only essential information included in the body of the report and supporting information in an appendix if needed.

2.6.3 PRE-DESIGN REPORT CONTENT

- .1 Administrative aspects to be included (but not limited to) are:
 - .1 Quality management process for the consultant team;
 - .2 Confirmation that all necessary pre-design documentation required for this project is available and confirmation that the information is still current and up-to-date.
- .2 Regulatory Analysis aspects to be included (but not limited to) are:
 - .1 Preliminary summary of regulatory and statutory requirements, authorities having jurisdiction, and codes, regulations, and standards.
- .3 Program Analysis aspects to be included (but not limited to) are a review and analysis of:
 - .1 Functional program, User Department reports and studies, Space data sheets, Work stations, offices, common areas and commercial space requirements, Laboratories, Data Room requirements, etc.
- .4 Site Analysis aspects to be included (but not limited to) are a review and analysis of:
 - .1 Site features and restrictions (i.e. landscape features, topographical feature, climatic influences, setback requirements, easements, existing buildings, and / or structures.);
 - .2 Subsurface, geotechnical analysis of soils;
 - .3 Municipal infrastructure, subsurface and above grade services, including capacities and limitations (i.e. storm water drainage, fire protection, domestic water, power, telecommunications,);
 - .4 Historical/archaeological features, previous uses;
 - .5 Environmental features including sustainable design opportunities.
- .5 Building Analysis aspects to be included (but not limited to) are a review and analysis of:
 - .1 Substructure, including foundations and basement(s), parking;
 - .2 Shell, including superstructure, interior structural systems, exterior enclosure, roofing;
 - .3 Interiors, including interior construction, stairs, interior finishes;



- .4 Services, including conveying (elevators, escalators), plumbing, HVAC, fire protection, electrical, telecommunications, building automation;
- .5 Equipment and furnishings;
- .6 Special construction and demolition, materials abatement.
- .6 Budget, Schedule, and Risk Analysis aspects to be included (but not limited to) are:
 - .1 Updated Class 'D' estimate and revised schedule;
 - .2 Analysis of risk implications and preliminary mitigation strategies.
- .7 Sustainable Development Strategies
 - .1 Proposed policy for the project to minimize environmental impacts consistent with the project objectives and economic constraints, including:
 - .1 Recommendations on Sustainable Development Design standards to be applied to the project;
 - .2 Achievable levels for LEED® or Green Globes certification;
 - .3 Preliminary sustainability targets for water and energy use, waste reduction etc.
 - .2 Environmental impacts and application of the Canadian Environmental Assessment (CEA) Act.

2.6.4 SCHEMATIC DESIGN REPORT CONTENT

- .1 Standard practice for the organization of technical reports requires:
 - .1 Executive Summary;
 - .2 Regulatory Analysis;
 - .1 Preliminary building code analysis,
 - .2 Preliminary zoning analysis,
 - .3 Fire and life safety strategy, and
 - .4 Preliminary standards analysis.
 - .3 Program Analysis;
 - .1 Updated Functional Program requirements,
 - .2 Preliminary horizontal and vertical zoning diagrams,
 - .3 Spatial relationship diagrams,
 - .4 Facilities services strategy,
 - .5 Basic area calculations and analyses.
 - .4 Site Analysis;
 - .1 Drawings, renderings and supporting 3D visualization illustrating the building and site,
 - .2 Site features and restrictions (i.e. landscape features, topographical features, climatic influences, setback requirements, easements, existing buildings and/or structures etc.),
 - .3 Subsurface features,
 - .4 Municipal infrastructure, subsurface and above grade services, including capacities and limitations (i.e. storm water drainage, fire protection, domestic water, power, telecommunications etc.),
 - .5 Historical site features,
 - .6 Archaeological features,
 - .7 Environmental features including sustainable design strategies (i.e. storm water management, landscaping etc.).
- .2 Building Analysis and Design Options;
 - .1 Architectural,



- .1 Prepare a site plan indicating relationships, landscape concept, building outlines, main accesses, roadways, vehicular and pedestrian traffic patterns,
- .2 Provide building plans, showing relative disposition of main accommodation areas, circulation patterns, floors, horizontal and vertical space relationships, mechanical / electrical shafts,
- .3 Include elevations, sections and typical wall details for the building envelope,
- .4 Provide perspectives and / or 3D visualization diagrams, and
- .5 Calculate the gross building area and provide a net area summary of all accommodation areas required.
- .2 Civil,
 - .1 Describe the overall impact on the site systems infrastructure,
 - .2 Verify of all site services information,
 - .3 Provide a site plan showing the existing building, proposed site services, building service connections, site drainage, roads, parking and sidewalks, and
 - .4 Include a preliminary analysis of the impact on existing systems, where contributing to existing sewer lines.
- .3 Structural / Seismic,
 - .1 Describe the potential impact on the existing building structure and include any required structural modifications and /or upgrades,
 - .2 Provide a general description of structures, including systems considered and benefits/disadvantages,
 - .3 Include design loads for all load cases, and
 - .4 Prepare concept drawings of structural systems proposed, including typical floor plans, foundations, lateral systems and explanatory sketches.
- .4 Mechanical Engineering,
 - .1 Provide narratives describing the following,
 - .1 Overview,
 - .2 Code & Standards Considerations & Concerns,
 - .3 Potential Energy Conservation Measures,
 - .4 Description of three distinct mechanical options including,
 - .1 Narratives of each option,
 - .2 Discussion of advantages and disadvantages of each,
 - .3 System schematics sufficient to describe each option,
 - .4 Preliminary energy analysis for each,
 - .5 Discussion of recommendations.
- .5 Electrical Engineering,
 - .1 Provide an electrical design synopsis, describing the electrical work in sufficient detail for assessment and acceptance by the Departmental Representative,
 - .1 Include feasibility and economic studies of proposed systems complete with cost figures and loads, and in accordance with Sustainable Development requirements.
 - .2 Prepare a site plan showing the location of electrical and telecommunication service entrances.
 - .3 Prepare floor plans indicating locations and size of,
 - .1 Major electrical equipment and distribution centres,
 - .2 Telecommunications rooms, closets and major conduits,



- .4 Provide Normal and Emergency power distribution details, including a diagram showing the distribution up to distribution centres on each floor,
- .5 Indicate typical lighting concepts for the interior and exterior environments,
- .6 Indicate typical ceiling (or floor) distribution systems for lighting, power and telecommunications, and
- .7 Provide concept descriptions of Fire alarm and Security systems.
- .3 Commissioning;
 - .1 Provide preliminary commissioning plan.
- .4 Cost Management;
- .5 Schedule Management;
- .6 Furniture / Equipment;
 - .1 Prepare a Furniture Recommendation Report based on the Functional Program and on parameters developed in conjunction with the Departmental Representative and the Client / User. Report to include an examination of the following;
 - .1 Procurement process and requirements,
 - .2 Furniture type and layout,
 - .3 Panel screen height,
 - .4 Power requirements,
 - .5 Finishes.
 - .2 Recommendations are to take into consideration current inventory of furniture and reflect the client's vision, functional requirements, proposed planning alternatives, space allocation and project budget.
 - .3 Prepare a Class 'C' cost estimate for refurbishment of existing furniture and / or the purchase of new furniture and equipment.
 - .4 Document scheduling requirements for refurbishment of existing furniture and / or the procurement of new furniture and equipment.
- .7 Budget;
 - .1 Class 'C' Estimates for each option.
- .8 Schedule;
 - .1 Milestone project schedule including allowances for reviews and approvals for each stage of the project life cycle.
- .9 Risk Analysis;
 - .1 Report on any deviations that may affect cost or schedule and recommend corrective measures.
- .10 Sustainable Development Strategies;
 - .1 Indicate how each option can meet the sustainability targets, and
 - .2 Provide energy simulations of the proposed design options, including estimated annual energy cost as predicted by using current energy cost for the appropriate area.
- .11 Response to PWGSC Quality Assurance Report ; and
- .12 Project Log tracking all approved major decisions including those affecting changes to project scope, budget and schedule.

2.6.5 DESIGN DEVELOPMENT REPORT CONTENT

- .1 Executive Summary
- .2 Regulatory Analysis
 - .1 Preliminary building code analysis;



- .2 Preliminary zoning analysis;
- .3 Fire and life safety strategy;
- .4 Preliminary standards analysis
- .3 Program Analysis
 - .1 Updated Functional Program requirements
 - .2 Preliminary horizontal and vertical zoning diagrams;
 - .3 Facilities services strategy;
 - .4 Basic area calculations and analyses;
- .4 Site Analysis
 - .1 Drawings, renderings and supporting 3D visualization illustrating the building and site,
 - .2 Site features and restrictions (i.e. landscape features, topographical features, climatic influences, setback requirements, easements, existing buildings and/or structures etc.);
 - .3 Subsurface features;
 - .4 Municipal infrastructure, subsurface and above grade services, including capacities and limitations (i.e. storm water drainage, fire protection, domestic water, power, telecommunications etc.);
 - .5 Historical site features;
 - .6 Archaeological features;
 - .7 Environmental features including sustainable design strategies (i.e. storm water management, landscaping etc.);
- .5 Building Analysis and Design Options
 - .1 Architectural
 - .1 Prepare a site plan showing the building and Infrastructure items including the following:
 - .1 Pedestrian, vehicular, security, delivery service access,
 - .2 Provide floor plans of each level (including the roof) showing all accommodation required, including all necessary circulation areas, stairs, elevators, and ancillary spaces anticipated for service use. Indicate building grids, modules, and key dimensions.
 - .3 Provide reflected ceiling plans of ceilings with special features.
 - .4 Show elevations of all exterior building facades indicating all doors and windows, accurately sized and projected from the floor plans and sections.
 - .1 Clearly indicate levels for grade, all floors, ceilings, roof and penthouse levels.
 - .5 Develop cross-sections through the building to show floor levels, room heights, inner corridor elevations, etc.
 - .6 Identify primary architectural materials proposed for the exterior and interior of the building, including choice of finishes.
 - .7 Provide plans and preliminary details for millwork, built-in furniture and lab casework.
 - .8 Provide detail sections of walls with special design features requiring illustration and explanation at this stage, such as firewalls, acoustical barriers, security partitions, isolation or separation of laboratory spaces, etc.
 - .9 Special construction and demolition, including heritage conservation and rehabilitation requirements, hazardous materials abatement,
 - .10 Provide sections and details for any spaces requiring acoustic security.
 - .1 Include STC ratings for doors, transfer ducts and other assemblies
 - .2 Civil



- .1 Further refine site plans showing site services and building service connections referenced to proposed building outlines, site access roads and sidewalks, including existing and proposed grades and drainage improvements.
- .2 Indicate locations of manholes (complete with invert elevations), valves, and fire hydrant locations.
- .3 Identify proposed pipe sizes and slopes, where applicable, and include pipe invert elevations at building foundation.
- .4 Identify, by means of Design Summary Sheets, pipe capacity and estimated flows for storm and sanitary sewers. Where contributing to an existing sewer, include analysis of impact on existing systems.
- .5 Provide Hydraulic Analysis of any relevant alterations to existing water distribution system in the vicinity of the proposed building to confirm anticipated maximum available fire flow. Calculate and compare site flows to building site fire flow.
- .6 Provide typical trench and related details, including profiles of below grade services.
- .3 Structural
 - .1 Provide drawings indicating modifications to existing structure and new structural systems, structural materials, cladding details, fireproofing methods and other significant or unusual details.
 - .2 Indicate all design loads, e.g. dead and live loads on all plans with atypical loads marked. Live loads to include localized seismic, wind and snow.
 - .3 Provide brief design calculations including outputs from computerized analysis.
- .4 Mechanical
 - .1 Provide narratives describing the following
 - .1 Overview
 - .2 Code & Standards Analysis
 - .3 Site Services & Utilities
 - .4 Fire Protection Systems
 - .5 Plumbing Systems
 - .6 Heating Systems
 - .7 Cooling Systems
 - .8 Ventilation Systems
 - .9 Exhaust Systems
 - .10 Insulation
 - .11 Humidification Systems
 - .12 Acoustic and sound control measures
 - .13 Controls
 - .14 Energy Conservation Measures & Energy Analysis & Report
 - .2 Provide system schematics for heating water, chilled water, ventilation and plumbing systems.
 - .3 Provide catalogue cut sheets of representative equipment for each type of component to be used on the project.
 - .4 Provide preliminary layout drawings showing locations of all major components.
 - .5 Provide brief design calculations including outputs from computerized analysis.
- .5 Electrical
 - .1 Update the electrical design synopsis for the selected option. Provide data on the total connected load, the maximum demand and diversity factors, and the sizing of the emergency load.



- .2 Elaborate on proposed emergency power scheme and provide preliminary installation details for any emergency generator installation.
 - .3 Indicate metering locations on distribution diagram.
 - .4 Provide typical lighting, power and telecommunication system details for all workspaces.
 - .5 Include lighting design and control schemes for typical lighting arrangements.
 - .6 Elaborate on exterior lighting scheme. Provide typical fixture concepts.
 - .7 Provide a fire alarm riser diagram.
 - .8 Indicate security system major conduit requirements on floor plans.
 - .9 Provide typical security system details (conduit and boxes) that will be included on construction drawings.
 - .10 Provide brief design calculations including outputs from computerized analysis.
- .6 Sustainable Development Strategies:
- .1 Indicate how each option can meet the sustainability targets
 - .2 Provide energy simulations of the proposed design options, including estimated annual energy cost as predicted by using current energy cost for the appropriate area,
- .7 Response to PWGSC Quality Assurance Report

2.7 CODES, ACTS, STANDARDS, REGULATIONS

2.7.1 GENERAL

- .1 The Codes, Acts, Standards and Guidelines listed in the following articles, may apply to this project. The Consultant must identify and analyse the applicable documents in the Code Analysis.
- .2 In all cases the most stringent Code, standard and guideline shall apply.

2.7.2 PWGSC DOCUMENTS AVAILABLE FROM PWGSC PROJECT MANAGER:

- .1 PWGSC Fit-Up Standards: Technical Reference Manual;
- .2 Public Works and Government Services MD Standards – Departmental Representative to provide on request;
 - .1 MD 15000; Environmental Standards for Office Accommodation,
 - .2 MD 15116-2006; Computer Room Air conditioning Systems,
 - .3 MD-15126; Laboratory HVAC (currently in draft form),
 - .4 MD 15128; Laboratory Fume Hoods: Guidelines for owners, design professionals and maintenance personnel – 2008,
 - .5 MD 15129; Guidelines for Perchloric Acid fumehoods and their exhaust systems – 2006,
 - .6 MD 15161; Control of Legionella in Mechanical Systems - 2006,
 - .7 MD 250005; Energy Monitoring and Control Systems Design Guidelines - 2009,
- .3 PWGSC Best Practice; Prescribing indoor humidity levels for Federal Buildings - 2006,
- .4 Public Works and Government Services Commissioning Standards and Guidelines,
- .5 PWGSC Commissioning Manual CP-I version 2006.

2.7.3 CODES AND REGULATIONS:

- .1 The NRC National Building Code of Canada 2010;
- .2 The NRC National Fire Code of Canada, 2010;
- .3 The NRC National Plumbing Code of Canada 2010;
- .4 The NRC Model National Energy Code for Buildings 2011;
- .5 CSA C22.1-09, Canadian Electrical Code Part I Safety Standard for Electrical Installations and CE Code Handbook. Amendments for Provinces;



- .6 Canadian Code for Preferred Packaging;
- .7 National Electrical Manufacturers Association (NEMA);
- .8 Electrical and Electronic Manufacturers' Association of Canada (EEMAC);
- .9 American National Standards Institute/Institute of Electrical and Electronics Engineers (ANSI/IEEE) - ANSI/IEEE C62.41-1991, Surge Voltages in Low-Voltage AC Power Circuits;
- .10 American Society for Testing and Materials (ASTM);
- .11 ASTM F 1137-00(2006), Specification for Phosphate/Oil and Phosphate/Organic Corrosion Protective Coatings for Fasteners;
- .12 The Canada Labour Code;
- .13 <http://laws.justice.gc.ca/en/L-2/>
- .14 The Canada Occupational Health and Safety Regulations;
- .15 <http://laws.justice.gc.ca/eng/SOR-86-304/index.html>
- .16 All other Territorial and Municipal Acts, Codes, By-laws and regulations appropriate to the area of concern.

2.7.4 STANDARDS AND GUIDELINES PRODUCED BY THE GOVERNMENT OF CANADA:

- .1 Standards and Directives of the Treasury Board (TB):
 - .1 <http://www.tbs-sct.gc.ca/pol/index-eng.aspx?tree=standard>
 - .2 <http://www.tbs-sct.gc.ca/pol/index-eng.aspx?tree=directive>
 - .3 And including;
 - .1 Accessibility Standard for Real Property,
 - .1 <http://www.tbs-sct.gc.ca/pol/doc-eng.aspx?id=12044>
 - .2 Fire Protection Standard.
 - .1 <http://www.tbs-sct.gc.ca/pol/doc-eng.aspx?id=17316>
- .2 Labour Canada's, Fire Commissioner of Canada Standards;
 - .1 http://www.hrsdc.gc.ca/eng/labour/fire_protection/policies_standards/commissioner/index.shtml.
 - .2 And including,
 - .1 FC-301 Standard for Construction Operations, June 1982,
 - .2 FC-302 Standard for Welding and Cutting, June 1982,
 - .3 FC-311 Standard for Record Storage, May 1979.
 - .4 FC-403 Fire Protection Standard for sprinkler Systems, November 1994
- .3 The Standards and Guidelines for the Conservation of Historic Places in Canada
 - .1 www.historicplaces.ca;
- .4 Labour Canada's, Technical Documents;
 - .1 http://www.hrsdc.gc.ca/eng/labour/fire_protection/policies_standards/guidelines/index.shtml
 - .2 And Including,
 - .1 Fire Protection for Information Technology Facilities and Equipment.
- .5 Canadian Food Inspection Agency's Containment Standard for Facilities Handling Plant Pests.
- .6 Public Health Agency of Canada's Laboratory Biosafety Guidelines, 3rd Edition,
- .7 Canadian Council of Animal Care's Guidelines on: Laboratory Animal Facilities – Characteristics, Design and Development.

2.7.5 HEALTH CANADA STANDARDS AND GUIDELINES:

- .1 Guidelines for Canadian Drinking Water Quality – Sixth Edition – 1996;
- .2 Guidelines for Canadian Drinking Water Quality – Summary Table – Dec 2010;



- .3 Guidance for Providing Safe Drinking Water in Areas Of Federal Jurisdiction – Version I – 2005;
- .4 The Canadian Council of Ministers of the Environment (CCME) ;
- .5 Environmental Code of Practice for Aboveground and Underground Storage Tank Systems Containing Petroleum and Allied Petroleum Products (CCME, 2003);
- .6 Canada – Wide Strategy for the Management of municipal Waste Water Effluent;
- .7 The Canadian Environmental Protection Act (CEPA, 1999);
- .8 The Storage Tank Systems for Petroleum Products and Allied Petroleum Products Regulations, published in Canada Gazette Part II on June 12, 2008 (Registration SOR/2008-197).

2.7.6 STANDARDS AND GUIDELINES:

- .1 Air Conditioning and Refrigeration Institute (ARI);
- .2 American Conference of Governmental Industrial Hygienists (ACGIH, Industrial Ventilation Handbook);
- .3 Air Diffusion Council (ADC);
- .4 Air Movement and Control Association (AMCA);
- .5 American Association of State Highway and Transportation Officials (AASHTO) Standards
- .6 American National Standards Institute (ANSI);
- .7 ANSI/AIHA Z9.5, Laboratory Ventilation;
- .8 .1 ANSI/NEMA C82.1-04, Electric Lamp Ballasts-Line Frequency Fluorescent Lamp Ballast;
- .9 .2 ANSI/NEMA C82.4-02, Ballasts for High-Intensity-Discharge and Low-Pressure Sodium Lamps;
- .10 ANSI/TIA/EIA-606- Administration Standard for the Telecommunications Infrastructure of Commercial Buildings;
- .11 ANSI Z358.1, Emergency Eyewash and Shower Equipment;
- .12 American Society of Heating, Refrigerating, and Air Conditioning Engineers (ASHRAE), including but not limited to;
 - .1 ASHRAE Laboratory Design Guide,
 - .2 ASHRAE Standards and Guidelines,
 - .3 ASHRAE Applications Handbook – 2007,
 - .4 ASHRAE HVAC Systems and Equipment Handbook – 2008,
 - .5 ASHRAE Fundamentals Handbook – 2009,
 - .6 ASHRAE Refrigeration Handbook – 2010,
 - .7 ASHRAE 52.2 Method of Testing General Ventilation Air-Cleaning Devices for Removal Efficiency by Particle Size – 2007,
 - .8 ANSI/ASHRAE 55, Thermal Environmental Conditions for Human Occupancy – 2004,
 - .9 ANSI/ASHRAE 62.1, Ventilation for Acceptable Indoor Air Quality – 2010,
 - .10 ASHRAE 90.1, Energy Efficient Design of New Buildings – 2010,
 - .11 ASHRAE 105: Standard Method of Measuring and Expressing Building Energy Performance,
 - .12 ASHRAE 110, Method of Testing Performance of Laboratory Fume Hoods,
 - .13 ASHRAE 111; Practices for Measurement, Testing, Adjusting and Balancing of Building HVAC&R Systems,
 - .14 ASHRAE 114; Energy Management Control Systems Instrumentation, and
 - .15 ASHRAE 135; BACnet: A Data Communication Protocol for Building Automation and Control Networks.
- .13 Asphalt Institute Standards for Hot Mix;



- .14 American Society of Mechanical Engineers (ASME);
- .15 American Society for Testing and Materials (ASTM);
- .16 American Water Works Association (AWWA) Standards;
- .17 American Welding Society (AWS);
- .18 Associated Air Balance Council (AABC);
- .19 Canadian Standards Association;
- .20 CSA A23.3-04 (2010) Design of Concrete Structures;
- .21 CSA B51-09 Boiler, pressure vessel and pressure piping Code;
- .22 CSA B52-05 Mechanical Refrigeration Code;
- .23 CSA B64-01 Backflow Preventers and Vacuum Breakers;
- .24 CSA B139-09 Installation Code for Oil Burning Equipment;
- .25 CSA B149.1-10 Natural Gas and Propane Installation Code;
- .26 CSA B651-04 Accessible Design for the Built Environment;
- .27 CSA C22.2 No. 41-07 Grounding and Bonding Equipment;
- .28 CSA S16-09 Design of Steel Structures;
- .29 CSA Z204-1994 Guideline for Managing Indoor Air Quality in Office Buildings;
- .30 CSA Z320-11 Building Commissioning Standard & Check Sheets;
- .31 CSA Z316.5-94, Fume Hoods and Associated Exhaust Systems;
- .32 CAN/CSA-23.1-04 and CAN/CSA-A23.2-04 Concrete materials and methods of concrete construction; and Methods of test and standard practice for concrete CAN/CSA-C22.2 No. 214-94 "Communications Cables";
- .33 CAN/CSA-C22.3 No.3-[98(R2007)], Electrical Co-ordination;
- .34 CAN/CSA-B651-04(R2010), Accessible Design for the Built Environment;
- .35 CAN3 C235-[83(R2010)], Preferred Voltage Levels for AC Systems, 0 to 50,000 V;
- .36 CAN/CSA-T528-93, "Design Guidelines for Administration of Telecommunications Infrastructure in Commercial Buildings", Canadian Standards Association;
- .37 CAN/ULC – S524-06 Standard for the Installation of Fire Alarm Systems;
- .38 CAN/ULC – S537-04 Fire Alarm System Verification Report;
- .39 CAN/ULC – S102-07 Standard Method of Test for Surface Burning Characteristics of Building Materials and Assemblies;
- .40 CAN/ULC – S102.2-07 Method of Test for Surface Burning Characteristics of Flooring, Floor Coverings, and Miscellaneous Materials and Assemblies
CAN/ULC S112-M90 (R2001) Standard Methods of Fire Test of Fire-Damper Assemblies;
- .41 CAN/ULC S115-05 Standard Method of Fire Tests of Fire stop Systems;
- .42 International Mechanical Code – Latest Version;
- .43 Institute of Boiler and Radiation, Hydronic Institute (IBR);
- .44 Manufacturers Standardization Society of Valve and Fitting Industry (MSS);
- .45 National Fire Protection Association (NFPA), including;
 - .1 NFPA 10; Standard for Portable Fire Extinguishers – 2010,
 - .2 NFPA 13; Standard for Installation of Sprinkler Systems – 2010,
 - .3 NFPA 14; Standard for Installation of Standpipe and Hose Systems – 2010,
 - .4 NFPA 24: Standard for the Installation of Private Fire Service Mains and Their Appurtenances-2010,
 - .5 NFPA 30; Flammable and Combustible Liquids Code,
 - .6 NFPA 45; Standard on Fire Protection for Laboratories Using Chemicals,
 - .7 NFPA 1142: Standard on Water Supplies for Suburban and Rural Fire Fighting-2007.



- .46 SEFA I.2, Scientific Equipment & Furniture Association;
- .47 Sheet Metal and Air Conditioning Contractors National Association (SMACNA);
- .48 Transportation Association of Canada (TAC) Guide for Canadian Roads;
- .49 Manual of Uniform Traffic Control Devices (MUTCD);
- .50 Telecommunications Industry Association (TIA);
 - .1 Commercial Building Telecommunications Cabling Standard TIA/EIA-568,
 - .1 Part 1: General Requirements, TIA/EIA-568-B.1,
 - .2 Part 2: Balanced Twisted Pair Cabling Components, TIA/EIA-568-B.2,
 - .3 Addendum 1 - Transmission Performance Specification for 4-pair 100 Ohm Category 6 Cabling, TIA/EIA-568-B.2-1,
 - .4 Optical Fibre Cabling Components Standards, TIA/EIA-568-B.3.
 - .2 ANSI/TIA/EIA-569-A Commercial Building Standards for Telecommunications pathways and spaces,
 - .3 Pathways and Spaces, ANSI/TIA/EIA-569-B,
 - .4 Telecommunications Infrastructure Standard for Data centers TIA-942,
 - .5 J-STD-607-A Commercial Building Grounding and - Bonding Requirements for Telecommunications.
- .51 Underwriters' Laboratories of Canada (ULC);
- .52 ULC/CSA Approval is required for all electrical and mechanical equipment.

2.7.7 STANDARDS AND GUIDELINES FOR TRANSPORTATION

- .1 Canadian Highway Bridge Design Code
- .2 Transportation Association of Canada - Manuals, Guides and Handbooks.

2.8 COMMISSIONING PROCESS

2.8.1 GENERAL

- .1 This section summarizes the PWGSC commissioning process, the requirements and associated roles and responsibilities as they relate to the various phases in the delivery of a project.
- .2 It is to be used as a guide in further developing the commissioning plan, specification and related documents for a project.
- .3 Commissioning is not a replacement for good design and construction practices.
 - .1 It requires coordinated efforts on the part of all parties involved in the Project.
- .4 The Commissioning overlaps the design phase through construction and into the operation phase.
- .5 The PWGSC Commissioning Manual CP.1 4th edition, November 2006, is available for free download at the following site:
 - .1 <http://www.tpsgc-pwgsc.gc.ca/biens-property/sngp-npms/bi-rp/tech/misceenservice-commissioning/manuel-manual-eng.html>
- .6 The PWGSC Commission Manual CP.2 – Commissioning Glossary is available for free download at the following site:
 - .1 <http://www.tpsgc-pwgsc.gc.ca/biens-property/sngp-npms/bi-rp/tech/misceenservice-commissioning/manuel-manual-b-eng.html>
- .7 “Commissioning” is a quality assurance process, in which the functional requirements of the Owner/occupant and the operational requirements of facility management are proven to function as intended.



- .8 The “commissioning process” is a planned program of quality management and information transfer that extends through all phases of a project’s development and delivery, up to and including the warranty period.
- .9 The process consists of a series of checks and balances to ensure that the work is designed, installed and proven to operate as intended.
- .10 Commissioning has two main components, functional and operational.
 - .1 The functional component deals with:
 - .1 Security, Health (indoor air quality) and occupant safety;
 - .2 Comfort (temperature, relative humidity, ventilation, air flow patterns, air purity and well being);
 - .3 Cost-effectiveness of design; and
 - .4 Systems and equipment supporting Owner’s functional requirements.
 - .2 The operational component deals with:
 - .1 Operation and Maintenance (O&M) issues; e.g., design review with a particular concern for the operation and maintenance of the systems today and in the future, when repairs are required;
 - .2 Performance evaluation of systems and equipment;
 - .3 Accessibility to O&M Documentation; and
 - .4 Review of the training plan against the current needs now and in the future.

2.8.2 COMMISSIONING PLAN

- .1 The Commissioning Plan will typically be developed by the Contractor through his own Commissioning Agent.
- .2 The Commissioning Plan is the project-specific document and which describes the process for verifying that all built works meet the Investor's requirements within the limits of the working documents.
- .3 It is essential that the Consultant provide specifications that detail requirements for all submittals and testing in each Specification Section in order for the Contractor to properly prepare a complete Commissioning Plan.
- .4 The Commissioning Plan will be reviewed and accepted by the Departmental Representative prior to commencement of construction.
- .5 The Commissioning Plan may require periodic update throughout design.

2.8.3 COMPONENT VERIFICATION

- .1 Component verification sheets (CV) sheets are developed by the Consultant and incorporated in the contract documents to ensure the facility is an operating entity and meets the requirements as described in the Agreement.
- .2 The CV sheets are intended to monitor and track the supply and shop drawing requirements associated with each component. The *Consultant* must verify that the components being installed in the built works are acceptable to their design and the approved shop drawings.
- .3 The commissioning process requires the documentation of all the components installed as part of a system that will have performance verification testing conducted.
- .4 Sample CV sheets for various types of components are to be provided by the Consultant in Div 01.

2.8.4 SYSTEM & INTEGRATED SYSTEM TESTING

- .1 The “performance verification tests” (PVTs) are developed by the Design-BUILDER to ensure the facility is an operating entity and meets the requirements as described in the Agreement.



- .2 The PVTs are intended to demonstrate the functional performance of the systems & integrated system during the various modes of operation, against the design intent. Each test must be uniquely identified and reflected in the contractor's commissioning schedule.
- .3 Once the contract has been awarded the Design-Builder must monitor the sub-contractor's process to help ensure the timely completion of these tests. The Design-Builder must witness each test. The Design-Builder must provide final certification of the test results. After an acceptable review of the test document, the PWGSC Commissioning Specialist will recommend to the Departmental Representative the acceptance or rejection of the test results.
- .4 Sample PVT sheets for various types of system are to be provided by the Consultant in Div 01.

2.8.5 TEST REQUIREMENTS

- .1 Each CV or PVT shall be uniquely named, numbered and categorized by discipline.
- .2 Tests shall define:
 - .1 Test Purpose;
 - .2 System design narrative;
 - .3 Test Prerequisites;
 - .4 Testing Procedures;
 - .5 Test Comments; and
 - .6 Test Sign-off Block.
- .3 System Performance Verifications Tests
 - .1 These tests have prerequisites that are to be completed and approved prior to conducting the tests, which, may include but are not limited to:
 - .1 CV and PVT sheets developed and accepted,
 - .2 Contractor proving start-up and tests,
 - .3 Manufacturers start-ups,
 - .4 Consultant has certified testing, adjusting & balancing (TAB) results, per TAB specification.
 - .1 TAB work must be completed and approved prior to the control system Pts.
 - .5 Associated control device calibrations and physical point verifications are completed and approved.
 - .1 Note, control system end to end checks to be completed and approved prior to the control system PVTs.
 - .6 Other specified deliverables, i.e. factory test reports, O&M submissions, etc.
 - .7 System performance tests associated with the integrated systems under test,
 - .8 Integrated System Performance Verifications,
 - .9 Fire alarm verifications.

2.8.6 COMMISSIONING (EVALUATION) REPORT

- .1 The Commissioning (Evaluation) Report must provide:
 - .1 An executive summary,
 - .2 Completed CV and PVT sheets,
 - .3 A complete assessment of the project,
 - .4 Lessons learned from this project and any necessary recommendations,
 - .5 Variances between the actual and planned levels of performance,
 - .6 An evaluation of the validation and acceptance process and of the commissioning phase.

2.8.7 OVERVIEW OF ROLES AND RESPONSIBILITIES



- .1 The following provides a general overview of the roles, responsibilities and implementation of the commissioning process. The commissioning process is a logical sequence of verifications from component verifications through to system & integrated system, performance verification testing.
- .2 At completion of the commissioning process all results are documented and audited for acceptance.

2.8.8 MAJOR TASKS AND RESPONSIBILITIES

- .1 Schematic Design and Design Development Phase:
 - .1 Consultant;
 - .1 Develop commissioning strategy,
 - .2 Develop preliminary commissioning plan.
 - .2 Construction Documentation Phase:
 - .1 Consultant;
 - .1 Complete the final commissioning plan,
 - .2 Specify the Commissioning requirements in Div 01 and provide sample Commissioning CV and PCT sheets in Div 01 for Bidders purposes,
 - .3 Develop project specific CV and PVT sheets.
- .3 Construction Phase:
 - .1 Consultant;
 - .1 Monitor and report on contract commissioning activities,
 - .2 Finalize development of job specific CV and PVT sheets,
 - .3 Review and certify component verification sheets as they are completed by the Contractor, and
 - .4 Review commissioning schedule
 - .2 Contractor;
 - .1 Comply with the requirements in the Specifications,
 - .2 Complete the component verification,
 - .3 Conduct the equipment system start-up and proving, and
 - .4 Develop the commissioning schedule, reflecting the PVTs.
- .4 Commissioning Phase
 - .1 Consultant
 - .1 Witness all system and integrated systems tests,
 - .2 Review and certify commissioning test results,
 - .3 Track and compile all commissioning documentation submitted by the contractor and confirm that all commissioning tasks are completed,
 - .4 Incorporate all commissioning documentation into a preliminary commissioning report and recommend interim acceptance.
 - .5 Identify “deferred” commissioning tests due to seasonal constraints, etc.
 - .2 Contractor
 - .1 Comply with the requirements in the specifications,
 - .2 Conduct the system testing, and
 - .3 Conduct the integrated system testing.
- .5 Operating Phase
 - .1 Consultant
 - .1 Provide advice and recommendations for fine tuning, if required,
 - .2 Witness “deferred” commissioning tests,



- .3 Review and certify “deferred” systems test results,
- .4 Incorporate deferred system test results and all other commissioning documentation into a final commissioning report with an executive summary recommending final acceptance.
- .2 Contractor
 - .1 Address warranty issues,
- .6 Evaluation Phase
 - .1 Consultant
 - .1 Provide advice and recommendations during the final evaluation.

2.9 CONSTRUCTION DOCUMENTS

2.9.1 PURPOSE

- .1 This section provides direction in the preparation of construction contract documents (namely specifications, drawings and addenda) for PWGSC.
- .2 Drawings, specifications and addenda must be complete and clear, in order that a contractor can prepare a bid without guesswork. Standard practice for the preparation of construction contract documents requires that:
 - .1 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.
 - .2 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.
 - .3 Addenda are changes to the construction contract documents or tendering procedures, issued during the tendering process.

2.9.2 PRINCIPLES FOR PWGSC CONTRACT DOCUMENTS

- .1 PWGSC’s contract documents are based on common public procurement principles.
- .2 PWGSC does not use Canadian Construction Document Committee (CCDC) documents.
- .3 The construction contract and the terms and conditions are prepared and issued by PWGSC, along with all other related bidding and contractual documents.
 - .1 For more detailed information, the clauses are available on the following web site:
 - .2 <http://ccua-sacc.tpsgc-pwgsc.gc.ca/pub/acho-eng.jsp>
 - .3 Any questions should be directed through the PWGSC Project Manager.

2.9.3 QUALITY ASSURANCE

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

2.9.4 ADDENDA

- .1 Format
 - .1 Prepare addenda using the format shown in Appendix ‘C’.
 - .2 No signature type information is to appear.
 - .3 Every page of the addendum (including attachments) must be numbered consecutively.
 - .4 All pages must have the PWGSC project number and the appropriate addendum number.
 - .5 Sketches shall appear in the PWGSC format, stamped and signed.
 - .6 No Consultant information (name, address, phone #, consultant project # etc.) may appear in the addendum or its attachments (except on sketches).
- .2 Content



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

2.9.5 SUBMISSIONS

- .1 For each construction document submission, the Consultant shall provide:
 - .1 A completed and signed Checklist for the Submission of Construction Documents (See Appendix 'B')
 - .2 Original specification; printed one side on 216 mm x 280 mm white bond paper.
 - .3 Index, as per Appendix 'C'
 - .4 Reproducible original drawings; sealed and signed by the design authority.
 - .5 Addenda (if required), as per Appendix 'D;' (to be issued by PWGSC)
- .2 Tender information:
 - .1 Include a description of all units and estimated quantities to be included in unit price table.
 - .2 Include a list of significant trades including costs.
 - .1 PWGSC will then determine which trades, if any, will be tendered through the Bid Depository.
- .3 Government Electronic Tendering System (MERX):
 - .1 Consultants shall 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.
 - .2 The electronic copy of drawings and specifications is for bidding purposes only and do not require to be signed and sealed.

2.9.6 PWGSC ROLE

- .1 PWGSC shall provide:
 - .1 General and Special Instructions to Bidders
 - .2 Bid and Acceptance Form
 - .3 Standard Construction Contract Documents

2.10 SPECIFICATIONS

2.10.1 GENERAL

- .1 In preparing project specifications, the Consultant must use the current edition of the National Master Specification (NMS) in accordance with the "NMS User's Guide".

2.10.2 NATIONAL MASTER SPECIFICATION (NMS)

- .1 In preparing project specifications, the Consultant must use the current edition of the National Master Specification (NMS) in accordance with the "NMS User's Guide".
- .2 The NMS is a master construction specification available in both official languages, which is divided into 48 Divisions (Masterformat 2004) and is used for a wide range of construction and/or renovation projects.
- .3 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 of conflict and ambiguity.

2.10.3 SPECIFICATION ORGANIZATION

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



- .3 For specifications not included in the NMS, but required for the project, follow the number and title recommendations of Masterformat 2004
- .4 Number each page and start each Section on a new page
- .5 Bind specifications
- .6 Include Division I, edited to PWGSC requirements.
- .7 Note: Consultant's name is not to be indicated in the specifications..

2.10.4 TERMINOLOGY

- .1 Use the term "Departmental Representative" instead of Engineer, PWGSC, Owner, Consultant or Architect.
- .2 "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.
- .3 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.
- .4 Specifications must permit bidders to calculate all quantities and bid accurately.
 - .1 If quantities are impossible to identify (i.e. cracks to be repaired) give an estimated quantity for bid purposes (unit prices).
- .5 Ensure that the terminology used throughout the specifications is consistent and does not contradict the applicable standard construction contract documents.

2.10.5 DIMENSIONS

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

2.10.6 STANDARDS

- .1 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.
- .2 Canadian standards should be used wherever possible.

2.10.7 SPECIFYING MATERIALS

- .1 The practice of specifying actual brand names, model numbers, etc., is against departmental policy except for special circumstances.
- .2 The method of specifying materials shall be by using industry recognized standards.
- .3 If the above method cannot be used and where no standards exist, specify by a non-restrictive, non-trade name "prescription" or "performance" specifications.
- .4 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
- .5 Include all known materials acceptable for the purpose intended, and in the case of equipment, identify by type and model number.

2.10.8 ACCEPTABLE PRODUCTS AND MATERIALS

- .1 The term "Acceptable Manufacturers" must not be used, as this restricts competition and does not ensure the actual material or product will be acceptable.
 - .1 A list of words and phrases that should be avoided is included in the NMS User's Guide.
- .2 Listing of acceptable products or materials is to be an exception, due to a unique specification or for the purpose of assisting bidders in identifying lesser known potential products or materials.



- .3 For exceptions, provide justifiable reasons for listing products and materials and submit to the *Departmental Representative* for acceptance.
- .4 When authorized to list acceptable products or materials, list all, with a minimum of three (3), trade names of products and materials acceptable for the intended purpose.

2.10.9 ALTERNATE PRODUCTS AND MATERIALS

- .1 Alternates must be approved by addendum issued by the *Departmental Representative* in accordance with Instructions to bidders.
- .2 Review applications for approval of alternate products and materials and provide recommendations to the *Departmental Representative*.
- .3 Compare products/materials to specifications. Do not compare product-to-product or material-to-material.

2.10.10 SEPARATE AND ALTERNATE PRICES

- .1 Do not include Separate or Alternate Pricing .

2.10.11 SOLE SOURCING

- .1 Sole sourcing for materials and work may be used for proprietary systems (i.e. fire alarm systems, EMCS systems).
- .2 Substantiation and/or justification will be required.
- .3 Prior to including sole source materials and/or work, the Consultant must contact the *Departmental Representative* to obtain the approval for the sole sourcing.

2.10.12 UNIT PRICES

- .1 Unit prices are used where the quantity can only be estimated (e.g. earth work) and the approval of the Project Manager must be sought in advance of their use.

2.10.13 CASH ALLOWANCES

- .1 Construction contract documents should be complete and contain all of the requirements for the contractual work.
- .2 Cash allowances are to be used only under exceptional circumstances (i.e. utility companies, municipalities), where no other method of specifying is appropriate.
- .3 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.

2.10.14 WARRANTIES

- .1 It is the practice of PWGSC to have a 12-month warranty and to avoid extending warranties for more than 24 months.
- .2 When it is deemed necessary to extend a warranty beyond the 12 month period provided for in the General Conditions of the contract, obtain approval from the Project Manager.
- .3 Delete all references to manufacturers' guarantees.

2.10.15 SCOPE OF WORK

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

2.10.16 SUMMARY AND SECTION INCLUDES

- .1 In Part - I All Sections; do not use (delete):
 - .1 "Summary" and
 - .2 "Section Includes."

2.10.17 RELATED SECTIONS

- .1 In Part I All Sections; do not use (delete)

2.10.18 INDEX



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

2.10.19 HEALTH AND SAFETY

- .1 Confirm with the Project Manager to determine if there are any instructions to meet regional requirements.

2.10.20 EXPERIENCE AND QUALIFICATIONS

- .1 Remove experience and qualification requirements from specification sections.

2.10.21 PREQUALIFICATION

- .1 Do not include in the specification any mandatory contractor and/or subcontractor prequalification requirements that could become a contract award condition.
- .2 If a prequalification process is required, contact the Project Manager.
- .3 There should be no references to certificates, transcripts or license numbers of a trade or subcontractor being included with the bid.

2.10.22 CONTRACTING ISSUES

- .1 Specifications describe the workmanship and quality of the work.
 - .1 Contracting issues should not appear in the specifications.
- .2 Division 00 of the NMS is not used for PWGSC projects.
- .3 Remove all references within the specifications, to the following:
 - .1 General Instructions to Bidders
 - .2 General Conditions
 - .3 CCDC documents
 - .4 Health and Safety requirements
 - .5 Priority of documents
 - .6 Security clauses
 - .7 Terms of payment or holdback
 - .8 Tendering process
 - .9 Bonding requirements
 - .10 Insurance requirements
 - .11 Alternative and separate pricing
 - .12 Site visit (Mandatory or Optional)
 - .13 Release of Lien and deficiency holdbacks

2.11 DRAWINGS

2.11.1 GENERAL

- .1 Drawings shall be in accordance with PWGSC Western CADD Standards and CSA B78.3.
- .2 Refer to:
 - .1 <http://www.tpsgc-pwgsc.gc.ca/cdao-cadd/ouest-western/tdm-toc-eng.html>
 - .2 The above link is subject to change
 - .3 The Consultant shall check with the Project Manager to ensure that the link is current.
- .3 Download and use the Toolkit which includes drawing border templates, layer utility and drawing standards checker.

2.11.2 TITLE BLOCKS

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

2.11.3 DIMENSIONS

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

2.11.4 TRADE NAMES



- .1 Trade names on drawings are not acceptable.
- .2 Refer to SECTION 2.3, SPECIFICATIONS; 2.3.6 Specifying Materials for specifying materials by trade name.

2.11.5 SPECIFICATION NOTES

- .1 No specification type notes are to appear on any drawing.

2.11.6 TERMINOLOGY

- .1 Use the term "Departmental Representative" instead of Engineer, PWGSC, Owner, Consultant or Architect.
- .2 "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.
- .3 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", may not be indicated on the drawings or in the specifications as this promotes inaccurate and inflated bids.
- .4 Specifications & drawings must permit bidders to calculate all quantities and bid accurately.
- .5 If quantities are impossible to identify (i.e. cracks to be repaired) give an estimated quantity for bid purposes (unit prices).
- .6 Ensure that the terminology used throughout the drawings & specifications is consistent and does not contradict the applicable standard construction contract documents.

2.11.7 INFORMATION TO BE INCLUDED

- .1 Drawings must show the quantity and configuration of the project, the dimensions and details of how it is constructed.
- .2 There should be no references to future work and no any information that will be changed by future addenda.
- .3 The scope of work should be clearly detailed and elements not in contract should be eliminated or kept to an absolute minimum.

2.11.8 DRAWING NUMBERS

- .1 Number drawings in sets according to the type of drawing and the discipline involved as follows:
 - .1 The requirements of SECTION 2 PWGSC NATIONAL CADD STANDARD will supersede these requirements, where warranted.
- .2 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.

2.11.9 PRINTS



- .1 Print with black lines on white paper.
- .2 Blue prints are acceptable for document submissions at stages outlined in the TOR.
- .3 Confirm with Departmental Representative the size of prints to be provided for review purposes.

2.11.10 BINDING

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

2.11.11 LEGENDS

- .1 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.

2.11.12 SCHEDULES

- .1 Where schedules occupy entire sheets, locate them next to the plan sheets or at the back of each set of drawings for convenient reference.
 - .1 See CGSB 33-GP-7 Architectural Drawing Practices for schedule arrangements.

2.11.13 NORTH POINTS

- .1 On all plans include a north point.
- .2 Orient all plans in the same direction for easy cross-referencing.
- .3 Wherever possible, lay out plans so that the north point is at the top of the sheet.

2.11.14 DRAWING SYMBOLS

- .1 Follow generally accepted drawing conventions, understandable by the construction trades, and in accordance with PWGSC publications.



3 PROJECT ADMINISTRATION

3.1 GENERAL REQUIREMENTS FOR ALL PROJECTS

- .1 The administration requirements outlined in this section are applicable to all PWGSC projects in Western Region, unless otherwise indicated in the TOR.
- .2 “Project Team” refers to key representatives involved in this project.
- .3 All team members must maintain a professional, cordial and collaborative relationship.

3.2 LANGUAGE

- .1 Construction documents must be prepared in English.

3.3 MEDIA

- .1 The Consultant shall not respond to any media inquiry.
- .2 Direct all media requests to the Departmental Representative.

3.4 PROJECT MANAGEMENT

3.4.1 GENERAL

- .1 Public Works and Government Services Canada administers the project on behalf of Canada and exercises continuing control over the project during all phases of development.
- .2 This project is to be organized, managed and implemented in a collaborative manner.
- .3 The PWGSC project management team, the Consultant, the Contractor and the User Department teams are to work cooperatively at every stage of the design and construction process in order to assure the creation of a successful and meaningful work of architecture.
- .4 Under the leadership of the PWGSC Departmental Representative, all team members are responsible for establishing and maintaining a professional and cordial relationship.

3.4.2 NATIONAL PROJECT MANAGEMENT SYSTEM

- .1 PWGSC uses the National Project Management System (NPMS) for management of its building projects in order to align with the Federal Government approvals processes. Refer to the PWGSC NPMS web site for more details.
- .2 <http://www.tpsgc-pwgsc.gc.ca/biens-property/sngp-npms/index-eng.html>
- .3 This GP&S document speaks to services that are normally provided by the professional during the Project Delivery Phase of the NPMS.

3.4.3 DESIGN STAGE

- .1 Pre-design Process
 - .1 The purpose of this phase is to analyze all project requirements including codes, regulations, programming, sustainability, cost, time management and risk to demonstrate a full understanding of the project
 - .2 The approved deliverable will become the formal project work plan and will be utilized throughout the project to guide the delivery.
- .2 Schematic Design Process
 - .1 The purpose of this phase is to explore three distinctly different design options and to analyze them against the project requirements.
 - .2 The Schematic Design will be in sufficient detail to illustrate and communicate the project characteristics.
 - .1 Provide a detailed review and analysis of the project requirements including all updates and amendments to ensure all requirements are fully integrated into the Schematic Design.



- .2 Out of this process the Schematic Design will be accepted and authorization to proceed to Design Development will be based on the accepted Schematic Design.
- .3 The *Departmental Representative*, in concert with others shall choose one option to be further developed.
 - .1 Although the *Consultant* is required to identify a preferred option, the *Departmental Representative* may select another option.
 - .2 The approved deliverable will become the formal project work plan and will be utilized throughout the project to guide the delivery.

3.4.4 IMPLEMENTATION STAGE

- .1 Design Development Process
 - .1 The purpose of this phase is to further develop the design option selected for refinement at the Schematic Design stage.
 - .2 The Design Development documents consist of drawings and other documents to describe the scope, quality and cost of the project in sufficient detail to facilitate design approval, confirmation of code compliance, detailed planning of construction and project approval.
 - .3 This design will be used as the basis for preparation of construction documents.
 - .4 The approved deliverable will become the formal project work plan and will be utilized throughout the project to guide the delivery.
- .2 Commissioning Process
 - .1 “Commissioning” is a quality assurance process, in which the functional requirements of the Owner/occupant and the operational requirements of facility management are tested, verified and proven to function as intended.
 - .2 Commissioning deliverables occur at various phases throughout the project as detailed in section 2.8.
 - .3 Commissioning shall be in accordance with the PWGSC Commissioning Manual CP.1 (2003).
- .3 Construction Document Process
 - .1 The purpose of this phase is to translate design development documents into construction drawings and specifications, for use by the contractor to determine a cost for the work and to construct the building.
- .4 Contract Procurement Process
 - .1 The purpose of this phase is to obtain and evaluate bids/proposals from qualified contractors to construct the project, as per the Construction Contract Documents and to award the construction contract according to government regulations.
- .5 Construction Contract Administration Process
 - .1 The purpose of this phase is to implement the project in compliance with the Construction Contract Documents and to direct and monitor all necessary or requested changes to the scope of work during construction, commissioning and closeout.

3.4.5 CLOSEOUT STAGE

- .1 Post Construction Process
 - .1 The purpose of this phase is to ensure the orderly completion and recording of all aspects of the work during the construction and liaise with the Public Works And Government Services Canada and other agencies as appropriate to close out the project.

3.4.6 ENGINEERING PROJECTS



- .1 Refer to the project specific TOR where the stages for an Engineering Project differs slightly.

3.5 LINES OF COMMUNICATION

- .1 In general, communications will be through the Departmental Representative, unless directed otherwise.
 - .1 This includes formal contact between the Consultant, the Contractor, the PWGSC Project Team and the User Department.
- .2 Direct communication between members of the PWGSC Project Team on routine matters may be required for resolution of technical issues.
 - .1 However, this shall not alter project scope, budget or schedules, unless confirmed in writing by the Departmental Representative.
- .3 During construction tender call, PWGSC will conduct all correspondence with bidders and award the contract.

3.6 MEETINGS

- .1 The Departmental Representative will arrange meetings throughout the project, with representatives from:
 - .1 The User Department;
 - .2 PWGSC
 - .3 The Consultant team; and
 - .4 The Contractor (during the construction phase)
- .2 Standing agenda items shall include:
 - .1 Project Schedule,
 - .2 Cost,
 - .3 Risk,
 - .4 Quality,
 - .5 Health and safety

3.7 CONSULTANT RESPONSIBILITIES

- .1 The “Consultant Team” includes the Consultant’s staff, sub-consultants and specialists.
 - .1 This team must maintain its expertise for the duration of the project.
 - .2 The team must include qualified registered architectural and engineering professionals, with extensive relevant experience, capable of providing all required services.
 - .3 Team members may be qualified to provide services in more than one discipline.
 - .4 The Consultant may expand the team to include additional disciplines.
- .2 The Consultant is responsible for:
 - .1 Obtaining Departmental Representative acceptance for each project phase before proceeding to the next phase.
 - .2 Accurately communicating design, budget, and scheduling issues to staff, sub-consultants and specialists.
 - .3 Co-ordinating input for the Departmental Representative’s Risk Management Plan
 - .4 Co-ordinating the quality assurance process and ensuring that submissions of sub-consultants are complete and signed-off by reviewers;
 - .5 During the design phases:
 - .1 Attend meetings,
 - .2 Record the issues and decisions,
 - .3 Prepare and distribute minutes within two working days of the meeting,



- .4 Ensure all meetings are green i.e. using electronic documents or double-sided hard copies and
- .5 Ensure sub-consultants attend required meetings.
- .6 During the construction phase:
 - .1 Attend meetings and provide site inspection services
 - .2 Ensure sub-consultants provide site inspection services and attend required meetings.
- .3 The Consultant is responsible for:
 - .1 Coordinating and directing the work of all team activities, sub-consultants and specialists
 - .2 Preparing a design that meets project requirements.
 - .3 Obtaining approvals on behalf of the Departmental Representative from the User and other levels of government such as provincial and municipal governments
 - .1 The Consultant shall adjust the documentation to meet the requirements of these authorities.

3.8 PWGSC RESPONSIBILITIES

- .1 Administration
 - .1 PWGSC administers the project and exercises continuing control over the project during all phases of development.
 - .2 The following administrative requirements apply during all phases of the project delivery.
- .2 Reviews
 - .1 PWGSC will review the work at various stages and reserves the right to reject unsatisfactory work at any stage.
 - .2 If later reviews show that earlier acceptances must be withdrawn, the Consultant shall re-design and re-submit at no extra cost.
- .3 Acceptance
 - .1 PWGSC acceptance of submissions from the Consultant simply indicates that, based on a general review, the material complies with governmental objectives and practices, and meets overall project objectives
 - .2 Acceptance does not relieve the Consultant of professional responsibility for the work and for compliance with the contract.
- .4 PWGSC Project Management
 - .1 The Project Manager assigned to the project is the Departmental Representative.
 - .2 The Departmental Representative is directly responsible for:
 - .1 The progress and administration of the project, on behalf of PWGSC
 - .2 Day-to-day project management and is the Consultant's single point of contact for project direction.
 - .3 Providing authorizations to the Consultant on various tasks throughout the project.
 - .3 Unless directed otherwise by the Departmental Representative, the Consultant obtains all Federal approvals necessary for the work.
- .5 PWGSC Professional & Technical Resources Team
 - .1 Provides professional advice and quality assurance reviews of consultant deliverables by Architectural and Engineering professional disciplines.
 - .2 Offers expert technical advice on related project issues, such as functional programming, options analysis, risk management, cost planning, scheduling, contract interpretation, specifications, terms of reference, commissioning, claims management, project delivery approach and project compliance.



- .3 Participates regularly in design phases and may attend (during construction), contractor meetings and conduct field reviews on behalf of the Departmental Representative.
- .4 Provides a Design Manager for the project, who will coordinate the services of the Professional & Technical Resources Team through the Departmental Representative;
 - .1 The Design Manager is the assembler and coordinator of the Resources Team of Architects, Engineers, Interior Designers, Project Planners, Cost Planners and Commissioning Specialists, all with specific areas of expertise.
- .6 PWGSC Commissioning Specialist represents the Departmental Representative's interests in the commissioning process for buildings by:
 - .1 Providing technical advice on O&M matters, operational criteria and quality assurance on the commissioning process throughout the project life cycle;
 - .2 Coordinating and overseeing internal PWGSC commissioning activities during all project phases to ensure that O&M concerns are addressed;
 - .3 Working closely with the Consultant, the Consultant's Commissioning Manager, the Contractor, and the Departmental Representative for Commissioning activities and,
 - .4 Reviews all documentation and reported results relative to commissioning throughout the project delivery.

3.9 USER DEPARTMENT RESPONSIBILITIES

- .1 The User Department Project Leader
 - .1 Is accountable for the expenditure of public funds and delivery of the project in accordance with terms accepted by the Treasury Board
 - .2 Reports to senior User Department executive management
 - .3 Will play several critical roles for the successful implementation of the project, as follows:
 - .1 Coordinate the quality, timing and completeness of information and decisions relating to issues related to the functional performance of the facility;

3.10 REVIEW AND APPROVAL BY PROVINCIAL AND MUNICIPAL AUTHORITIES

- .1 The federal government generally defers to provincial and municipal authorities for specific regulations, standards and inspections but in areas of conflict, the more stringent authority prevails.
- .2 Municipal authority review
 - .1 The purpose of this review is information and awareness;
 - .2 Submissions will be reviewed at the completion of specific phases as outlined in the Required Services Section of the TOR.

3.11 BUILDING PERMITS AND OCCUPANCY PERMITS

- .1 The Consultant will support the Contractor in applying for building permits by providing the required documentation.
 - .1 These documents will be submitted at phases as requested by the municipal authorities.
 - .2 The Consultant will negotiate and resolve building permit related issues.
- .2 The Consultant shall support the Contractor in its application for an occupancy permit and coordinate the resolution of all outstanding issues relating to the permit.
- .3 The Contractor shall pay for the permits on behalf of PWGSC.

3.12 TECHNICAL AND FUNCTIONAL REVIEWS

- .1 This includes both COE reviews and User Department reviews.



- .1 The Purpose of these reviews is technical and functional quality assurance;
- .2 Submissions will be reviewed at the completion of specific phases as outlined in the Required Services Section of the TOR.
- .2 HRSDC Reviews of building projects
 - .1 The purpose of these reviews is for fire protection, health and life safety;
 - .2 Submissions will be reviewed at the completion of specific phases as outlined in the Required Services Section of the TOR.



APPENDIX A CHECKLISTS

A.1 CHECKLIST FOR THE SUBMISSION OF CONSTRUCTION DOCUMENTS

A1.1 TITLE BLOCK

Project Title:		Date:
Project Location:		Project Number:
Consultant's Name:		Contract Number:
PWGSC PM:	Review Stage:	

A1.2 STANDARDS & GUIDELINES

ITEM	Checked by:	Progress Submission	Pre-Tender or Tender Ready Submission	Comments:
I. General The design meets the requirements of;				
.1 National Building Code - 2005				
.2 National Fire Code - 2005				
.3 National Plumbing Code - 2005				
.4 Canada Labour Code				
.5 NFPA 10 - Standard for Portable Fire Extinguishers - 2002				
.6 NFPA 13 - Standard for the Installation of Sprinkler Systems - 2007				
.7 NFPA 14 – Standard for the Installation of Standpipe and Hose Systems - 2003				
2. Treasury Board The design meets the requirements of;				
.1 Chapter 3-6: Fire Protection Standard for Correctional Institutions. http://www.tbs-sct.gc.ca/pol/doc-eng.aspx?id=13580				
.2 Chapter 3-2: Fire Protection Standard for Design & Construction. http://www.tbs-sct.gc.ca/pol/doc-eng.aspx?id=13581				
.3 Fire Protection Standard for Electronic Data Processing				



Equipment. http://www.tbs-sct.gc.ca/pol/doc-eng.aspx?id=13582				
3. HRSDC Fire Protection Engineer Standards The design meets the requirements of;				
.1 Federal Fire Protection Standards. http://www.hrsdc.gc.ca/eng/labour/fire_protection/policies_standards/index.shtml				
.2 FC-403 Standard for Sprinkler Systems. http://www.hrsdc.gc.ca/eng/labour/fire_protection/policies_standards/commissioner/403/page00.shtml				
.3 FC-311-M Standard for Record Storage. http://www.hrsdc.gc.ca/eng/labour/fire_protection/policies_standards/commissioner/311/page00.shtml				
4. Labour Canada Standards The design meets the requirements of;				
.1 Canada Labour Code. http://laws.justice.gc.ca/en/L-2/				
.2 Canada Occupational Health and Safety Regulations. http://laws.justice.gc.ca/eng/SOR-86-304/index.html				
.3 Movable Storage Units Standard. http://www.hrsdc.gc.ca/eng/labour/fire_protection/policies_standards/guidelines/mobile.shtml				
5. ASHRAE Standards The design meets the requirements of;				
.1 ANSI/ASHRAE 55 – 2004 Thermal Environmental Conditions for Human Occupancy				
.2 ASHRAE 62.1 – 2007 – Ventilation for Acceptable Indoor Air Quality				
.3 ASHRAE Applications Handbook				
.4 ASHRAE Fundamentals Handbook				



6. PWGSC MD Standards The design meets the requirements of;					
.1	MD 15116 – Computer Room Air Conditioning Systems - 2006				
.2	MD 15128 – Minimum Guidelines for Laboratory Fume Hoods – March 2004				
.3	MD 15129 – Perchloric Acid Fume Hoods - 2006				
.4	MD 15161 – Guidelines for the control of Legionella in mechanical systems				
.5	MD 250005 – Energy Monitoring and Control Systems Design Guidelines - 2009				

A1.3 SPECIFICATIONS – ALL DISCIPLINES

ITEM	Checked by:	Progress Submission	Pre-Tender or Tender Ready Submission	Comments:
1. General The Specifications meet the requirements of;				
.1	The NMS Users Guide. .			
.2	Masterformat 2004			
.3	The current edition of the NMS database			
.4	Deletion of “Related Sections” and “Section Includes” throughout.			
.5	PWGSC GCs for projects tendered through PWGSC			
.6	Consistent use of CCDC or other for privately tendered projects.			
.7	Non-proprietary Specifications.			
.8	Being completely edited with removal of all square choice brackets and Spec Notes.			
.9	Including all relevant Sections as evident by the by the scope of work indicated by the drawings.			
.10	Not referring to the Tender Submission (Contract B)			
.11	Use of command imperative style of language.			
.12	Formatting in either the NMS			



	1/3 - 2/3 page format or the Construction Specifications Canada full page format.				
.13	Each Section starting on a new page and the Project Number, Section Title, Section Number and Page Number show on the header of each page only.				
.14	Specification headers not including date or consultant's name.				
.15	Departmental Representative being used throughout instead of Engineer, PWGSC, Owner, Consultant or Architect. (That is; the contractual entity)				
.16	Non use of notations such as: "verify on site", "as instructed", "to match existing", "example", "equal to", "equivalent to" and "to be determined on site by".				
.17	Dimensions being provided in metric only.				
.18	Indicating the latest edition of all references noted in Part 1 of each Section and that un-used reference Standards are deleted.				
.19	No bolding of text.				
.20	Use of Western Regions standard payments procedures clause.				

AI.4 DRAWINGS GENERAL – ALL DISCIPLINES

ITEM	Checked by:	Progress Submission	Pre-Tender or Tender Ready Submission	Comments:
1. General The Drawings meet the requirements of;				
.1 PWGSC Western Region AutoCAD drafting standards.				
.2 Using the "toolkit" and the "drawing checker".				
.3 All dimensions in SI. No dual dimensioning has been used.				
.4 Providing a north arrow.				
.5 Providing a legend on all relevant sheets.				
.6 Indicating grid lines on all				



	sheets.				
.7	Using standard scales. (1:50, 1:100 etc.)				
.8	Cross referencing and detailing is consistent.				
.9	No Specifications on drawings.				
.10	All notes being written in the command imperative style of speech.				
.11	Not naming the "Contractor" or "sub trades" in the notes.				
.12	Numbering all rooms on all floor plans.				
.13	Using appropriate line weights to differentiate new versus existing versus demolition.				
.14	Using font sizes and types following PWGSC drafting standards.				
.15	Providing separate drawings for demolition and new work.				
.16	Drawing acceptance by the FPE of HRSDC.				

AI.5 DRAWINGS - DISCIPLINE SPECIFIC

ITEM	Checked by:	Progress Submission	Pre-Tender or Tender Ready Submission	Comments:
1. Architectural The Drawings meet the requirements of;				
.1 Providing a Building Code Analysis.				
.2 Indicating fire separations and firewalls and rating.				
.3 Providing a complete site plan with all related details.				
.4 Providing a fully detailed reflected ceiling plan showing lighting, diffusers, sprinkler heads, etc.				
.5 Wall sections being coordinated with the structural and other disciplines drawings.				
.6 Building elevations showing all mechanical and electrical ancillaries.				
.7 Sub surface drainage being shown on the foundation plans and coordinated with all other disciplines.				



.8	Accessibility conforming to CAN/CSA 651-04.				
.9	Coordination of door, finish, hardware schedules in conjunction with fire separations and other disciplines.				
.10	All conflict points identified by BIM have been resolved.				
2. Structural					
The Drawings meet the requirements of;					
.1	Ensuring that General Notes provide additional information that is NOT covered in Specifications.				
.2	Remove all information that is or should be covered by the Specifications.				
.3	Note loads used for design.				
.4	PWGSC policy of using general product descriptions, not proprietary product names followed.				
.5	Table of Abbreviations used provided.				
.6	Section bubbles properly cross referenced.				
.7	Coordination with all other disciplines.				
3. Mechanical					
The Drawings meet the requirements of;					
.1	Separate drawings for Plumbing, HVAC, Fire Suppression, etc.				
.2	Provision for humidification with a clean source of water and no standing water				
.3	Provision of separate HVAC zoning for each unique thermal zone.				
.4	Providing Ventilation to ASHRAE 62.1.				
.5	Meets all requirements of ASHRAE 62.1, Section 5.				
.6	All thermostats are wall mounted.				
.7	The building and systems and equipment meeting all requirements of Section 5 of ASHRAE 62.1.				
.8	Conformance to ASHRAE 55 for;				
.1	Operative				



	temperature .2 Air motion .3 Radiant Temperature Asymmetry .4 Draft .5 Vertical Temperature Difference .6 Floor Surface Temperature .7 Temperature Variations with Time .8 Cyclic Variations .9 Drifts and Ramps				
.9	Providing building cross-sections at all key locations showing clearances for the mechanical installation and access for maintenance.				
.10	Providing sufficient access to mechanical equipment for maintenance.				
.11	Providing mechanical schematics showing design pressure and temperatures as well as all instrumentation and control points labels.				
.12	Design complies with all referenced PWGSC MD Standards.				
.13	Equipment schedules on the drawings coordinate and agree with the Book Specifications.				
.14	Duct attenuation is designed to conform to the STC requirements shown on the architectural drawings.				
.15	Coordination with all other disciplines.				
	4. Electrical The Drawings meet the requirements of;				
.1	Separate drawings for Lighting, Power, Fire Alarm System, Communication and Data, Security & CCTV etc.				
.2	Verification and acceptance of the Grounding condition for this project.				
.3	The Overcurrent and Short Circuit Study and confirming all components are fully coordinated.				
.4	The Arch-Flash Study and confirming all components are fully coordinated.				
.5	Providing Arch protection				



	warning signs and labeling.				
.6	Providing lighting Levels in accordance with the National Building Code and IESNA recommendations.				
.7	Not using Armored Cable. Using Armored Cable will be allowed only for jumping from one light fixture to the other in a distance up to 3m.				
.8	Providing identification for each circuit including: .1 Name .2 Voltage, .3 Phase, .4 Amps, .5 Circuit-s .6 Fed from Panel, Destination.				
.9	The Voltage Drop Calculation for each circuit and conformance to CEC requirements.				
.10	Providing phase load and total load for each panel and ensuring proper balance of the Electrical System.				
.11	Coordination with all other disciplines.				
5. Civil The Drawings meet the requirements of;					
.1	The design criteria. (e.g. design vehicle for surface structures, design period and other data for WM.WW, SW and other systems including data and calculations showing design requirements and provided capacities)				
.2	The reference standards. (e.g. minimum service connection pipe or minimum WM size, etc have been used for municipal works, name the local authority whose standards are used.)				
.3	Indicating existing sub-grade soil properties and strength that has been used for the design is indicated on drawings or in a report.				
.4	Indicating Bench Marks used for the Topographic Survey are shown with Northing, Easting and elevation data.				
.5	Indicating the Final				



	Geometric layout for existing and new infrastructures and facilities including centerline of all access roads and pipes. The data provided includes Northing and Easting of all points including start and end point and for all other points wherever there is change in direction, and all horizontal curve data				
.6	Providing typical X-sections for all structures, including type, thickness of various materials for pavement structures, and pipe diameter, material types and thickness and SDR values.				
.7	Providing design grades and slopes.				
.8	Providing details for all infrastructures and facilities indicating all works and type of materials and all geometrics and dimensions..				
.9	Coordination with all other disciplines.				



APPENDIX B SPECIFICATION TOC STANDARDS

B.1 GENERAL

B1.1 SPECIFICATIONS

- .1 List all Divisions, Sections (by number and title) and number of pages.

B1.2 DRAWINGS

- .1 List all Drawings by number and title.

B.2 SAMPLE OF TABLE OF CONTENTS

Project No:	Table of Contents	Index
R.xxxxxx		Page I of xx

SPECIFICATIONS:

- .3
.4
No. Pages
.5 Division 01 – GENERAL REQUIREMENTS
.6 01 11 00 – Summary of Work xx pages
.7 01 14 00 – Work Restrictions xx pages
.8 01 29 00 – Payment Procedures xx pages
.9 Division 02 – EXISTING CONDITIONS
.10 ETC.
.11

DRAWINGS:

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



APPENDIX C ADDENDUM FORMAT STANDARD

C.1 SAMPLE OF ADDENDUM FORMAT

CI.1 DRAWINGS

- .1 Indicate drawing number and title, then list changes or indicate revision number and date, and re-issue drawing with addendum.

CI.2 SPECIFICATIONS

- .1 Indicate section number and title.
- .2 List all changes (i.e. delete, add or change) by article or paragraph

Project Title:	Addendum No:
Project Location:	Project Number:
Consultant's Name:	Date:
The following changes in the bid documents are effective immediately. This addendum will form part of the contract documents	
Drawings	
1 AI Architectural	
Specifications	
1 Section 01 00 10 - General Instructions	
.1 Delete article (xx) entirely.	
.2 Refer to paragraph (xx) and revise "xxx", to read "xxxx"..	
2 Section 23 05 00 - Common Work Results - Mechanical	
.1 Add new article (x.xx) as follows:	



APPENDIX D DIGITAL TENDER DOCUMENTS STANDARDS

D.1 CONVENTION STANDARDS FOR TENDER DOCUMENTS

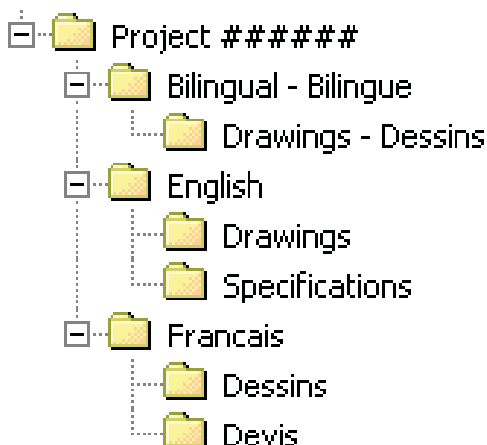
D1.1 USER MANUAL

- .1 Refer to the User manual on directory structure and naming convention standards for construction tender documents on CD ROM.
 - .1 Issued by: Real Property Contracting Directorate, PWGSC,
 - .2 Version 1.0, May 2005.

D1.2 PREFACE

- .1 The Government of Canada (GoC) has committed to move towards an electronic environment for the majority of the services it offers.
- .2 This covers the advertisement and distribution of contract opportunities, including construction solicitations.
- .3 As a result, it is now necessary to obtain a copy of construction drawings and specifications (in PDF format *without* password protection) on one or multiple CD-ROM to facilitate for the GoC the transfer of the construction drawings and specifications electronically to the Government Electronic Tendering System (GETS).
- .4 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.
- .5 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.
- .6 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.
- .7 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.

D1.3 DIRECTORY STRUCTURE



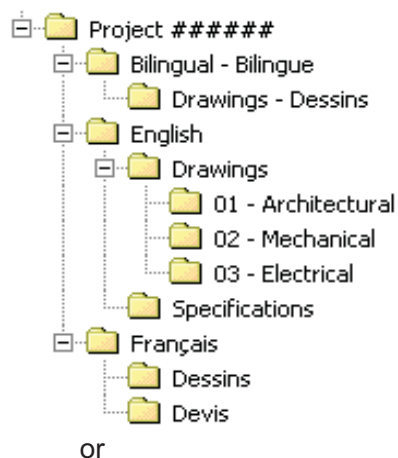


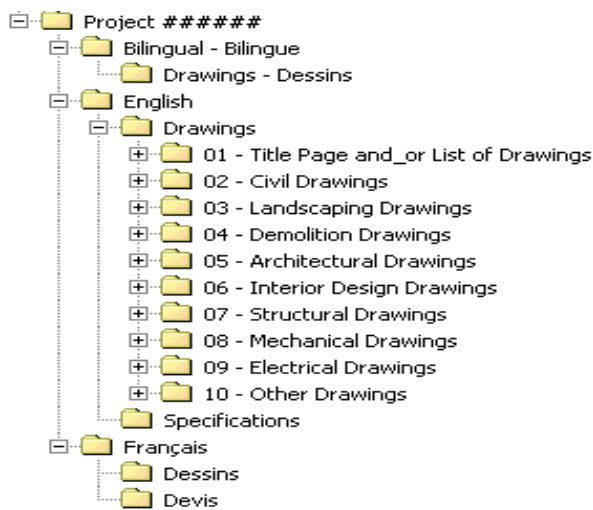
D1.4 1ST, 2ND AND 3RD TIER SUB-FOLDERS

- .1 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:
- .2 The following important points are to be noted about the Directory Structure:
 - .1 The “Project #####” folder is considered the 1st Tier of the Directory Structure where ##### represents each digit of the Project Number.
 - .2 The Project Number must always be used to name the 1st Tier folder and it is always required.
 - .3 Free text can be added following the Project Number, to include such things as a brief description or the project title;
- .3 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;
- .4 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.
- .5 IMPORTANT NOTE:
 - .1 The applicable elements of the Directory Structure (1st, 2nd and 3rd Tier folders) are always required and cannot be modified.

D1.5 4TH TIER SUB-FOLDERS FOR DRAWINGS

- .1 The “Drawings – Dessins”, “Drawings” and “Dessins” folders must have 4th Tier sub-folders created to reflect the various disciplines of the set of drawings.
- .2 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.
- .3 Note:
 - .1 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.
- .4 Examples of 4th Tier sub-folders for drawings:





DI.6 NAMING CONVENTION - 4TH TIER DRAWINGS

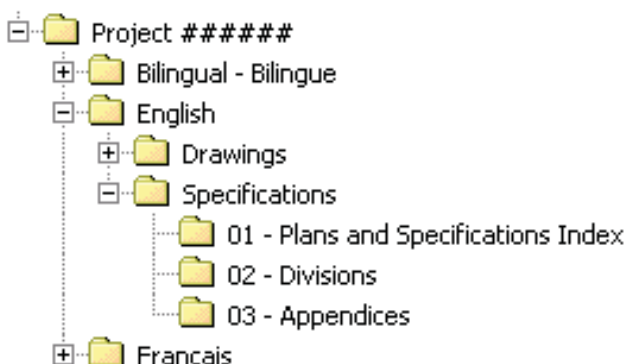
- .1 The 4th Tier sub-folders for drawings must adhere to the following standard naming convention.
 - .1 For the “Drawings” and “Dessins” folders:
 - 1 ## - Y, Where:
 - 1 ## = A two digit number ranging from 01 to 99 (leading zeros must be included)
 - 2 Y = The title of the folder
 - 2 Example: 03 – Mechanical
 - .2 For the “Drawings - Dessins” folder:
 - 1 ## - Y – Z, Where:
 - 1 ## = A two digit number ranging from 01 to 99 (leading zeros must be included)
 - 2 Y = The English title of the folder
 - 3 Z = The French title of the folder
 - 2 Example: 04 - Electrical – Électricité
- .2 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.
- .3 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:
 - .1 The alphanumerical sorting is done on an ascending order;
 - .2 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...);
 - .3 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



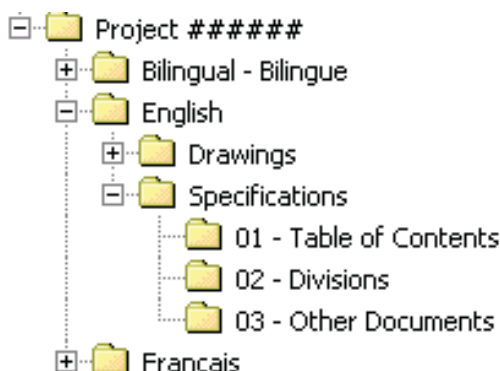
(i.e. Drawing A001 will be printed before Drawing A002, Drawing M02 before Drawing M03, etc...).

D1.7 4TH TIER SUB-FOLDERS FOR SPECIFICATIONS

- .1 The “Specifications” and “Devis” folders must have 4th Tier sub-folders created to reflect the various elements of the specifications.
- .2 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.
- .3 Examples of 4th Tier sub-folders for specifications:



or



D1.8 NAMING CONVENTION - 4TH TIER SPECIFICATIONS

- .1 The 4th Tier sub-folders for specifications must adhere to the following standard naming convention.
 - .1 For the “Specifications” and “Devis” folders:
 - 1 ## - Y, Where:
 - 1 ## = A two digit number ranging from 01 to 99 (leading zeros must be included)
 - 2 Y = The title of the folder
 - 2 Example: 02 – Divisions
 - .2 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.



- .3 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:
- .4 The alphanumerical sorting is done on an ascending order;
 - .1 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...);
 - .2 Each specifications PDF file within each sub-folder will also be sorted alphanumerically.
 - 1 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...).

DI.9 NAMING CONVENTION FOR PDF FILES

- .1 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.

DI.10 DRAWINGS

- .1 Each drawing must be a separate single page PDF file.
- .2 The naming convention of each drawing must be:
 - .1 X### - Y, Where;
 - 1 X = The letter or letters from the drawing title block ("A" for Architectural or "ID" for Interior Design for example) associated with the discipline,
 - 2 ### = The drawing number from the drawing title block (one to three digits),
 - 3 Y = The drawing name from the drawing title block (for bilingual drawings, the name in both English and French is to appear).
 - .2 Example; A001 - First Floor Details.
- .3 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.
- .4 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).
- .5 The following important points about drawings are to be noted:
 - .1 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.
 - 1 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);
 - .2 If drawing PDF files are included in the "Bilingual - Bilingue" folder, these cannot be included as well in the "English" and/or "Français" folders;
 - .3 If drawings not associated with a particular discipline are not numbered (Title Page or List of Drawings for example), these will be sorted alphabetically.
 - 1 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.

1 ## - Y, Where:

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

2 Y = The name of the drawing

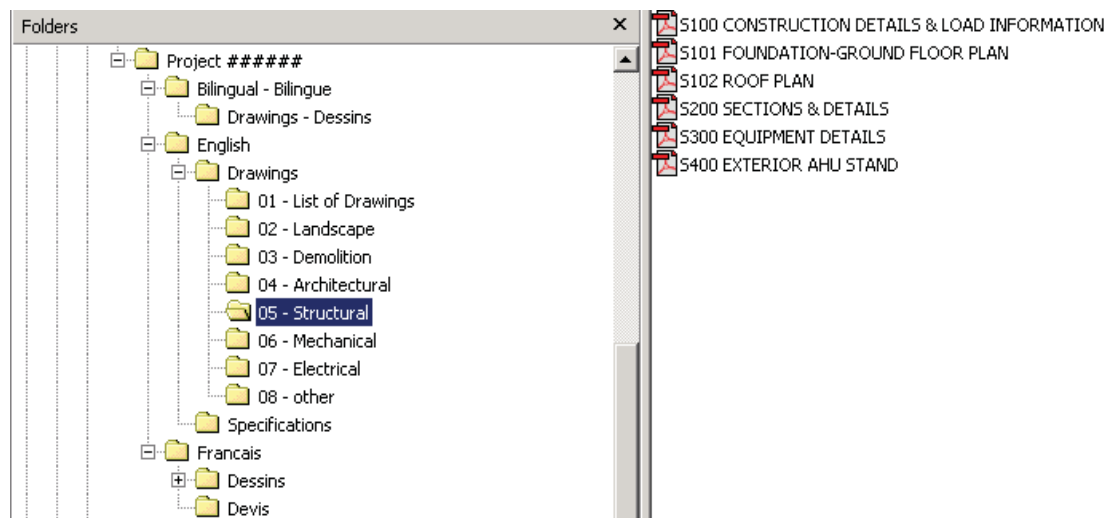
2 Example:

1 01 - Title Page

2 02 - List of Drawings

.4 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.

DI.11 EXAMPLE OF A 4TH TIER DRAWINGS SUBFOLDER’S CONTENT:



DI.12 SPECIFICATIONS

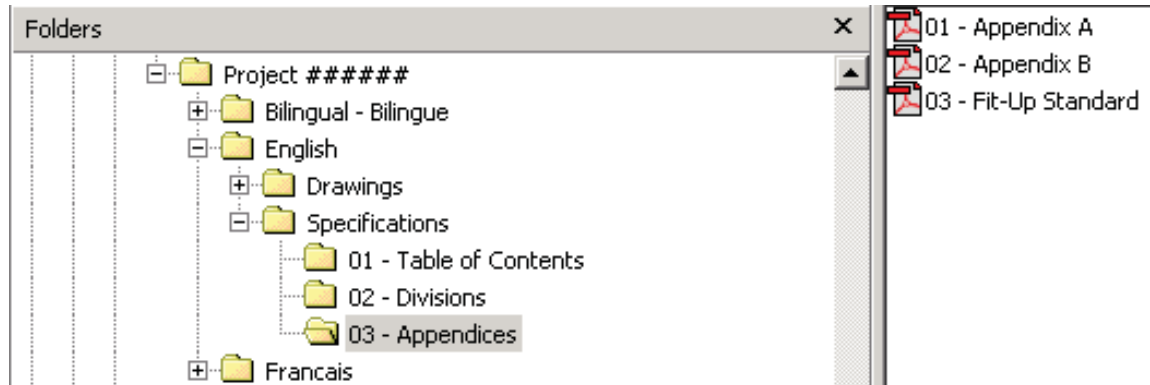
- .1 Each Specifications Division must be a separate PDF file and all pages contained in each PDF file must have the same physical size (height, width).
- .2 The Plans and Specifications Index must also be a separate PDF file.
- .3 If there are other documents that are part of the Specifications (e.g.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

DI.13 DOCUMENTS OTHER THAN SPECIFICATIONS DIVISIONS

- .1 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:
 - .1 ## - Y, Where:
 - 1 ## = Two digit number ranging from 01 to 99 with leading zeros required
 - 2 Y = Name of the document
 - .2 Example: 01 - Plans and Specifications Index



DI.14 EXAMPLE OF A SUB-FOLDER CONTENT (SUB-FOLDER OTHER THAN “DIVISIONS”):



DI.15 SPECIFICATIONS DIVISIONS

- .1 The Specifications Divisions must be named as follows:
 - .1 Division ## - Y, Where:
 - 1 Division ## = The actual word “Division” followed by a space and a two digit number ranging from 01 to 99 (with leading zeros required)
 - 2 Y = Name of the Specifications Division as per CSC/CSI MasterFormat™
 - .2 Example: Division 05 – Metals
- .2 The following important point about specifications is to be noted:
 - .1 The Numbering of the Divisions cannot be altered from CSC/CSI MasterFormat™ even if some Divisions are not used in a given project.
 - 1 For example, Division 05 will always remain Division 05 even if Division 04 is not used for a given project.

DI.16 EXAMPLE OF A “DIVISIONS” SUB-FOLDER CONTENT:





DI.17 CD-ROM LABEL

- .1 Each CD-ROM is to be labelled with the following information:
 - .1 Project Number;
 - .2 Project Title;
 - .3 Documents for Tender;
 - .4 CD X of X.
- .2 Example:
 - .1 Project 123456;
 - .2 Repair Alexandra Bridge;
 - .3 Documents for Tender;
 - .4 CD 1 of 1.



APPENDIX E PDF CREATION STANDARDS

E.1 CONVERTING CONSTRUCTION DRAWINGS INTO PDF

EI.1 REFERENCE GUIDE

- .1 Refer to the basic reference guide on converting construction drawings into portable document format (PDF), Issued by Real Property Contracting Directorate. PWGSC, Version 1.0, May 2005.

EI.2 PREFACE

- .1 Portable Document Format (PDF) is the standard format for documents that are posted on the Government Electronic Tendering System (GETS).
- .2 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.
- .3 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.
- .4 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.
 - .1 It actually should not take any longer than it would take to create a plot file or to send a drawing to a printer.
 - .2 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.
 - .3 The conversion of specifications is not covered in this basic reference guide since it does not require any special configuration or setting.
- .5 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.
 - .1 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.

EI.3 PRINTER DRIVERS

- .1 Adobe Acrobat provides two different printer drivers that are able to convert CADD drawing into PDF format, Acrobat PDF Writer and Acrobat Distiller.
- .2 Before creating a PDF file from a CADD drawing, a choice must be made as to which one will be used.
- .3 Acrobat PDF Writer is a non-PostScript printer driver that works best with documents that don't contain complex graphics.
- .4 Acrobat Distiller is a PostScript printer driver that works best with documents that contain PostScript fills, Encapsulated PostScript (EPS) graphics, or other complex elements.
- .5 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.



EI.4 PRINTER CONFIGURATION

- .1 Before converting a CADD drawing to PDF, an Acrobat printer configuration file for the PDF paper size needs to be created.
- .2 This function can be done in the CADD software rather than using a custom paper size defined for the Acrobat distiller feature.
- .3 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.
- .4 The configuration can then be re-used to simplify the conversion process for future files that use the same page size.
- .5 As an alternative, although not recommended, a custom-defined size can be created in Acrobat Distiller in the *properties* menu.

EI.5 CREATING PDF FILES

- .1 Once the printer configuration has been done in the CADD software, open Acrobat Distiller and make the necessary settings in the *preferences* and *job options* sub-menu.
 - .1 Ensure that the page size match the sheet size selected in the CADD software to create the file.
 - .2 Particular settings can be saved under different names for future use.
- .2 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.
- .3 A progress bar will show during the conversion and the newly converted PDF file should open up and be displayed for verification.

EI.6 PDF FILES SETTINGS

- .1 Security
 - .1 Adobe Acrobat contains security features that can be used to secure the files by restricting any changes to the files.
 - .2 Since the files will be posted on MERX and will be used for printing copies, the files must not be password protected and must allow printing.

EI.7 DRAWING ORIENTATION

- .1 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.

EI.8 FONT TYPE

- .1 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.

EI.9 RESOLUTION

- .1 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).

EI.10 SCALE

- .1 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.

EI.11 SCANNING



- .1 Scanning is not recommended and should be done only when the drawing is not available electronically.
- .2 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.
- .3 It is recommended that each scanned drawing be opened and verified to ensure that the resolution, scale and border are of an acceptable quality.

EI.12 FINAL CHECKLIST

- .1 When the drawing file has gone through the PDF conversion, it is recommended to open it and verify the following:
 - .1 That the sheet size displayed is what was intended to be created (the size is viewable in the lower left corner of the drawing);
 - .2 That the orientation of the sheet is correct;
 - .3 That the line types, line weights and fonts match the CADD drawing.
 - .4 That the PDF file is in black and white;
 - .5 That each drawing is a single PDF file;
 - .6 That the PDF file is not password protected and printable.
- .2 If all the items are verified, the PDF file is useable.

EI.13 ADDITIONAL INFORMATION

- .1 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 F DEFINITIONS

F.1 TERMINOLOGY

TERMS	DESCRIPTION
As-builts/Record Drawings	See Record Drawings
Base Building	Refers to the building shell, as opposed to the tenant fit-up. It includes finished floors, exterior walls, interior core, finished ceilings with lighting, and other building systems for the planned general use of the building. Generally, the work for the base building is separate from the work for tenant-fit-ups
Circulation	Space used, primarily by people, to move from one area to another. It includes major as well as secondary aisles.
Client	A term that refers to the client, the client department or user department
Co-location	Placing items together for better organization
Consultant	The word refers both to an individual consultant, or a consultant team. The consultant is generally selected by PWGSC using a Request for Proposal.
Contractor	The company, organization or firm who is responsible for the construction of the project
Consolidation	Reducing the number of co-located items by placing them in a common floor facility to eliminate duplication of space.
Constant dollar estimate	This is an estimate expressed in terms of the dollars of a particular base fiscal year.
Cost Specialist	Refers to the cost estimating, planning and control team or an individual performing these functions.
Current dollar estimate	Refer to: <i>budget year dollars</i>
Budget-year dollars	This is an estimate based on costs arising in each FY of the project schedule, which is escalated to account for inflation and other economic factors affecting the period covered by the estimate Budget year dollars is also be referred to as Nominal dollars or Current dollars
Departmental Representative	The person designated in the contract, or by written notice to the Consultant or Contractor, to act for PWGSC for the purposes of the contract. It can also be a person designated in writing by the Departmental Representative to act on his/her behalf. In most cases, the PWGSC Project Manager is the Departmental Representative
EMV	Expected monetary value of risk event (i.e. cost or saving to the project if risk event occurs)



Final Certificate of Completion	A document issued by the Project Manager after the final inspection by the Project Acceptance Board. The final payment to the Contractor by PWGSC is based on the final certificate of completion
Final Inspection	The inspection performed by the Project Acceptance Board after project completion and after correction of deficiencies identified during Interim Inspection
Fit-up for initial occupancy	The preparation of accommodation for initial occupancy, in accordance with the federal Fit-up Standards. This fit-up may include alternations to the base building and its building systems.
Fit-up of existing space for reuse, Refit	Work required to alter space previously occupied by one organization to meet the requirements of a different organization.
Fit-Up Cost Limits	The funding limits for the fit-up of office accommodation. The limits are based on the average cost per useable square meter, for fit-up elements in specific urban centres across Canada, and are updated from time to time. The limits do not include soft costs or items funded by clients or under base building costs.
Fit-Up Items	Components that are installed removed or relocated to prepare the space for occupancy. They include partition walls, doors, frames, hardware, counters and cabinetry, modifications to base building systems, etc. as detailed in the Fit-up standards. Some base building components are included in consultant scope of work, such as the flooring and the ceiling finishes or telecommunications spaces and related environmental controls.
Focus Group	Group sessions held to establish qualitative requirements. They are most effective at the strategic planning level. They are used primarily to translate the Client Department's mission statement into organizational requirements and to assess planning alternatives
Full-time equivalent.	It measures of labour utilization in the federal government which approximates the actual number of persons "employed" by the government for carrying out the unit of work
Functional space equation	Identifies space requirements (in usable m2) by group along with summary of the total space required for all groups.
Gross Space	The total floor space
High risk	A project (or element of a project) may be assessed as high risk if one or more hazards exist in a significant way and, unless mitigated, would result in probable failure to achieve project objectives
Impact	The result of the occurrence of an event on the project either positive or negative (i.e. a schedule delay as a result of late delivery of a piece of equipment may have a high negative impact on a project; increased access to a construction site due to early departure of occupants in an office space may have positive



	impact on a project). The Impact of individual Risk Events can be qualified as low, medium, high or quantified in terms of time, cost (immediate cost or in-service cost (O&M)) or performance.
Interim Certificate of Completion	The certificates issued by Project manager following the Interim Inspection. Interim payment to the Contractor by PWGSC is based on the interim certificates. This payment takes place of a regular progress claim.
Interim Inspection	The inspection performed by the Project Acceptance Board after substantial completion of the project. A list of deficiencies is prepared, and subject to the Contractor's agreement to correct these, the Project Manager accepts the work and prepares the interim certificates
LEED®	Leadership in Energy & Environmental Design; an environmental rating system
Low risk	A project (or element of a project) should be assessed as low risk if hazards do not exist or have been reduced to the point where routine project management control should be capable of preventing any negative effect on the attainment of project objectives
Medium risk	A project (or element of a project) may be assessed as medium risk if some hazards exist but have been mitigated to the point that allocated resources and focused risk management planning should prevent significant negative effect on the attainment of project objectives
National Project Management System	The system used by PWGSC for management of its projects. It replaces the earlier Project Delivery System (PDS).
PI Forms	Product Information forms; used in commissioning documentation
Probability	The likelihood that an event will occur (i.e. Low, Medium, High)
Project Acceptance Board	A team assembled by the Project Manager to perform interim and final inspections of the Client Department's improvements.
PV Forms	Performance Verification forms; used in commissioning documentation
Record drawings	Drawings used to record field deviations, dimensional data, and changes or deviations from the 'Construction Document-Issued for Construction'. They indicate the work as 'actually' installed. They are also called as-builts
Rentable Space	Usable space plus space occupied by columns, convectors, elevator lobbies and washrooms. It also includes some common base building areas such as telephone and janitorial closets.
Request for Proposal	The document used for requesting consultant services. It includes the Terms of Reference as well as other contracting documents



Risk management	The art and science of identifying, analysing, and responding to risk factors throughout the life of a project and in the best interests of its objectives
Risk Event	A discrete occurrence that may affect the project for better or worse (i.e. late delivery of a piece of equipment is a “risk event” that may cause a schedule delay)
Scheduler	Refers to the Time Scheduler; also referred to as Time Specialist
Space Equation	A spreadsheet that reflects the Client’s organizational structure, functional requirements, and proposed planning alternatives. It is used to determine the total usable area required to accommodate the following: Open and enclosed workstations/worksettings; Support space; Special purpose space circulation factor; Building loss factor; Total population; and Total space required; and Summary by group
Space Optimization	Maximizing the utilization of space.
Special Purpose Spaces	Non-standard spaces required to accommodate activities that are essential to departmental programs. This space is often not suitable for conversion to office accommodation because of its special requirements. Examples include: laboratories, health units or clinics, meeting or training complexes which serve outside groups, processing space, departmental libraries, gymnasiums, warehouses, file or storage areas not allowed by the PWGSC Fit-Up Standards, trade shops, mailrooms, computer training rooms, cash offices and similar spaces requiring special service and security features and hearing rooms.
Support Space	Space for typical office support functions not included in workstation or circulation space but necessary for office operation. The Fit-Up Standards identify specific sizes and ratios for kitchenette / recycling centre / lunchroom / resource areas, shared equipment spaces, meeting rooms, quiet / touch down rooms, printer stations, reception / mail drop / waiting / display areas and coat / storage closets. Limited allowances for “Other” support spaces including non-dedicated workstations, storage rooms, LAN rooms, breakout rooms, interview rooms, training rooms, reading rooms etc. are also identified in the Fit-Up Standards.
Terms of Reference	A document prepared by PWGSC when requesting Consultant services, which forms part of the RFP and is also included in the Consultant Agreement with PWGSC.
Universal Footprint	One standard module which can be multiplied to accommodate



	all office functions including workstations, support space and special purpose space
Usable space, “Walk-on” Space	The space, in M ² , that is actually usable by the occupant. Measurement calculations do not include columns and convectors, building service areas and accessory areas.
Worksettings	Common work areas that support both collaboration and privacy. They include: teaming areas, non-dedicated workstations, privacy nooks, resource areas and multipurpose areas.
Workstations	An enclosed or open area dedicated for the use of individual employees.

F.2 ACRONYMS

ACRONYM	DESCRIPTION
A&E	Architecture & Engineering
AHJ	Authorities Having Jurisdiction
AMP	Asset Management Report
ASAE	American Society of Agricultural Engineers
ASHRAE	American Society of Heating, Refrigeration and Air Conditioning Engineers
ASPE	American Society of Plumbing Engineers
BCC	Building components and connectivity
BCR	Building Condition Report
BMM	Building Maintenance Manual
CAD	Computer aided drawing
CCDC	Canadian Construction Document Committee
CBIP	Commercial building incentive program
COE	PWGSC Centre of Expertise
EMCS	Energy Monitoring & Control System
EPA	Effective Project Approval
FHBRO	Federal Heritage Building Restoration Office
FOBS	Federal Office Building Standards (PWGSC)
FTE	Full-time equivalent
HCP	Heritage Conservation Program
HRSDC	Human Resources and Skills Development Canada
IT/MM	Information Technology/Multi-media
MMS	Maintenance management system
NBC	National Building Code
NCA	National Capital Area;
NCR	National Capital Region;
NFBC	National Farm Building Code
NGMA	National Greenhouse Manufacturers' Association
NMS	The National Master Specification used by PWGSC



NPMS	National Project Management System
OAA	Ontario Association of Architects
O&M	Operation and Maintenance
P&S	General Procedures and Standards
PA	Project administration
PI	Product Information
PD	Project Description
PM	Project Manager
PV	Performance verification
PWGSC	Public Works and Government Services Canada
RAIC	Royal Architectural Institute of Canada
RAS	Requirements and Standards
RS	Required Services
RSR	Resident site services
RPCD	Real Property Contracting Directorate
TOR	Terms of Reference