



**RETURN BIDS TO:**

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TPSGC

11 Laurier St. / 11 rue Laurier

Place du Portage, Phase III

Core 0B2 / Noyau 0B2

Gatineau, Québec K1A 0S5

Bid Fax: (819) 997-9776

**SOLICITATION AMENDMENT  
MODIFICATION DE L'INVITATION**

The referenced document is hereby revised; unless otherwise indicated, all other terms and conditions of the Solicitation remain the same.

Ce document est par la présente révisé; sauf indication contraire, les modalités de l'invitation demeurent les mêmes.

**Comments - Commentaires**

THIS DOCUMENT CONTAINS A SECURITY  
REQUIREMENT

**Vendor/Firm Name and Address**

Raison sociale et adresse du  
fournisseur/de l'entrepreneur

**Issuing Office - Bureau de distribution**

Consultant Services Division/Division des services  
d'experts-conseils  
L'Esplanade Laurier  
4th floor, East Tower  
140 O'Connor Street  
Ottawa  
Ontario  
K1A 0S5

<b>Title - Sujet</b> TECHNICAL ADVISOR SERVICES	
<b>Solicitation No. - N° de l'invitation</b> EJ078-200154/A	<b>Amendment No. - N° modif.</b> 004
<b>Client Reference No. - N° de référence du client</b> 20200154	<b>Date</b> 2019-09-30
<b>GETS Reference No. - N° de référence de SEAG</b> PW-\$\$FE-181-77692	
<b>File No. - N° de dossier</b> fe181.EJ078-200154	<b>CCC No./N° CCC - FMS No./N° VME</b>
<b>Solicitation Closes - L'invitation prend fin</b> <b>at - à 02:00 PM</b> <b>on - le 2019-10-23</b>	
<b>Time Zone</b> Fuseau horaire Eastern Daylight Saving Time EDT	
<b>F.O.B. - F.A.B.</b>	
<b>Plant-Usine:</b> <input type="checkbox"/> <b>Destination:</b> <input checked="" type="checkbox"/> <b>Other-Autre:</b> <input type="checkbox"/>	
<b>Address Enquiries to: - Adresser toutes questions à:</b> Bergevin, Carl	<b>Buyer Id - Id de l'acheteur</b> fe181
<b>Telephone No. - N° de téléphone</b> (343) 549-0747 ( )	<b>FAX No. - N° de FAX</b> ( ) -
<b>Destination - of Goods, Services, and Construction:</b> <b>Destination - des biens, services et construction:</b> PWGSC The Taxation Headquarters Buildings 875 Heron Road Ottawa, Ontario Canada	

Instructions: See Herein

Instructions: Voir aux présentes

<b>Delivery Required - Livraison exigée</b>	<b>Delivery Offered - Livraison proposée</b>
<b>Vendor/Firm Name and Address</b> Raison sociale et adresse du fournisseur/de l'entrepreneur	
<b>Telephone No. - N° de téléphone</b> <b>Facsimile No. - N° de télécopieur</b>	
<b>Name and title of person authorized to sign on behalf of Vendor/Firm</b> <b>(type or print)</b> <b>Nom et titre de la personne autorisée à signer au nom du fournisseur/</b> <b>de l'entrepreneur (taper ou écrire en caractères d'imprimerie)</b>	
<b>Signature</b>	<b>Date</b>

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875 HERON ROAD REHABILITATION  
PROJECT – TECHNICAL ADVISOR

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### **Document Changes**

The following change in the Request for Proposal document is effective immediately. This amendment will form part of the contract documents.

#### **1. APPENDIX C - PRICE PROPOSAL FORM**

**DELETE:**

Delete Appendix C – Price Proposal Form in its entirety.

**REPLACE WITH:**

Appendix C – Price Proposal Form included in this document.

#### **2. APPENDIX D – DOING BUSINESS WITH PWGSC DOCUMENTATION AND DELIVERABLES MANUAL**

**DELETE:**

Delete Appendix D - DOING BUSINESS WITH PWGSC DOCUMENTATION AND DELIVERABLES MANUAL in its entirety.

**REPLACE WITH:**

APPENDIX D – DOING BUSINESS WITH PWGSC DOCUMENTATION AND DELIVERABLES MANUAL included in this document.

### **Inquiries**

The following is in response to inquiries received in relation to this solicitation. This amendment will form part of the contract documents.

Number	Question(s)	Answer(s)
5	<p>Appendix G – GA.9: A very wide range of functions and expertise is listed. Some questions:</p> <ol style="list-style-type: none"><li><b>Archeology services</b> – What is the expected scope of these services? Is there any expectation that artifacts may be present of the site?</li><li><b>Art</b> – What is the expected scope of these services? Is this art consulting or the creation of art?</li><li><b>Ecology</b> – What is the expected scope of these services?</li></ol>	<p>The Proponent is expected to provide guidance to identify when further archeological services are required, and continue to support the project objectives. There is no expectation of artifacts at this time.</p> <p>The Proponent is expected to provide guidance and support as requested regarding public art for the interior and exterior of 875 Heron Road.</p> <p>The Proponent is expected to provide services sufficient to support the delivery of 875 Heron Road. Some studies</p>

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	<p>4. <b>Environmental psychology</b> – What is the expected scope of these services?</p> <p>5. <b>Futurology</b> – What is futurology? What is the expected scope of these services?</p> <p>6. <b>Project Controls</b> – Is this building controls or project management controls or something else? What is the expected scope of these services?</p> <p>7. <b>Project Management</b> – How does this project management relate to the services of the PWGSC Departmental Representative? What is the expected scope of these services?</p> <p>8. <b>Security</b> – Is this cyber security or physical security? What is the expected scope of these services?</p>	<p>which may require ecology are identified in Appendix G RS1.3.</p> <p>Environmental psychology services include examining the way users will interact with both the natural and built environment features which will in turn inform overall design. The Proponent is expected to incorporate environmental psychology in design to support the project objectives.</p> <p>Futurology is the study of the possible, probably and preferable futures, determination of likely future events and trends. The Proponent is expected to incorporate future foresight into their design to support the project objectives. Refer to Appendix G PD 4.1 for additional information.</p> <p>Project Controls refers to project management controls as defined by the Project Management Institute including cost control, schedule control, quality control, etc.</p> <p>The PWGSC Departmental Representative is employed by PWGSC, and represents the interests of PWGSC's. The Technical Advisor's project manager will provide best practice project management support to manage the Technical Advisor's duties and coordination. Refer to the Project Management Institute for project management best practices.</p> <p>Security means physical security of the facility and surrounding 875 Heron Road site. The Proponent is expected to provide guidance and support to meet the project objectives.</p>
6	<p>Appendix C identifies an Administrative Specialist - What is the expected scope of these services? Should this be added to Appendix G – GA.9?</p>	<p>Refer to Appendix G: RS GA.7. Administrative services may include but are not limited to organizing meetings, creating presentation materials, printing of support materials, taking meeting minutes, organizing information, managing non-disclosure agreements, buying office supplies, liaising with other stakeholders, etc. Administrative services are included in Appendix G: RS GA.9.</p>
7	<p>The RFP Documents require the Proponent to be an Architect or Engineer.</p>	<p>PWGSC does not indemnifies consultants. Refer to R1250D GC9.2 (2017-11-28) Insurance Requirements.</p>

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	<p>Architects and engineers are required by Ontario law to carry professional liability insurance for all services that they provide. This insurance only covers “usual and customary” services for architects and engineers. Our professional regulators consider it to be professional misconduct to offer uninsured services. An insurer is unlikely to consider provision of services related to art, ecology, environmental psychology, futurology, land surveying, geotechnical engineering and designated substances to be “usual and customary” and thus deny coverage which in turn may expose the architect or engineer to charges of professional misconduct.</p> <p>We can provide these services only if PWGSC indemnifies us. Alternatively, PWGSC can directly engage these services and have us coordinate them. Please advise on how this is to be resolved.</p>	<p>PWGSC has modified Appendix C by removing the Geotechnical Engineer from Table A. Please refer to the Document Changes section above.</p>
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APPENDIX C – PRICE PROPOSAL FORM

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**APPENDIX C - PRICE PROPOSAL FORM**

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

PROPOSERS SHALL NOT ALTER THIS FORM

**Project Title:** 875 HERON ROAD REHABILITATION PROJECT – TECHNICAL ADVISOR

**Name of Proponent:**

The following will form part of the evaluation process:

Time Based Fees (R1230D (2018-06-21), GC 5 - Terms of Payment– Architectural and/or Engineering Services)

**The role and responsibilities of individual required personnel listed within Table A are distinct and do not overlap, therefore personnel cannot provide multiple functions or expertise.**

**TABLE A**

REQUIRED PERSONNEL	HOURS* (Column A)	ALL-INCLUSIVE HOURLY RATES** (Column B)	TOTAL (Columns A x B)
Senior Project Manager	8,000	\$ -	\$ -
Intermediate Project Manager	5,000	\$ -	\$ -
Junior Project Manager	2,000	\$ -	\$ -
Senior Architect	4,000	\$ -	\$ -
Intermediate Architect	2,000	\$ -	\$ -
Junior Architect	1,000	\$ -	\$ -
Senior Civil Engineer	1500	\$ -	\$ -
Intermediate Civil Engineer	1000	\$ -	\$ -
Junior Civil Engineer	600	\$ -	\$ -
Senior Environmental Engineer	1500	\$ -	\$ -
Intermediate Environmental Engineer	1000	\$ -	\$ -
Junior Environmental Engineer	600	\$ -	\$ -
Senior Electrical Engineer	2,500	\$ -	\$ -
Intermediate Electrical Engineer	1,800	\$ -	\$ -
Junior Electrical Engineer	1,000	\$ -	\$ -
Senior IT Engineer	1,500	\$ -	\$ -
Intermediate IT Engineer	1,000	\$ -	\$ -
Junior IT Engineer	600	\$ -	\$ -

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Senior Mechanical Engineer	2,500	\$	-	\$	-
Intermediate Mechanical Engineer	1,800	\$	-	\$	-
Junior Mechanical Engineer	1,000	\$	-	\$	-
Senior Structural Engineer	1,500	\$	-	\$	-
Intermediate Structural Engineer	1,000	\$	-	\$	-
Junior Structural Engineer	600	\$	-	\$	-
Senior Sustainable Design Specialist	1,500	\$	-	\$	-
P3 Procurement Specialist	1,500	\$	-	\$	-
Facility and Maintenance Management Specialist	2,000	\$	-	\$	-
Administrative Specialist	4,000	\$	-	\$	-
Audio-Visual Specialist	600	\$	-	\$	-
Cost Estimation Specialist	600	\$	-	\$	-
Interior Designer	600	\$	-	\$	-
Landscape Architect	800	\$	-	\$	-
Security Consultant	400	\$	-	\$	-
Urban Planner	600	\$	-	\$	-
<b>TOTAL(applicable taxes extra)</b>					<b>\$</b>

Seniority of proposed resources shall be determined as follows:

Senior Resource: A resource with a minimum 15 years' experience delivering services of similar scope to that which is required for this Project under their respective discipline, including the Optional Services.

Intermediate Resource: A resource with 7 to 14 years' experience delivering services of similar scope to that which is required for this Project under their respective discipline, including the Optional Services.

Junior Resource: A resource with 2 to 6 years' experience delivering services of similar scope to that which is required for this Project under their respective discipline, including the Optional Services.

Personnel with an undefined seniority: A resource with 7+ years' experience delivering services of similar scope to that which is required for this Project under their respective discipline, including the Optional Services.

\* Number of Hours for Evaluation Purposes

The hours provided in Table A are for evaluation purposes only and are not a guarantee, commitment or undertaking that the actual services required will be reflective of the number of hours set out in Table A.

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

For the categories where a Senior, Intermediate and/or Junior Personnel is requested, the hourly all-inclusive rate must demonstrate a level of salary progression reflective of the seniority of the resource. For example, the hourly all-inclusive rate of a senior personnel must be equal to or greater than the hourly all-inclusive rate of the intermediate personnel and the hourly all-inclusive rate of an intermediate personnel must be equal to or greater than the hourly all-inclusive rate of the junior personnel within that category.

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The hourly rates for any given category of personnel cannot be \$0.00 or nil value. Failure to insert an hourly rate for each position listed will render your proposal non-responsive.

IN THE CASE OF ERROR IN THE EXTENSION OF PRICES, THE UNIT PRICE WILL GOVERN.

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TOTAL COST OF SERVICES FOR EVALUATION PURPOSES

**Total Evaluated Fees – Table A**

**\$.....**



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### APPENDIX C - PRICE PROPOSAL FORM (CONT'D)

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**The following will NOT form part of the evaluation process**

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#### **AGREEMENT PARTICULARS**

#### **TERMS OF PAYMENT – CALCULATION OF FEES**

The Maximum Amounts payable pursuant to GC5.2 c. v. of R1230D has been established by Canada for the Required Services described and is set out below.

#### **REQUIRED SERVICES**

Required Services (RS)	Required Services Description	Maximum Amount Payable
RS 1	Pre-Procurement	\$2,400,000.00
RS 2	Procurement	\$1,300,000.00
<b>MAXIMUM AMOUNT PAYABLE FOR REQUIRED SERVICES (applicable taxes extra)</b>		<b>\$3,700,000.00</b>

The Consultant will be paid for actual services performed using the applicable hourly rate(s) in Table A for such services in accordance with GC5.2 c) (R1230D (2015 02 25)) Time Based Fee. The maximum amount payable under the Agreement may not exceed the sum specified except in accordance with GC5.8 of R1230D and with prior written authorization of Canada as required pursuant to GC5.2 c. v.

#### **DISBURSEMENTS**

At cost without allowance for mark-up or profit, supported by invoices/receipts - see clause R1230D (2018-06-21), GC 5 - Terms of Payment– Architectural and/or Engineering Services, section GC5.12 Disbursements.

The following allowances (excluding applicable taxes) will be incorporated into the resulting contract.

<b>DISBURSEMENTS</b>	<b>\$100,000.00</b>
<b>MAXIMUM AMOUNT PAYABLE FOR REQUIRED SERVICES (applicable taxes extra)</b>	<b>\$3,800,000.00</b>

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## APPENDIX C - PRICE PROPOSAL FORM (CONT'D)

The following will NOT form part of the evaluation process

### OPTIONAL SERVICES –PART 1

The Consultant hereby grants to Canada an irrevocable option to acquire the services specified under the same terms and conditions as contained in the Contract, and in accordance with the rates and fees identified below. Canada is not obligated to exercise this option. This option shall only be exercised by the Contracting Authority by providing notification in writing through a formal Contract Amendment.

The Maximum Amounts payable pursuant to GC5.2 c. v. of R1230D has been established by Canada for the Optional Services PART 1 described below.

Optional Services - Maintenance	Services Description	Maximum Amount Payable
OS 1	Pre-Procurement - Maintenance	\$1,850,000.00
OS 2	Procurement - Maintenance	\$850,000.00
<b>MAXIMUM AMOUNT PAYABLE FEES FOR OPTIONAL SERVICES - PART 1 (applicable taxes extra)</b>		<b>\$2,700,000.00</b>

The Consultant will be paid for actual services performed using the applicable hourly rate(s) in Table A for such services in accordance with GC5.2 c) (R1230D (2015 02 25)) Time Based Fee. The maximum amount payable under the Agreement may not exceed the sum specified except in accordance with GC5.8 of R1230D and with prior written authorization of Canada as required pursuant to GC5.2 c. v.

### DISBURSEMENTS

At cost without allowance for mark-up or profit, supported by invoices/receipts - see clause R1230D (2018-06-21), GC 5 - Terms of Payment– Architectural and/or Engineering Services, section GC5.12 Disbursements.

<b>DISBURSEMENTS</b>	<b>\$0.00</b>
<b>MAXIMUM AMOUNT PAYABLE FOR OPTIONAL SERVICES – PART 1 (applicable taxes extra)</b>	<b>\$2,700,000.00</b>

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## APPENDIX C - PRICE PROPOSAL FORM (CONT'D)

The following will NOT form part of the evaluation process

### OPTIONAL SERVICES – PART 2

The Consultant hereby grants to Canada an irrevocable option to acquire the services specified under the same terms and conditions as contained in the Contract, and in accordance with the rates and fees identified below. Canada is not obligated to exercise this option. This option shall only be exercised by the Contracting Authority by providing notification in writing through a formal Contract Amendment.

The Maximum Amounts payable pursuant to GC5.2 c. v. of R1230D has been established by Canada for the Optional Services PART 2 described below.

Optional Services (OS)	Services Description	Maximum Amount Payable
OS 3	Design & Construction	\$2,400,000.00
OS 4	Post Construction	\$350,000.00
<b>MAXIMUM AMOUNT PAYABLE FOR OPTIONAL SERVICES – PART 2 (applicable taxes extra)</b>		<b>\$2,750,000.00</b>

The Consultant will be paid for actual services performed using the applicable hourly rate(s) in Table A for such services in accordance with GC5.2 c) (R1230D (2015 02 25)) Time Based Fee. The maximum amount payable under the Agreement may not exceed the sum specified except in accordance with GC5.8 of R1230D and with prior written authorization of Canada as required pursuant to GC5.2 c. v.

#### **DISBURSEMENTS**

At cost without allowance for mark-up or profit, supported by invoices/receipts - see clause R1230D (2018-06-21), GC 5 - Terms of Payment– Architectural and/or Engineering Services, section GC5.12 Disbursements.

The following allowances (excluding applicable taxes) will be incorporated into the resulting contract.

<b>DISBURSEMENTS</b>	<b>\$50,000.00</b>
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<b>MAXIMUM AMOUNT PAYABLE FOR OPTIONALSERVICES - PART 2 (applicable taxes extra)</b>	<b>\$2,800,000.00</b>
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## APPENDIX C - PRICE PROPOSAL FORM (CONT'D)

The following will NOT form part of the evaluation process

### OPTIONAL SERVICES –PART 3

The Consultant hereby grants to Canada an irrevocable option to acquire the services specified under the same terms and conditions as contained in the Contract, and in accordance with the rates and fees identified below. Canada is not obligated to exercise this option. This option shall only be exercised by the Contracting Authority by providing notification in writing through a formal Contract Amendment.

The Maximum Amounts payable pursuant to GC5.2 c. v. of R1230D has been established by Canada for the Optional Services PART 3 described below.

Optional Services Maintenance	Services Description	Maximum Amount Payable
OS 5	Design & Construction - Maintenance	\$1,250,000.00
OS 6	Post Construction - Maintenance	\$250,000.00
<b>MAXIMUM AMOUNT PAYABLE FOR OPTIONAL SERVICES - PART 3 (applicable taxes extra)</b>		<b>\$1,500,000.00</b>

The Consultant will be paid for actual services performed using the applicable hourly rate(s) in Table A for such services in accordance with GC5.2 c) (R1230D (2015 02 25)) Time Based Fee. The maximum amount payable under the Agreement may not exceed the sum specified except in accordance with GC5.8 of R1230D and with prior written authorization of Canada as required pursuant to GC5.2 c. v.

### DISBURSEMENTS

At cost without allowance for mark-up or profit, supported by invoices/receipts - see clause R1230D (2018-06-21), GC 5 - Terms of Payment– Architectural and/or Engineering Services, section GC5.12 Disbursements.

<b>DISBURSEMENTS</b>	<b>\$0.00</b>
<b>MAXIMUM AMOUNT PAYABLE FOR OPTIONAL SERVICES – PART 3 (applicable taxes extra)</b>	<b>\$1,500,000.00</b>

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**ESCALATION OF HOURLY RATES**

The firm hourly rates detailed in the Required Services Table (located in Table A of Appendix C) will be adjusted (the "Escalation") annually on the start date of each new Contract Year (starting with Contract Year 4) based on the annual average percentage increase (decrease) in the monthly index of the Consumer Price Index for Canada, All-Items (Not Seasonally Adjusted), published in Statistics Canada Table 18-10-0164-01 Architectural, engineering and related services price index, quarterly, for the 12-month period ending 3 months prior to the new Contract Year Start date.

The GC5.2 c.v. Maximum Amounts Payable set out in this Price Proposal are not affected by any escalation of hourly rates and will not be adjusted as a result of any such escalation.

This will be calculated using the following formula:

A = Sum of indices for the 12 months ending 3 months prior to the end of the third year

B = Sum of indices for the 12 months ending same month as A of the preceding year

Escalation% = [(A/B) - 1] \* 100

**For Clarity:**

Assuming that the contract was signed on July 1, 2012, the start of the 4th Year of the contract would be July 1, 2015 and firm hourly rates would be increased by 1.72% to come up to hourly rates applicable to Year 4, based on the following assumptions:

Preceding Year 12 month period = May 2013 - April 2014 Sum of Indices = 1,481.4

Current Year 12 month period = May 2014 - April 2015 Sum of Indices = 1,506.9

Escalation = ((1,506.9 / 1,481.4) - 1) \* 100

Escalation = 1.72%

To determine the Contract Year 5 rates in the example, the Contract Years 4 rates determined above would be adjusted using the same Statistics Canada Table and same formula with data for the two 12 month periods May 2016 - April 2017.

**Discontinuation of Economic Price Adjustment Index**

If an index set out in this Contract is discontinued or should be re-baselined by Canada, the parties agree to immediately negotiate in good faith a replacement index.

**END OF PRICE PROPOSAL FORM**

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APPENDIX D – DOING BUSINESS WITH PWGSC DOCUMENTATION AND DELIVERABLES MANUAL



Public Services and  
Procurement Canada

Services publics et  
Approvisionnement Canada

Canada

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# Doing Business with PWGSC Documentation and Deliverables Manual



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## Revisions

Version	Date	Description
0.1	August 14, 2017	Draft version for consultation.
1.0	January 12, 2018	Original Issuance
1.1	January 31, 2019	Update to cost submission format, and minor corrections / updates.

# **1 General**

## **1.1 Effective Date**

January 31, 2019

## **1.2 Authority**

This manual is issued by the authority of the Director General, Technical Services, Real Property Services (RPS), Public Works and Government Services Canada (PWGSC).

## **1.3 Purpose**

This document provides architectural and engineering (A&E) consultants with the requirements for producing deliverables for PWGSC projects in order to ensure a well-documented design process, and facilitate review by PWGSC staff.

## **1.4 Scope**

This document shall apply to design-bid-build projects undertaken by PWGSC on its own behalf as well as for other government departments (OGDs). It is applicable to all regions of PWGSC and can be supplemented with regional addendum.

## **1.5 Harmonization with Terms of Reference**

This document shall be used in conjunction with the project's Project Brief / Terms of Reference (TOR). In case of a conflict between documents, the requirements of the TOR prevail over those of this document.

## **1.6 Departmental Name Change**

In the fall of 2015, Public Works and Government Services Canada (PWGSC) was renamed Public Services and Procurement Canada (PSPC).

This name change is occurring in a phased approach, and for most documents PSPC should be used. However, all contract documents shall use the legal name Public Works and Government Services Canada (PWGSC) until the name has been changed in legislation.

## **1.7 Terminology**

This document utilizes the following terminology:

- “shall” is used to express a requirement, a provision the Consultant is obligated to meet; “should” is used to express a recommendation; and
- “may” is used to express an option or that which is permissible within the limits of this document.

## 1.8 Definitions

**Addenda:** Changes to the construction documents or tendering procedures, issued during the tendering process.

**Construction Documents:** The drawings and specifications (including addenda).

**Drawings:** The graphic means of showing work to be done, as they depict shape, dimension, location, quantity of materials and relationship between building components.

**Reports:** Written account given of a particular matter after thorough investigation or consideration prepared by the Consultant.

**Specifications:** Written descriptions of materials and construction processes in relation to quality, colour, pattern, performance and characteristics of materials, installation and quality of work requirements.

## 2 Construction Documents

### 2.1 General

This section provides direction to Consultant firms on the preparation of construction documents (namely specifications and drawings) to be submitted to PWGSC for real property projects across Canada.

Specifications, drawings, and addenda shall be complete and clear so that contractors can prepare bids without guesswork.

#### 2.1.1 Principles of PWGSC Contract Documents

Contact documents shall be prepared based on common public procurement principles. PWGSC does not use Canadian Construction Documents Committee (CCDC) documents.

PWGSC is responsible for preparing and issuing the construction contract and the terms and conditions as well as all other related bidding and contractual documents. For detailed information, the standard acquisition clauses and conditions commonly used by PWGSC in the contracting process are available on the [buyandsell.gc.ca](http://buyandsell.gc.ca) website.

#### 2.1.2 Translation

When bilingual documents are required in the Terms of Reference, all documentation including drawings, specifications, reports as well as all bidder questions shall be in both official languages.

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

#### 2.1.3 Construction Documents Definitions

Unless otherwise indicated in the Project Brief / Terms of Reference, construction document submissions (33%, 50 or 66%, 99%, and 100% / final) shall meet the definitions outlined below. Further discipline based requirements may be included in the TOR.

- 33%: shall demonstrate general intent of design and compliance and alignment with relevant standards. Summary specification required, but not a full specification.
- 50% or 66%: shall show full system, all components, requirements, and lack only minor details on drawings. Specifications shall be well advanced and contain major work and material requirements and lack only minor details.
- 99%: shall be for final review by PWGSC, lacking no detail and complete with a project specific specification.
- 100% (or final): shall address comments by PWGSC as required, signed and sealed by the responsible design professional in compliance with various provincial jurisdiction requirements, ready for tender.

#### 2.1.4 Quality Assurance

It is the sole responsibility of the Consultant firms to undertake their own quality control process and to review, correct, and coordinate their documents (between disciplines). The Consultant shall also ensure the constructability of their design.

### **2.1.5 Quality Assurance Deliverables**

For every construction document submission (33 %, 50 % or 66 %, 99 % and 100 %), the Consultant shall provide:

- a completed and signed Checklist for the Submission of Construction Documents (see Appendix A); and
- an index as per Appendix B.

### **2.1.6 Terminology & Quantities**

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

Notations such as “verify on site,” “as instructed,” “to match existing,” “example,” “equal to,” “equivalent to,” and “to be determined on site by Departmental Representative” shall not be indicated in specifications nor in drawings, as such wording promotes inaccurate and inflated bids.

Construction documents shall permit bidders to bid accurately. If a precise quantity is impossible to identify (e.g. cracks to be repaired), then provide an estimated quantity for bidding purposes (to be used in conjunction with unit prices). Ensure that the terminology used throughout construction documents is consistent and does not contradict applicable codes and standards.

### **2.1.7 Units of Measure**

All units of measure within drawings and specifications shall be based on the International System of Units (SI).

## **2.2 Drawings**

### **2.2.1 General**

Drawings shall be prepared in accordance with the [PSPC National CADD Standard](#) and the Canadian Standards Association CSA B78.5-93: *Computer-Aided Design Drafting (Buildings)*. Drawing shall also meet the following criteria:

- dimensions shall be in metric only (no dual dimensioning);
- no trade names present on any drawings; and
- no specification-type notes are on any drawing.

### **2.2.2 Information to be Included**

Drawings should show the quantities of the elements, the configuration of the project, the dimensions, and details of how the work is constructed. There should be no references to future work or information that will be changed by future addenda. The scope of work should be clearly detailed, and elements not in the Contract should be eliminated or kept to an absolute minimum.

### **2.2.3 Title Blocks and Revision Notes**

PWGSC title block shall be used for drawings and sketches (including addenda).

The percent of drawing completion should be included in the revision notes. Revision notes shall be inputted during design development, but cleared for 100% complete drawing (ready for tender).

## 2.2.4 Drawing Numbers

Drawings should be numbered in sets according to the type of drawing and the discipline involved as indicated in the following table. The requirements of the *PSPC National CADD Standard* supersede these requirements, where warranted.

Discipline	Drawing
Demolition	D01, D02, etc.
Architecture	A01, A02, etc.
Civil	C01, C02, etc.
Landscaping	L01, L02, etc.
Mechanical	M01, M02, etc.
Electrical	E01, E02, etc.
Structural	S01, S02, etc.
Interior Design	ID01, ID02, etc.

## 2.2.5 Presentation Requirements

Present the drawings in sets, providing the applicable demolition, site plan, civil, landscaping, architecture, structural, mechanical, and electrical drawings in that order. All drawings should be of uniform standard size.

## 2.2.6 Legends

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

## 2.2.7 Schedules and Tables

Where schedules or tables occupy entire sheets, locate them at the back of each set of drawings for convenient reference.

## 2.2.8 North Arrow

Include a north arrow on all plans. Orient all plans in the same direction for easy cross-referencing. Wherever possible, lay out plans so that the north point is at the top of the sheet.

## 2.2.9 Drawing Symbols

Follow generally accepted drawing conventions, understandable by the construction trades and in accordance with PWGSC publications.

## 2.2.10 As-Built Drawings

As-built drawings are official record drawings and shall represent as constructed conditions including location and size of equipment, devices, plumbing lines, mechanical and electrical equipment, structural elements etc. As-built drawings shall be updated in CAD, handwritten notes are not acceptable.

## 2.2.11 Submission Format

Unless otherwise stated in the Terms of Reference, drawing submissions shall be in electronic and hard copy format.

### 2.2.11.1 Drawing Hard Copy Deliverable Format

Drawing submitted in hard copy shall be:

- printed to scale with black lines on white paper;
- bound with staple or other means into sets, where presentations exceed 50 sheets, the drawings for each discipline may be bound separately for convenience and ease of handling; and
- of a paper size as agreed to with the Departmental Representative.

### 2.2.11.2 Drawing Electronic Copy Deliverable Format

Drawing submitted electronically shall be provided:

- without password protection or printing restrictions;
- in two formats:
  - PDF/E-1 (in compliance with ISO 24517-1);
  - .dwg format; and
- in accordance with Appendix D.

## 2.3 Building Information Modelling (BIM)

PWGSC is committed to using non-proprietary or “OpenBIM” standards. As such, the Consultant is not required to use any specific proprietary software format. For the sake of legacy information quality, the Consultant shall use the international standards of interoperability for BIM (IFC) in all cases where models are submitted. Consultants shall work with software that is compliant to this standard.

Where used, BIM shall not replace the submission requirements outlined by this document. Rather, consultants shall submit models in addition requirements outlined herein.

Where BIM is used, models and modelled information shall be submitted in the following two formats:

- .native (whichever format is native to the Modelling software used by the Consultant);
- .ifc (Industry Foundation Classification – IFC4 – [ISO 16739:2013](#)); and

All Modelled Information, and Model Information Exchanges shall conform to:

- Project-specific requirements, such as they are laid out in the Project Execution Plan, Project Documentation and Model Element Table; and
- The project-identified BIM Standards & Guidelines.

Models for electronic submissions shall be organized as per Appendix D.

## 2.4 Specifications

### 2.4.1 National Master Specification

Specifications prepared for PWGSC shall follow the most current version of the [National Master Specification \(NMS\)](#) format offered by the National Research Council.

The Consultant has overriding responsibility for the content of construction project specifications. For each specification, he or she shall edit, amend, and supplement the NMS template as deemed necessary to produce an appropriate project specification free of conflict and ambiguity. The Consultant should refer to the latest *NMS User's Guide* and *NMS Development Guide* issued by the National Research Council for further guidance on using the NMS.

## 2.4.2 Index

Specifications shall include an index which list all specification sections, including numbers of pages, as well as the division and section names in the format shown in Appendix B.

## 2.4.3 Specification Organization

Narrow scope sections describing single units of work should be used for complex work. Broad scope sections may be used for less complex work. The Consultant shall use consistently for the entire specification either the NMS 1/3 page format, the NMS 2/3-page format or the Construction Specifications Canada (CSC) full-page format.

Start each section on a new right hand page and show the PWGSC project number, NMS section title, NMS section number, page number, and specification date on each page. The project title, and Consultant's name are not to be indicated.

## 2.4.4 Standards

Code and standard references in the NMS may not be up to date, the Consultant shall ensure that the project specification use the current applicable edition of all references quoted.

## 2.4.5 Specifying Materials

Specifications should make use of generic names in referencing construction materials. The Consultant should refer to the latest version of the *NMS Development Guide* issued by the National Research Council for further details. The term "Acceptable Manufacturers" shall not be used, as this restricts competition and does not ensure the actual material or product will be acceptable.

### 2.4.5.1 Alternate Products and Materials

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

### 2.4.5.2 Sole Sourcing

Sole sourcing of materials and/or work is only allowed in exceptional and justifiable circumstances. Prior to including sole source materials and/or work, the Consultant shall contact the Departmental Representative to obtain approval for the sole sourcing. Consultants shall provide proper justification for all individual sole source requirements.

Sole sourcing for materials and work may be required when performing work on existing proprietary systems, such as fire alarm systems, building automation systems (BAS) etc.

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

Designated Contractor

- .1 Retain the services of [\_\_\_\_\_] to do the work of this section.

Wording for the sole source of building automation system should be in Part 1 as follows:

Designated Contractor

- .1 Retain the services of [\_\_\_\_\_] or its authorized representative to complete the work of all building automation system sections.

Wording for the sole source of building automation system should be in Part 2 as follows:



## Materials

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

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

### Acceptable Materials

- .1 The only acceptable materials are [\_\_\_\_\_].

## 2.4.6 Measurement for Payment

The measurement for payment shall be provided in lump sum or unit prices.

### 2.4.6.1 Unit Prices

Unit prices should only be used in instances where the quantity can only be roughly estimated (e.g. earth work). The approval of the Departmental Representative shall be sought in advance of their use. In each applicable NMS section where unit prices are used, add new or replace paragraph title “Measurement for Payment” with “Unit Prices.” and use the following wording:

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

Provide a unit price table, sample shown below, to designate the work to which a unit price arrangement applies. The table shall include:

- the price per unit and the estimated total price for each item listed;
- a complete description of each type of work covered; and
- items as described in the referenced specification section.

Item	Specification Reference	Class of Labour, Plant or Material	Unit of Measurement	Estimated Quantity	Price per Unit GST/HST extra	Estimated Total Price GST / HST extra
<b>TOTAL ESTIMATED AMOUNT</b>						

## 2.4.7 Cash Allowances

Construction documents shall be complete and contain all of the requirements for the contractual work. Cash allowances are to be used only under exceptional circumstances (i.e. utility companies, municipalities), where no other method of specifying pricing is appropriate.

To include cash allowances, obtain approval from the Departmental Representative in advance, and use Section 01 21 00 – Allowances of the NMS to specify the criteria.

## 2.4.8 Warranties

The 12-month warranty period specified in PWGSC’s standard acquisition clauses and conditions with regard to the contract should typically be retained as is. Extended warranties should only be used where experience has shown that serious defects are likely to appear after expiry of the standard one-year warranty period. When necessary to extend beyond the 12 month warranty period,

use the following wording in Part 1 of the applicable technical sections, under the heading “Extended Warranty”:

For the work of this Section [\_\_\_\_], the 12 month warranty period is extended to [\_\_\_\_] months.

Where the extended warranty is intended to apply to a particular part of a specification section, modify the previous text as follows:

For [\_\_\_\_], the 12 month warranty period is extended to [\_\_\_\_] months.

#### **2.4.9 Miscellaneous Requirements**

Paragraphs noted as “Scope of Work” shall not be included. Within Part 1 – General of specifications, the paragraphs “Summary” and “Section Includes” shall not be utilized.

#### **2.4.10 Specification Coordination**

All sections of the specifications shall be coordinated, including the “Related Sections” portion of specifications and appendices. References to non-existent sections shall not be present within the specifications.

#### **2.4.11 Regional Guide**

The Consultant should contact the Departmental Representative to obtain the region’s requirements for Division 01 (General Requirements) or other short-form specifications as appropriate.

#### **2.4.12 Health and Safety**

All project specifications are required to include Section 01 35 29 – Health and Safety Requirements. Confirm with the Departmental Representative to determine if there are any instructions to meet regional requirements.

#### **2.4.13 Subsurface Investigation Reports**

If required, subsurface investigation report(s) shall be included after Section 31, and the following paragraph added to Section 31:

Subsurface Investigation Report(s)

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

If the Departmental Representative determines that it is not practical to include the subsurface investigation report(s), alternate instructions will be provided.

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

In addition to providing the subsurface investigation report(s), the foundation information required by the current *National Building Code of Canada* (Division C, Part 2, 2.2.4.6) shall be included on foundation drawings.

#### **2.4.14 Prequalification and Pre-Award Submissions**

Do not include in the specifications any mandatory contractor and/or subcontractor prequalification or pre-award submission requirements that could become a contract award condition. If a

prequalification process or a pre-award submission is required, contact the Departmental Representative.

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

#### **2.4.15 Contracting Issues**

Specifications describe the workmanship and quality of the work and shall not contain any contracting issues. Division 00 of the NMS is not used by PWGSC, except for the Seals page 00 01 07 and the Table of Contents 00 01 10. In specifications, remove all references to the following:

- general instructions to bidders;
- general conditions;
- Canadian Construction Documents Committee (CCDC) documents;
- priority of documents;
- security clauses and clearances;
- terms of payment or holdback;
- the tendering process;
- bonding requirements;
- insurance requirements;
- alternative and separate pricing;
- site visits (mandatory or optional); and
- the release of lien and deficiency holdbacks.

#### **2.4.16 Specification Submission Format**

Unless otherwise stated in the Terms of Reference, specification submissions shall be in electronic and hard copy format.

##### **2.4.16.1 Specification Hard Copy Deliverable Format**

Specifications submitted in hard copy shall be printed on both sides of 216 mm x 280 mm white bond paper.

##### **2.4.16.2 Specification Electronic Copy Deliverable Format**

Specifications submitted electronically shall be:

- provided in PDF/A (in compliance with ISO 19005) format, without password protection and printing restrictions; and
- in accordance with Appendix D.

### **2.5 Addenda**

#### **2.5.1 Format**

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

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

No Consultant information (name, address, phone #, Consultant project #, etc.) should appear in addenda or their attachments (except on sketches).

## **2.5.2 Content**

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

Where there are many or major changes to a section or drawing, consider deleting the entire section or drawing and replacing it with a new version.

## **3 Cost Estimates**

### **3.1 Cost Estimates Submission Formats**

#### **3.1.1 Format**

Construction cost estimates for projects shall be prepared in elemental format, in accordance with UniFormat as issued by Construction Specifications Canada and the Construction Specifications Institute.

#### **3.1.2 Contents**

All cost estimates shall contain the following:

- introduction narrative complete with an outline description of the cost estimate basis;
- description of information obtained and used in the cost estimate including the date received;
- listing of notable inclusions;
- listing of notable exclusions;
- listing of items/issues carrying significant risk;
- summary of the itemized cost estimate;
- itemized breakdown of cost estimate by elemental format for Class B, C, and D; and
- itemized breakdown of costs estimate in both elemental format and National Master Specification division format for Class A, including measured quantities, unit rate pricings and amounts for each item of work.

Allowances, if deemed necessary by Consultant, shall contain the following:

- design allowance to cover unforeseen items during design phase;
- escalation allowance for changes in market conditions between the date of the cost estimate and the date tender is called;
- construction allowance to cover unforeseen items during construction; and
- the basis of calculations of the above allowances.

### **3.2 Classes of Cost Estimates for Construction Projects**

PWGSC applies a detailed, four-level classification using the terms Class A, B, C and D. Apply these estimate classifications at the project stages as defined in the TOR. For projects required to be submitted to Treasury Board (TB) for approval: an indicative estimate shall be at least a Class D and a Substantive Estimate shall be at least a Class B.

#### **3.2.1 Class D (Indicative) Estimate**

Based upon a comprehensive statement of requirements, an outline of potential solutions and/or functional program, this estimate is to provide an indication of the final project cost that will enable ranking to be made for all the options being considered. This cost estimate shall be prepared in elemental format. The level of accuracy of a Class D cost estimate shall be such that no more than a 20% design allowance is required.

#### **3.2.2 Class C Estimate**

Based on schematic/conceptual design and/or comprehensive list of project requirements, this estimate shall be adequately detailed and shall be sufficient for making the correct investment decision. This cost estimate shall be based on measured quantities of all items of work and prepared in elemental analysis format. The level of accuracy of a Class C cost estimate shall be such that no more than a 15% design allowance is required.

### **3.2.3 Class B (Substantive) Estimate**

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 shall provide for the establishment of realistic cost objectives and be sufficient to obtain effective project approval.

This cost estimate shall be based on measured quantities of all items of work and prepared in elemental format. The level of accuracy of a Class B cost estimate shall be such that no more than a 10% design allowance is required.

### **3.2.4 Class A (Pre-Tender) Estimate**

Based on completed construction drawings and specifications prepared prior to calling competitive tenders, this estimate shall be sufficient to allow a detailed reconciliation and/or negotiation with any contractor's tender submission. This cost estimate shall be based on fully measured quantities of all items of work and prepared in both elemental and Trade division format as per MasterFormat™. The level of accuracy of a Class A cost estimate shall be such that no more than a 5% design allowance is required.

## 4 Project Schedules

### 4.1 Schedule Format

Project schedules shall be submitted in the .mpp file extension (compatible with MS Project). The schedule shall include:

- major and minor milestones;
- activities representing discrete elements of work assigned to one person which:
  - are named using verb-noun combination (i.e. Review Design Development Report);
  - contain realistic durations in days;
- project logic linking activities with appropriate relationships finish-start (FS), finish-finish (FF), start-start (SS); and
- Identification of the critical path activities.

### 4.2 Progress Report

The progress report shall detail the progress of each activity up to the date of the report. It shall also include any logic changes made, both historic and planned; projections of progress and completion; as well as the actual start and finish dates of all activities being monitored.

The contents of each progress report will vary depending on the requirements at each project phase. A progress report should include:

- an executive summary;
- a narrative report;
- a variance report;
- a criticality report;
- an exception report (as required);
- the master schedule with cash flow projections; and
- the detailed project schedule (network diagram or bar charts).

#### 4.2.1 Executive Summary

The executive summary should provide a synopsis of narrative, variance, criticality and exception report, and is not to exceed one page.

#### 4.2.2 Narrative Report

The project narrative shall detail the work performed to date, comparing work progress to planned, and presenting current forecasts. This report should summarize the progress to date, explaining current and possible deviations and delays and the required actions to resolve delays and problems with respect to the Detailed Schedule, and Critical Paths.

#### 4.2.3 Variance Report

The variance report, with supporting schedule documentation, should detail the work performed to date and compare work progress to work planned. It should summarize the progress to date and explain all causes of deviations and delays and the required actions to resolve delays and problems with respect to the detailed schedule and critical paths. The variance report shall be presented in the following format:

Paper size: Letter  
Paper format: Portrait  
Title format: Project Title, Report Type, Print Date, Data Date, Revision Block  
Body text: Narratives for each report to match other reports  
Columns: Activity ID, Activity Name, Planned Finish, Revised Finish, Variance, Activity % Complete

#### 4.2.4 Criticality Report

The criticality report identifies all activities and milestones with negative, zero, and up to five days' Total Float. It is used as a first sort for ready identification of the critical paths, or near-critical paths, through the entire project. The criticality report shall be presented in the following format:

Paper size: Letter  
Orientation: Portrait  
Title format: Project Title, Report Type, Print Date, Data Date, Revision Block  
Body text: Narratives for each report to match other reports  
Columns: Activity ID, Activity Name, Duration, Start, Finish, Activity % Complete, Total Float

#### 4.2.5 Exception Report

The exception report shall be provided when unforeseen or critical issues arise. The Consultant shall advise the Departmental Representative and submit the details and proposed solutions in the form of an exception report. The report shall include sufficient description and detail to clearly identify:

- scope changes, including identifying the nature, reason, and total impact of all identified and potential project scope changes affecting the project;
- delays and accelerations, including identifying the nature, reason, and total impact of all identified and potential duration variations; and
- options enabling a return to the project baseline, including Identifying the nature and potential effects of all proposed options for returning the project within the baselined duration.

The exception report shall be provided in the following format:

Paper size: Letter  
Orientation: Portrait  
Title format: Project Title, Report Type, Print Date, Data Date, Revision  
Body text: Narrative to match other reports

Paper size: Letter  
Orientation: Landscape  
Title format: Project Title, Report Type, Print Date, Data Date, Revision  
Columns: Activity ID, Activity Name, Duration, Remaining Duration, Start, Finish, Total Float



#### **4.2.6 Master Schedule**

A master schedule including cash projection shall be provided in the following format:

Paper size: 11X17  
Orientation: Landscape  
Columns: Activity ID, Activity Name, Duration, Activity % Complete, Start, Finish, Total Float  
Footer format: Project Title, Report Type, Print Date, Data Date, Revision Block  
Sorting: Early Start, then Early Finish, then Activity ID based on the WBS.

#### **4.2.7 Detailed Project Schedule**

A detailed project schedule shall be provided along with a network diagram or bar charts in the following format:

Paper size: 11X17  
Orientation: Landscape  
Columns: Activity ID, Activity Name, Duration, Activity % Complete, Start, Finish, Total Float  
Footer format: Project Title, Report Type, Print Date, Data Date, Revision Block  
Sorting: Early Start, then Early Finish, then Activity ID based on the WBS.

## Appendix A Checklist for the Submission of Construction Documents

<b>Date:</b>	
<b>Project Title:</b>	<b>Project Location:</b>
<b>Project Number:</b>	<b>Contract Number:</b>
<b>Consultant's Name:</b>	<b>PWGSC Departmental Representative</b>
<b>Review Stage (stages may vary at discretion of project team):</b> 33% <input type="checkbox"/> 50% or 66% <input type="checkbox"/> 99% <input type="checkbox"/> 100% <input type="checkbox"/>	

<b>Drawings\Design</b>			
<b>Item</b>	<b>Verified by</b>	<b>Explanations</b>	<b>Action By</b>
<b>1 Index</b>			
<b>1a</b> The index shows a complete listing of drawing titles and numbers.			
<b>2 Title Blocks</b>			
<b>2a</b> The title block is as per the <i>PWGSC National CADD Standard</i> .			
<b>3 Units</b>			
<b>3a</b> All units of measure are metric.			
<b>4 Trade Names</b>			
<b>4a</b> Trade names are not used.			
<b>5 Specification Notes</b>			
<b>5a</b> There are no specification-type notes.			
<b>6 Terminology</b>			
<b>6a</b> The term "Departmental Representative" is used instead of "Engineer," "PWGSC," "Owner," "Consultant," or "Architect."			
<b>6b</b> Notations such as "verify on site," "as instructed," "to match existing," "example," "equal to," "equivalent to," and "to be determined on site by" are not used.			
<b>7 Information to be included</b>			
<b>7a</b> The project quantities, configurations, dimensions, and construction details are included.			
<b>7b</b> References to future work and elements not in the tender documents do not appear or are kept to an absolute minimum and clearly marked.			

<b>Drawings\Design</b>			
<b>Item</b>	<b>Verified by</b>	<b>Explanations</b>	<b>Action By</b>
<b>8 Quality Assurance</b>			
<b>8a</b> Coordination review of the design between various disciplines has been completed by the Consultant.			
<b>8b</b> Constructability review of design has been performed.			
<b>9 Signing and Sealing</b>			
<b>9a</b> Every final drawing bears the seal and signature of the responsible design professional in compliance with various provincial jurisdiction requirements.			

<b>Specifications</b>			
<b>Item</b>	<b>Verified by</b>	<b>Explanations</b>	<b>Action by</b>
<b>1 National Master Specification</b>			
<b>1a</b> The current edition of the National Master Specification (NMS) has been used.			
<b>1b</b> Sections have been included for all work identified on drawings and sections have been edited.			
<b>2 Index</b>			
<b>2a</b> The index shows a complete list of specifications sections with the correct number of pages.			
<b>3 Organization</b>			
<b>3a</b> Either the NMS 1/3- or 2/3-page format or the Construction Specifications Canada full-page format is used consistently for the entire specifications.			
<b>3b</b> Each section starts on a new page and the project number, section title, section number, page number and date is shown on each page.			
<b>3c</b> The Consultant's name is not indicated.			
<b>4 Terminology</b>			
<b>4a</b> The term "Departmental Representative" is used instead of "Engineer," "PWGSC," "Owner," "Consultant," or "Architect."			
<b>4b</b> Notations such as "verify on site," "as instructed," "to match existing," "example," "equal to," "equivalent to," and "to be determined on site by" are not used.			
<b>5 Dimensions</b>			
<b>5a</b> Dimensions are provided in metric only.			
<b>6 Standards</b>			
<b>6a</b> The current edition of all references quoted is used.			
<b>7 Specifications Materials</b>			
<b>7a</b> The method of specifying materials uses recognized standards. Actual brand names and model numbers are not specified.			
<b>7b</b> Materials are specified using standards and performance criteria.			

<b>Specifications</b>			
<b>Item</b>	<b>Verified by</b>	<b>Explanations</b>	<b>Action by</b>
<b>7c</b> Non-restrictive, non-trade name “prescription” or “performance” specifications are used throughout.			
<b>7d</b> The term “Acceptable Manufacturers” is not used.			
<b>7e</b> No sole sourcing has been used.			
<b>7f</b> If sole sourcing has been used, the correct wording has been used and a justification, estimate, and specification have been provided to the Departmental Representative for the sole-sourced products.			
<b>8 Measurement for Payment</b>			
<b>8a</b> Unit prices are used only for work that is difficult to estimate.			
<b>9 Cash Allowances</b>			
<b>9a</b> No cash allowances have been used or if they have, approval from the Departmental Representative has been received.			
<b>10 Miscellaneous Requirements</b>			
<b>10a</b> No paragraphs noted as “Scope of Work” are included.			
<b>10b</b> In Part 1 - General of any section, the paragraphs “Summary” and “Section Includes” are not used.			
<b>11 Specification Coordination</b>			
<b>11a</b> The list of related sections and appendices are coordinated.			
<b>12 Health and Safety</b>			
<b>12a</b> Section 01 35 29.06 – Health and Safety Requirements is included.			
<b>13 Subsurface Investigation Reports</b>			
<b>13a</b> Subsurface investigation reports are included after Section 31.			
<b>14 Prequalifications</b>			
<b>14a</b> There are no mandatory contractor and/or subcontractor prequalification requirements or references to certificates, transcripts, licence numbers of a trade or subcontractor, or other such documentation or item included in the bid.			

<b>Specifications</b>			
<b>Item</b>	<b>Verified by</b>	<b>Explanations</b>	<b>Action by</b>
<b>15 Contracting Issues</b>			
<b>15a</b> Contracting issues do not appear in the specifications.			
<b>15b</b> Division 00 of the NMS is not used except 00 01 07 (Seals Page) and 00 01 10 (Table of Contents).			
<b>16 Quality Assurance</b>			
<b>16a</b> There are no specification clauses with square brackets “[ ]” or lines “___” indicating that the document is incomplete or missing information.			
<b>17 Signing and Sealing</b>			
<b>17a</b> Every final specification bears the seal and signature of the responsible design professional as required. Seals and signatures shall be shown in NMS section 00 01 07.			

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

Consultant's Representative: \_\_\_\_\_

Firm name: \_\_\_\_\_

Signature: \_\_\_\_\_ Date: \_\_\_\_\_

# Appendix B Drawings and Specifications Table of Contents Template

## B.1 General

List all drawings by number and title.

For specifications, list all divisions, sections (by number and title), and the number of pages in each section.

## B.2 Sample Table of Contents

---

**Project No:** \_\_\_\_\_ **Table of Contents** **Index**  
**Page 1 of** \_\_\_\_

---

### DRAWINGS:

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

### SPECIFICATIONS:

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

---

## Appendix C Addenda Formatting Template

### C.1 Instructions

To re-issue a drawing with an addendum:

- indicate the drawing number and title; and
- list the changes or indicate the revision number and date.

To re-issue a specification with an addendum:

- indicate the section number and title; and
- list all changes (i.e. deletions, additions, and replacements) by article or paragraph.

The addendum, drawings and specifications should be sent as separate files.

### C.2 Sample Addendum

**Date:** \_\_\_\_\_

**Addendum Number:** \_\_\_\_\_

**Project Number:** \_\_\_\_\_

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

#### **DRAWINGS:**

- 1 A1 Architecture  
.1

#### **SPECIFICATIONS:**

- 1 Section 01 00 10 – General Instructions
  - .1 Delete article (xx) entirely.
  - .2 Refer to paragraph (xx.x),  
delete the following: ...  
and replace with the following: ...
- 2 Section 23 05 00 – Common Work Results - Mechanical
  - .1 Add new article (x) as follows:



# Appendix D Directory Structure and Naming Convention Standards for Construction Tender Documents

## D.1 Electronic Submissions

Electronic submittals of drawings, specification and models shall be in the following format unless otherwise specified in the Terms of Reference or instructed by the Departmental Representative:

- On media burned to read only memory (ROM) on either CD-ROM or DVD+R where:
  - CD-ROMs comply with ISO 9660:1988 standards;
  - DVD+Rs are 4.7 GB, single-sided, single-layer and comply with ISO/IEC 17344:2006 standards;
  - media is “closed” upon completion of burning; and
  - media is usable in such a way that files may be accessed and copied from it.

If BIM model size is greater than storage capacity of a DVD, refer to Terms of Reference or contact the Departmental Representative for transmission instructions.

Some projects may require the Consultant to upload files to an electronic system outlined in the Terms of Reference or as instructed by the Departmental Representative.

## D.2 Directory Structure

### D.2.1 1<sup>st</sup> Tier Subfolder

The 1st tier of the directory structure shall be “Project #####” where ##### represents each digit of the Project Number. The Project Number must always be used to name the 1st tier folder and it is always required. Free text can be added following the Project Number, to include such things as a brief description or the project title.

### D.2.2 2<sup>nd</sup> Tier Subfolder

The 2<sup>nd</sup> tier of the directory structure shall consist of: “Bilingual - Bilingue”, “English” and “Français” folders. The folders of the 2nd tier cannot be given any other names since the Government Electronic Tendering System (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 subfolders of the 3rd tier.

### D.2.3 3<sup>rd</sup> Tier Subfolder

The 3<sup>rd</sup> tier of the directory structure shall consist of: “Drawings - Dessins”, “Drawings”, “Models”, “Specifications”, “Reports”, “Dessins”, “Modèles”, “Devis” and “Rapports”. 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.

### D.2.4 4<sup>th</sup> Tier Subfolder - Drawings

The 4th-tier subfolders for Drawings should reflect the various disciplines of the set of drawings. Because the order of appearance of the subfolders on the screen will also determine the order of printing, it is necessary to start with a number the identification name of the subfolders in the “Drawings – Dessins”, “Drawings” and “Dessins” folders. The first subfolder 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.

The 4<sup>th</sup> tier “Drawings” and “Dessins” folder shall follow the naming convention:

## - Y

Where:

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

Y = the title of the folder Example: 03 – Mechanical

For the “Drawings - Dessins” folder:

## = Y - Z

Where:

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

Y = the English title of the folder

Z = the French title of the folder

Example:

04 - Electrical – Électrique

The numbering of the 4<sup>th</sup> tier subfolders is for sorting purposes only and is not tied to a specific discipline. For example, “Architecture” could be numbered 05 for a project where there is four other disciplines before “Architecture” in the set of drawings or 01 in another project where it’s the first discipline appearing in the set.

The order of the drawings shall be the same as in the hard copy set. GETS will sort each drawing for both screen display and printing as per the following rules:

- The alphanumerical sorting is done on an ascending order;
- The alphanumerical order of the subfolders 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-older will be printed in alphanumerical order before the drawings in the 02 sub- folder etc.);

Each drawing PDF file within each subfolder 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.).

#### **D.2.5 4<sup>th</sup>-Tier Subfolders for Specifications**

The “Specifications” and “Devis” folders must have 4<sup>th</sup> tier subfolders created to reflect the various elements of the specifications. Because the order of appearance of the subfolders on the screen will also determine the order of printing, it is necessary to start with a number the identification name of the subfolders in the “Specifications” and “Devis” folders.

The 4<sup>th</sup> tier subfolders for specifications must adhere to the following standard naming convention for the “Specifications” and “Devis” folders:

## - Y

Where:

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

Y = the title of the folder

Example:

## 02 – Divisions

Numbering of the 4th tier subfolders is for sorting purposes only and is not tied to an element of the specifications.

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

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

## D.2.6 Directory Structure Example

The following is an example of the directory structure for the tender document, refer to previous sections for requirements, and use only sections applicable to the given project:

```
Project #####
  Bilingual – Bilingue
    Drawings – Dessins
      01 - Drawing List – Liste des dessins
      02 – Demolition – Démolition
      03 – Architecture – Architectural
      04 – Civil – Civil
      05 – Landscaping - Aménagement paysager
      06 – Mechanical – Mécanique
      07 – Electrical – Électrique
      08 – Structural - Structurel
      09 – Interior Design – Aménagement intérieur
  English
    Drawings
      01 - Drawing List
      02 – Demolition
      03 – Architecture
      04 – Civil
      05 – Landscaping
      06 – Mechanical
      07 – Electrical
      08 – Structural
      09 – Interior Design
    ...
    Models
    Specifications
      01 – Index
      02 – Divisions
      03 – Appendices
    Reports
  Français
    Dessins
    Modèles
    Devis
    Rapports
```

## D.3 Naming Convention for PDF Files

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

### D.3.1 Drawing File Names

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

X### - Y

Where:

X = the letter or letters from the drawing title block (“A” for Architecture or “ID” for Interior Design for example) associated with the discipline

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

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

Example:

A001 - First Floor Details

Each drawing that will be located in the appropriate discipline 4th tier subfolders must be named with the same letter (“A” for Architecture Drawings for example) and be numbered. The drawing number used to name the PDF file must match as much as possible the drawing number of the actual drawing (the exception being when leading zeros are required).

The following important points about drawings are to be noted:

- The drawing PDF files within each subfolder are sorted alphanumerically for both displaying and printing. If there are more than 9 drawings in a particular discipline the numbering must use at least two numerical digits (i.e. A01 instead of A1) in order to avoid displaying drawing A10 between A1 and A2. The same rule applies when there are more than 99 drawings per discipline i.e. three digits instead of two must be used for the numbering (for example M003 instead of M03);
- If drawing PDF files are included in the “Bilingual - Bilingue” folder, these cannot be included as well in the “English” and/or “Français” folders;
- If drawings not associated with a particular discipline are not numbered (title page or list of drawings for example), these will be sorted alphabetically. While this does not represent a problem if there is only one drawing in the subfolder, 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.

### D.3.2 Specifications

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

### D.3.3 Documents Other Than Specifications Divisions

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

## - Y

Where:

## = Two digit number ranging from 01 to 99 with leading zeros required

Y = Name of the document

Example:

01 – Drawings and Specifications Index

### **D.3.4 Specifications Divisions**

The specifications divisions must be named as follows:

Division ## - Y

Where:

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

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

Example:

Division 05 – Metals

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

### **D.4 Media Label**

The CD-ROM or DVD+R shall be labeled with the following information:

Project Number / Numéro de projet

Project Title / Titre du projet

Documents for Tender / Documents pour appel d'offres

Disk X of/de X

Example:

Project 123456 / Projet 123456

Repair Alexandra Bridge / Réparation du pont Alexandra

Documents for Tender / Documents pour appel d'offres

Disk 1 of/de 1

**Solicitation No. - N° de Sollicitation**  
EJ078-200154/A

**Amd. No. - N° de la modif.**  
004

**Buyer ID - Id de l'acheteur**  
FE181

**Client Ref. No. - N° de réf. du client**  
20200154

**File No. - N° du dossier**  
fe181-EJ078-200154

**Title of Project – titre du projet**  
875 HERON ROAD REHABILITATION  
PROJECT – TECHNICAL ADVISOR

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**END OF AMENDMENT 004**