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RETOURNER LES SOUMISSIONS À:

**Bid Receiving Public Works & Government
Services Canada/Réception des soumissions Travaux
publics et Services gouvernementaux Canada
1713 Bedford Row
Halifax, N.S./Halifax, (N.E.)
Halifax
Nova Scotia
B3J 1T3
Bid Fax: (902) 496-5016**

Request For Supply Arrangement - Demande pour un arrangement en matière d'approvisionnement

Offer to: Department of Public Works and Government Services

We hereby offer to provide to Canada, as represented by the Minister of Public Works and Government Services, in accordance with the terms and conditions set out herein or attached hereto, the goods, services, and construction detailed herein and on any attached sheets.

Offre au: Ministère des Travaux publics et des Services
gouvernementaux

Nous offrons par la présente de fournir au Canada, représenté par le ministre des Travaux publics et des Services gouvernementaux, aux conditions énoncées ou incluses par référence dans la présente et aux annexes ci-jointes, les biens, services et construction énumérés ici et sur toute feuille ci-annexée.

Comments - Commentaires

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

Issuing Office - Bureau de distribution

Atlantic Region Acquisitions/Région de l'Atlantique
Acquisitions
1713 Bedford Row
Halifax, N.S./Halifax, (N.E.)
Halifax
Nova Scot
B3J 1T3

Title - Sujet Heavy Civil Engineering Services	
Solicitation No. - N° de l'invitation EB129-192368/A	Date 2019-08-22
Client Reference No. - N° de référence du client EB129-19-2368	GETS Ref. No. - N° de réf. de SEAG PW-\$PWA-104-5928
File No. - N° de dossier PWA-8-80115 (104)	CCC No./N° CCC - FMS No./N° VME
Solicitation Closes - L'invitation prend fin at - à 02:00 PM on - le 2019-10-02	Time Zone Fuseau horaire Atlantic Daylight Saving Time ADT
Delivery Required - Livraison exigée See Herein	
Address Enquiries to: - Adresser toutes questions à: Nowakowski, Leanne	Buyer Id - Id de l'acheteur pwa104
Telephone No. - N° de téléphone (902)403-7112 ()	FAX No. - N° de FAX (902)496-5016
Destination - of Goods, Services, and Construction: Destination - des biens, services et construction: DEPARTMENT OF PUBLIC WORKS AND GOVERNMENT SERVICES CANADA 3RD FL. HALIFAX NOVA SCOTIA B3J3C9 Canada	
Security - Sécurité This request for a Supply Arrangement does not include provisions for security. Cette Demande pour un arrangement ne comprend pas des dispositions en matière de sécurité.	

Instructions: See Herein

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

Request for Supply Arrangement

This is a request to solicit arrangements for Supply Arrangements (SAs) for the provision of Heavy Civil Engineering Services in the Atlantic Region.

Suppliers capable of meeting the requirement of this solicitation are invited to submit an arrangement.

Qualified suppliers that received a Supply Arrangement (SA) under **RFSA E0225-141687** and subsequent Refresh Solicitations are requested to respond to this RFSA.

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PART 1 – GENERAL INFORMATION

1.1 Introduction

Public Works and Government Services Canada requires the provision of Heavy Civil Engineering services for projects in the following locations in Atlantic Canada: Nova Scotia, New Brunswick, Prince Edward Island and Newfoundland and Labrador. Any locations subject to any of the Comprehensive Land Claim Agreements are excluded from the Supply Arrangement.

Suppliers must identify the geographic area(s) in which they propose to provide services. Suppliers are also requested to indicate at least one Specialty Service for which they wish to qualify. Suppliers are only required to submit one arrangement regardless of their number of proposed Specialty Services. Suppliers may choose one or more geographic regions.

There is no maximum to the number of Supply Arrangements that may be issued as result of this RFSA.

The Supply Arrangements will remain valid for a period of five years or until such time as Canada no longer considers it advantageous to use them. The period for awarding contracts under the Supply Arrangement begins on the start date of the Supply Arrangement.

The requirement is subject to the provisions of the Canadian Free Trade Agreement (CFTA), North American Free Trade Agreement (NAFTA), Comprehensive Economic and Trade Agreement (CETA), the World Trade Organization Agreement on Government Procurement (WTO-AGO), the Comprehensive and Progressive Agreement for Trans-Pacific Partnership (CPTPP) and Free Trade Agreements with Chile, Columbia, Honduras, Korea, Panama, Peru and Ukraine.

1.2 Specialty Services

This Heavy Civil Engineering Supply Arrangement solicitation includes nine (9) Specialty Services noted below. The descriptions provided are general and represent typical services which may be sought under each of the Specialty Services. The work in each Specialty may include but is not limited to:

1. **Municipal Engineering** - Earthwork, grading, paving and drainage design; Earth Dams – design, Inspection, safety reviews; Erosion and sedimentation control design; Water Supply Systems (piping, pumping, storage, fire protection); Sanitary Sewage Systems (piping, pumping); Storm water Management and design (piping, channels, culverts, fish passage, storage and discharge); Hydrological studies, hydraulic modeling; Site Development, including LEED assessment and design.
2. **Water and Wastewater Treatment** - Pollution control studies; receiving water studies; Water and wastewater characterization studies, Water and wastewater treatment process design including on-site and centralized systems.
3. **Structural Engineering** - Building design (Structural Steel, Concrete, Masonry, Engineered Wood); Miscellaneous Structures (Retaining Walls, Concrete pavement)
4. **Bridge Engineering** - Bridge Design (Precast Concrete Girder, Steel Plate Girder, Steel Trapezoidal Girder, Single and Multiple Span Structures); Bridge Inspection
5. **Marine Engineering** - Marine Structures; Piled Structures (timber, steel pipe, steel H-); Timber Crib Structures; Concrete Caisson Structures; Steel Sheet Pile Structures; Floating Wharves

6. **Coastal Engineering** - Coastal studies including extreme water level, storm surge, wave climate, nearshore waves, in-harbour wave agitation, hydrodynamics, wave forces on marine structures, sediment transport, dredging and shore process; design of rubble mound breakwater, floating breakwater, revetment and shore protection structures; and consideration of climate change and sea-level rise effects on coastal infrastructures design.
7. **Transportation Engineering** - Planning and design of transportation facilities. Highways, roadways, interchanges, intersections, signalization, access, parking lots, site circulation, pedestrian and active transportation facilities. Grading, paving and drainage design; Pavement Management Systems; Access management, Safety analysis.
8. **Traffic Engineering** - Traffic Studies; Transportation planning; traffic impact analysis, traffic modelling.
9. **Geotechnical Engineering** - Geotechnical investigations and recommendations; foundation design (shallow and deep foundations), flexible and rigid pavement design. Earth Dams – design, Inspection, safety reviews

1.3 Security Requirements

Suppliers are informed that there is a possibility that some solicitations against the Supply Arrangement might require that the supplier hold a valid Designated Organization Screening (DOS) issued by the Canadian Industrial Security Directorate (CISD) of Public Works and Government Services Canada (PWGSC) and that their personnel requiring access to sensitive work site(s) must hold a valid Reliability Status, granted or approved by CISD/PWGSC.

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

Suppliers desiring such sponsorship should so indicate in their covering letter with their arrangement.

Successful supplier(s) issued a Supply Arrangement as a result of this RFSA, not possessing the required security clearance at time of a solicitation, will be bypassed in the selection process as detailed in Part 6B. For all bid solicitations against this supply arrangement (Part 6C) it will be mandatory to meet the security requirements at the time of bid closing.

1.4 Debriefings

Suppliers may request a debriefing on the results of the Request for Supply Arrangements process. Suppliers should make the request to the Supply Arrangement Authority within 15 working days of receipt of the results of the Request for Supply Arrangements process. The debriefing may be in writing, by telephone or in person.

1.5 Use of an e-Procurement Solution (EPS)

Canada is currently developing an online EPS for faster and more convenient ordering of goods and services. In support of the anticipated transition to this system and how it may impact any resulting Supply Arrangement that is issued under this solicitation, refer to 6.12 Transition to an e-Procurement Solution (EPS).

The Government of Canada's [press release](#) provides additional information.

1.6 Key Terms

"Supplier" (RFSA stage)

the person or entity (or, in the case of a joint venture, the persons or entities) submitting an arrangement. It does not include the parent, subsidiaries or other affiliates of the Supplier, or its subcontractors.

"Supplier"(SA stage)

means the person or entity whose name appears on the Supply Arrangement and who has become a pre-qualified supplier and been issued a Supply Arrangement;

"Supply Arrangement"

a written arrangement between Canada and the Supplier, the general conditions, any referenced clauses and conditions, and any other document specified or referred to as forming part of the Supply Arrangement;

The Supply Arrangement is a procurement tool established by PWGSC for use by clients that allows buyers to solicit bids from a pool of pre-qualified suppliers for specific requirements. The intent is to establish a framework to permit expeditious processing of individual bid solicitations which result in legally binding contracts for the goods and services described in those bid solicitations

"Supply Arrangement Authority"

means the person designated as such in the Supply Arrangement, or by notice to the Supplier, to act as the representative of Canada in the management of the Supply Arrangement.

"Request for Supply Arrangement"

A request for an arrangement from a Supplier

"Bid Solicitation"

An invitation, verbal or written, to suppliers to submit a bid, quotation or offer.

"Responsive bid"

A bid, tender, proposal or quotation that meets all the mandatory requirements stipulated in the solicitation document.

"Refresh Solicitation"

A solicitation that allows existing and new suppliers to apply to qualify and existing suppliers to apply to qualify for more services throughout the entire period of the Supply Arrangement. Existing suppliers are not required to provide an arrangement in order to continue to provide the services in their qualified specialty services.

PART 2 – SUPPLIER INSTRUCTIONS

2.1 Standard Instructions, Clauses and Conditions

The 2008 standard instructions is amended as follows:

- Section 08, entitled Submission of arrangements, is amended as follows:
 - subsection 2. is deleted entirely and replaced with the following:
 2. epost Connect
 - a. Unless specified otherwise in the RFSA, arrangements may be submitted by using the [epost Connect service](#) provided by Canada Post Corporation.
 - i. PWGSC, National Capital Region: The only acceptable email address to use with epost Connect for responses to RFSA's issued by PWGSC headquarters is:

tpsgc.dgareceptiondessoumissions-abbidreceiving.pwgsc@tpsgc-pwgsc.gc.ca

or if applicable, the email address identified in the RFSA.
 - ii. PWGSC regional offices: The only acceptable email address to use with epost Connect for responses to RFSA's issued by PWGSC regional offices is identified in the RFSA.
 - b. To submit an arrangement using epost Connect service, the Supplier must either:
 - i. send directly its arrangement only to specified PWGSC Bid Receiving Unit using its own licensing agreement for epost Connect provided by Canada Post Corporation; or
 - ii. send as early as possible, and in any case, at least six business days prior to the RFSA closing date and time, (in order to ensure a response), an email that includes the RFSA number to the specified PWGSC Bid Receiving Unit requesting to open an epost Connect conversation. Requests to open an epost Connect conversation received after that time may not be answered.
 - c. If the Supplier sends an email requesting epost Connect service to the specified Bid Receiving Unit in the RFSA, an officer of the Bid Receiving Unit will then initiate an epost Connect conversation. The epost Connect conversation will create an email notification from Canada Post Corporation prompting the Supplier to access and action the message within the conversation. The Supplier will then be able to transmit its arrangement afterward at any time prior to the RFSA closing date and time.
 - d. If the Supplier is using its own licensing agreement to send its arrangement, the Supplier must keep the epost Connect conversation open until at least 30 business days after the RFSA closing date and time
 - e. The RFSA number should be identified in the epost Connect message field of all electronic transfers.
 - f. It should be noted that the use of epost Connect service requires a Canadian mailing address. Should a supplier not have a Canadian mailing address, they may use the Bid Receiving Unit address specified in the RFSA in order to register for the epost Connect

service.

- g. For arrangements transmitted by epost Connect service, Canada will not be responsible for any failure attributable to the transmission or receipt of the arrangement including, but not limited to, the following:
 - i. receipt of garbled, corrupted or incomplete arrangement;
 - ii. availability or condition of the epost Connect service;
 - iii. incompatibility between the sending and receiving equipment;
 - iv. delay in transmission or receipt of the arrangement;
 - v. failure of the Supplier to properly identify the arrangement;
 - vi. illegibility of the arrangement;
 - vii. security of arrangement data; or
 - viii. inability to create an electronic conversation through the epost Connect service.
- h. The Bid Receiving Unit will send an acknowledgement of the receipt of arrangement document(s) via the epost Connect conversation, regardless of whether the conversation was initiated by the supplier using its own license or the Bid Receiving Unit. This acknowledgement will confirm only the receipt of arrangement document(s) and will not confirm if the attachments may be opened nor if the content is readable.
- i. Suppliers must ensure that they are using the correct email address for the Bid Receiving Unit when initiating a conversation in epost Connect or communicating with the Bid Receiving Unit and should not rely on the accuracy of copying and pasting the email address into the epost Connect system.
- j. An arrangement transmitted by epost Connect service constitutes the formal arrangement of the Supplier and must be submitted in accordance with section 05.

All instructions, clauses and conditions identified in the Request for Supply Arrangements (RFSA) by number, date and title are set out in the [Standard Acquisition Clauses and Conditions Manual](https://buyandsell.gc.ca/policy-and-guidelines/standard-acquisition-clauses-and-conditions-manual) (<https://buyandsell.gc.ca/policy-and-guidelines/standard-acquisition-clauses-and-conditions-manual>) issued by Public Works and Government Services Canada.

Suppliers who submit an arrangement agree to be bound by the instructions, clauses and conditions of the RFSA and accept the clauses and conditions of the Supply Arrangement and resulting contract(s).

The 2008 (2018-05-22) Standard Instructions - Request for Supply Arrangements - Goods or Services, are incorporated by reference into and form part of the RFSA.

Subsection 5.4 of 2008, Standard Instructions - Request for Supply Arrangements - Goods or Services, is amended as follows:

Delete: 60 days
Insert: 120 days.

2.2 Submission of Arrangements

Arrangements must be submitted only to Public Works and Government Services Canada (PWGSC) Bid Receiving Unit by the date, time and place indicated in the RFSA.

Bid Receiving Public Works and Government Services Canada / Réception des soumissions Travaux publics et Services gouvernementaux Canada

1713 Bedford Row
Halifax, N.S. / Halifax, (N.É.)
B3J 1T3

Bid Fax: (902) 496-5016

Bid Email: TSPGC.RAReceptionSoumissionsNE-ARBidReceivingNS.PWGSC@tpsgc-pwgsc.gc.ca

Note: Arrangements will not be accepted if emailed directly to this email address. This email address is to be used to open an epost Connect conversation, as detailed in Standard Instructions [2008](#), or to send arrangements through an epost Connect message if the bidder is using its own licensing agreement for epost Connect.

Due to the nature of the Request for Supply Arrangements, transmission of arrangements by facsimile to PWGSC will not be accepted.

2.3 Former Public Servant - Notification

Service contracts awarded to former public servants in receipt of a pension or a lump sum payment must bear the closest public scrutiny and reflect fairness in the spending of public funds. Therefore, the bid solicitation will require that you provide information that, were you to be the successful bidder, your status with respect to being a former public servant in receipt of a pension or a lump sum payment, will be required to report this information on the departmental websites as part of the published proactive disclosure reports generated in accordance with Treasury Board policies and directives on contracts with former public servants, [Contracting Policy Notice 2012-2](#) and the [Guidelines on the Proactive Disclosure of Contracts](#).

2.4 Federal Contractors Program for Employment Equity - Notification

The Federal Contractors Program (FCP) for employment equity requires that some contractors make a formal commitment to Employment and Social Development Canada (ESDC) - Labour to implement employment equity. In the event that this Supply Arrangement would lead to a contract subject to the Federal Contractors Program (FCP) for employment equity, the bid solicitation and resulting contract templates would include such specific requirements. Further information on the Federal Contractors Program (FCP) for employment equity can be found on [Employment and Social Development Canada \(ESDC\) - Labour's](#) website.

2.5 Enquiries - Request for Supply Arrangements

All enquiries must be submitted in writing to the Supply Arrangement Authority no later than seven (7) calendar days before the Request for Supply Arrangements (RFSA) closing date. Enquiries received after that time may not be answered.

Suppliers should reference as accurately as possible the numbered item of the RFSA to which the enquiry relates. Care should be taken by suppliers to explain each question in sufficient detail in order to

enable Canada to provide an accurate answer. Technical enquiries that are of a proprietary nature must be clearly marked "proprietary" at each relevant item. Items identified as "proprietary" will be treated as such except where Canada determines that the enquiry is not of a proprietary nature. Canada may edit the question(s) or may request that suppliers do so, so that the proprietary nature of the question(s) is eliminated, and the enquiry can be answered to all suppliers. Enquiries not submitted in a form that can be distributed to all suppliers may not be answered by Canada.

2.6 Applicable Laws

The Supply Arrangement (SA) and any contract awarded under the SA must be interpreted and governed, and the relations between the parties determined, by the laws in force in Nova Scotia.

Suppliers may, at their discretion, substitute the applicable laws of a Canadian province or territory of their choice without affecting the validity of the arrangement, by deleting the name of the Canadian province or territory specified and inserting the name of the Canadian province or territory of their choice. If no change is made, it acknowledges that the applicable laws specified are acceptable to the suppliers.

PART 3 – ARRANGEMENT PREPARATION INSTRUCTIONS

3.1 Arrangement Preparation General Instructions

- If the Supplier chooses to submit its arrangement electronically, Canada requests that the Supplier submits its arrangement in accordance with section 08 of the 2008 standard instructions. The epost Connect system has a limit of 1GB per single message posted and a limit of 20GB per conversation. The arrangement must be gathered per section and separated as follows:

Section I: Technical Arrangement

Section II: Certifications

- If the Supplier chooses to submit its arrangement in hard copies, Canada requests that the Supplier submits its arrangement in separately bound sections as follows:

Section I: Technical Arrangement (two hard copies)

Section II: Certifications (one hard copy)

- If the Supplier is simultaneously providing copies of its arrangement using multiple acceptable delivery methods, and if there is a discrepancy between the wording of any of these copies and the electronic copy provided through epost Connect service, the wording of the electronic copy provided through epost Connect service will have priority over the wording of the other copies.

Due to the nature of the RFSA, arrangements transmitted by facsimile will not be accepted

3.2 Green Procurement

In April 2006, Canada issued a policy directing federal departments and agencies to take the necessary steps to incorporate environmental considerations into the procurement process [Policy on Green Procurement](http://www.tpsgc-pwgsc.gc.ca/ecologisation-greening/achats-procurement/politique-policy-eng.html) (<http://www.tpsgc-pwgsc.gc.ca/ecologisation-greening/achats-procurement/politique-policy-eng.html>). To assist Canada in reaching its objectives, suppliers should:

- 1) use 8.5 x 11 inch (216 mm x 279 mm) paper containing fibre certified as originating from a sustainably-managed forest and containing minimum 30% recycled content; and
- 2) use an environmentally-preferable format including black and white printing instead of colour printing, printing double sided/duplex, using staples or clips instead of cerlox, duotangs or binders.

3.3 Arrangement Format, Page Limitations and Copies

The following is provided to assist the supplier with their arrangement preparation and submission. As the status and circumstances of each supplier is unique, it is the responsibility of each supplier to read all documents related to this solicitation, and to ensure that all mandatory requirements (M), rated requirements (R), certification and elements required for arrangement validity are met in their submission.

Canada requests that suppliers follow the following format when preparing arrangements:

- Use 8.5 x 11 inch (216 mm x 279 mm) paper;
- Use a numbering system that corresponds to that of the Request for Supply Arrangements.
- Minimum font size – 11 point Times or equal
- Minimum margins -12 mm left, right, top and bottom

- Double-side submissions are preferred.
- There is a page limitation for part of the arrangement. The following applies:
 - The definition of a page is **one side** of a 216mm x 279mm (8.5" x 11") sheet of paper.
 - 279mm x 432 mm (11" x 17") fold-out sheets for spreadsheets, organization charts, etc. will be counted as **two** pages.

Canada requests that suppliers provide the arrangement in two separately bound sections as follows:

Section I - Technical Arrangement: In the Technical arrangement, suppliers explain and demonstrate how they propose to meet the requirements. The Section I - Technical Arrangement should follow this general format and include:

1. Front Page of the RFSA and Amendment(s)
2. Cover Letter
3. Table of Contents
4. Table 1 – M1 Supplier Information
5. Table 2 – M2 and M3– Specialties and Geographic Areas
6. Table 3 – M4 – Licensing information
7. R1 – Team Approach / Management of Services
8. R2 – Past Experience of the Firm
9. R3 – Key Personnel Expertise and Experience

Items 7 to 9 (R1, R2, R3) are subject to page limitations provided in the table below. **Items 1 to 6 are not part of the page limitation.**

Section II - Certifications: Suppliers must submit the certifications required under Part 5. For the Certifications provide one hard copy. This section is not subject to a page limitation. The Section II - Certifications should follow this general format and include:

1. Certifications Required with the Arrangement
 - a. Integrity Provisions - Declaration of Convicted Offences (**IF** applicable)
2. Certifications Precedent to the Issuance of a Supply Arrangement
 - a. Integrity Provisions – Required Documentation
 - b. Status and Availability of Resources
 - c. Education and Experience

As noted above, the Rated Requirements (R1, R2, and R3) have page limitations. The maximum number of pages (including text and graphics) to be submitted are as follows:

RFSA Section	Maximum Pages and Range (Range is dependent on number of specialty services identified)
R1 - Team Approach / Management of Services	
<ul style="list-style-type: none"> • There is only one R1 section per arrangement • R1 is a maximum of 4 pages regardless of the number of proposed specialty services. • The limit includes the one page curriculum vitae of the identified key contact 	4
R2 - Past Experience of the Firm	
<ul style="list-style-type: none"> • 3 projects per specialty are requested. • Each project is limited to one page per specialty service. • It is acceptable to use the same project in multiple specialty services. The page limit remains at one page per project per specialty service. Please provide the one page project description per stream, even if it is a duplicate. 	3 pages per Specialty Service Range: 3 to 27
R3 – Key Personnel and Past Experience	
<ul style="list-style-type: none"> • 3 personnel per specialty are requested • Each individual is limited to one page per specialty service. • It is acceptable to use the same individual in multiple specialty services. The page limit remains at one page per individual per specialty service. Please provide one CV per stream even if it is a duplicate. 	3 pages per Specialty Service Range: 3 to 27
Rated Requirements (R): Maximum number of pages	
<ul style="list-style-type: none"> • The maximum number of pages is dependent on the number of specialty services identified. • Pages that extend beyond the page limitations and any other attachments will be extracted from the arrangement and they will not be evaluated. 	Total 10 to 58 pages (for R1, R2 and R3)

3.3 Mandatory Requirement M1 - Supplier Information

The Supplier is requested to complete the following table and include with their arrangement.

Table 1 – Supplier Information

Name of Supplier:			
Street Address:		Mailing Address:	
Telephone Number:		Fax Number:	
Procurement Business Number:			
Type of Organization:			
<input type="checkbox"/>	Corporation	<input type="checkbox"/>	Joint Venture
<input type="checkbox"/>	Sole Proprietorship	<input type="checkbox"/>	Partnership
During the proposal evaluation period, PWGSC contact will be with the following person:			
Name:			
Telephone Number:			
E-mail:			
In any resultant SA, PWGSC should send solicitations to the following e-mail:			
E-mail:			

3.4 Mandatory Requirements M2 and M3 - Specialties and Geographic Areas

The Supplier is requested to complete the following table and include with their arrangement.

Table 2 – Mandatory Requirements M2 and M3 – Specialties and Geographic Areas

Name of Supplier:				
M2	Identify Geographic Region(s) Minimum 1 Failure to identify a region will deem your arrangement non-responsive		M3	Identify Specialty Service(s) Minimum 1 Failure to identify a specialty service will deem your arrangement non-responsive.
	Nova Scotia	New Brunswick	Prince Edward Island	Newfoundland & Labrador
1 Municipal Engineering	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
2 Water and Wastewater Treatment	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
3 Structural Engineering	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
4 Bridge Engineering	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
5 Marine Engineering	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
6 Coastal Engineering	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
7 Transportation Engineering	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
8 Traffic Engineering	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
9 Geotechnical Engineering	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

3.5 Mandatory Requirements M4 - Licensing

The Supplier is requested to complete the following form and include with their arrangement.

Table 3 – Mandatory Requirements M4 – Licensing

Name of Supplier:	
M4	Licensing Requirements for specialty services 1 through 9
<p>The supplier must be an engineer, licensed in the province of Nova Scotia and/or New Brunswick and/or Prince Edward Island and/or Newfoundland and Labrador, able to provide the necessary professional services to the full extent that may be required by provincial law.</p> <p>If the supplier is licensed to practice in only one of the four provinces and indicates they can provide services in more than one province, then that supplier must be eligible and willing to become licensed in the province in which they are not licensed.</p> <p>Suppliers are requested to indicate their current license(s) held and how they intend to meet the pertinent provincial licensing requirements in their proposed geographical areas. In the space below, either provide this information or indicate where this information is located within their proposal.</p>	

3.6 Rated Requirement R1 – Team Approach / Management of Services

Arrangements meeting the mandatory requirements (M1 to M4) will be evaluated in accordance with the following R1 criteria. The clarity of the writing will form part of the evaluation (use of language, document structure, conciseness and completeness of the response). See Annex A, for an example of the types of Required Services that may be requested on a project.

R1	Team Approach / Management of Services		
Maximum	100 points	Minimum	60 points
Failure to meet the minimum score will deem the supplier non-responsive.			
<p>The supplier must demonstrate how the team will be organized and managed in its approach and methodology in the delivery of the Required Services on a typical project (demonstrating, for example, means of ensuring continuous and consistent control, effective communication, and production efficiency). The supplier may provide background on their firm, its stability and longevity in order to substantiate the below criteria. Higher consideration will be given to the appropriate significant involvement of senior personnel in key positions.</p> <p>The supplier should ensure that the narrative provided to address R1 covers the above-noted areas with respect to their internal team and structure, but also with respect to their management of potential sub-consultant teams during multi-disciplinary projects, to the extent that this is pertinent, given the Specialty services for which they are applying.</p>			
a.	Identify a Supply Arrangement Primary Contact; and define the roles and responsibilities of Primary Contact; and provide a one page curriculum vitae (cv) for Primary Contact	20 points	
b.	Assignment of the resources and availability of back-up personnel	20 points	
c.	Management and organization (reporting structure) proposed for typical projects	20 points	
d.	Quality control techniques to be utilized by the supplier on each project	20 points	
e.	Demonstration of how the team intends to meet the 'Project Response Time Requirements' with consideration of the geographic areas identified.	20 points	

3.7 Rated Requirement R2 – Past Experience of the Firm

Arrangements meeting the R1 requirements will be evaluated in accordance with the following R2 criteria. The clarity of the writing will form part of the evaluation (use of language, document structure, conciseness and completeness of the response).

R2	Past Experience of the Firm			
	Maximum	100 pts	Minimum	40 pts
<p>The supplier should demonstrate that over at least the past ten (10) years it has completed a range of projects. The supplier must demonstrate that their role on the projects submitted was the role with the technical and professional responsibility for the Specialty Service on the specific project; e.g., in order to qualify for the Coastal Engineering Specialty, the supplier must have been technically and professionally responsible for the design of the Coastal Engineering on the submitted projects. Simply having served in the role of Prime Consultant on a Coastal Engineering project will NOT qualify the supplier for the Coastal Engineering Specialty. Repair or rehabilitation projects may be submitted but will be limited to one (1) of the (3) submitted projects per Specialty Service.</p> <p>The supplier should demonstrate participation at all project stages (planning, preliminary, concept, detailed design, tendering and construction) to the extent that could be required by the specialty service. An example of the Required Services that may be required on a specific project is provided in Annex A.</p> <p>Project descriptions are limited to one page per project; pages exceeding this limitation will not be reviewed. If more than three projects are submitted, only the first three projects, in the order of appearance /received /presented, will be reviewed.</p> <p>For projects which were carried in joint venture, indicate the responsibilities of each of the involved firms, being specific regarding the roles and experience of the Supplier.</p>				
a. Provide a description of three (3) relevant projects per specialty area. For each project indicate: <ul style="list-style-type: none">• Project title, objectives and brief description• Client name, address, phone and email of client contact at the working level (references may be contacted)• Consultant roles and responsibilities, names of key personnel responsible for project delivery.• Dates the services were provided and how this project is comparable/relevant to the requested specialty service.				60 points
b. Describe the Scope of services rendered, constraints and deliverables; budget and schedule control and management, design philosophy and challenges overcome. Describe the project outcomes in terms of accomplishments, achievements and experience.				40 points

3.8 Rated Requirement R3 – Key Personnel Expertise and Experience

Arrangements meeting the R1 requirements will be evaluated in accordance with the following R3 criteria. The clarity of the writing will form part of the evaluation (use of language, document structure, conciseness and completeness of the response). Higher consideration will be given to the appropriate significant involvement of senior personnel in key positions.

R3 Key Personnel Expertise and Experience			
<i>Maximum</i>	100 points	<i>Minimum</i>	40 points
<p>The supplier should demonstrate that they have key personnel with the capability, capacity and expertise in the identified Specialty Service. Proposed key personnel must have been technically and professionally responsible for the design of the Specialty Services on the projects in their curriculum vitae. Please demonstrate expertise/experience in accordance with the following:</p> <p>A maximum of three key personnel may be proposed per identified Specialty Service. The curriculum vitae (cv) are limited to one page per person per Specialty Service. Suppliers may propose the same individual on multiple Specialty Services; however, they are still limited to one per page per Specialty Service. Pages that exceed this one page per person per specialty service limitation will not be reviewed.</p>			
a. Each CV should provide career summary information including: <ul style="list-style-type: none">• Total years of experience and years with the firm.• Number of years of experience in the specialty service identified.• Professional accreditation and membership in provincial professional associations.• Accomplishments/achievements/awards			40 points
b. Each CV should provide project experience (relevant to the specialty) of the personnel, identifying: <ul style="list-style-type: none">• Title and brief description of each relevant project• Their role on the project(s)			60 points

3.9 Summary - Arrangement Submission List

The following list is provided to assist the supplier with their arrangement preparation and submission. As the status and circumstances of each supplier is unique, it is the responsibility of each supplier to read all documents related to this solicitation, and to ensure that all mandatory criteria, certification and elements required for bid validity are met in their submission.

Section I - Technical Arrangement:

1. Front Page of the RFSA and Amendment(s)
2. Cover Letter
3. Table of Contents
4. Table 1 – M1 Supplier Information
5. Table 2 – M2 and M3– Specialties and Geographic Areas
6. Table 3 – M4 – Licensing information
7. R1 – Team Approach / Management of Services
8. R2 – Past Experience of the Firm
9. R3 – Key Personnel Expertise and Experience

Section II - Certifications:

1. Certifications Required with the Arrangement
 - a. Integrity Provisions - Declaration of Convicted Offences (**IF** applicable)
2. Certifications Precedent to the Issuance of a Supply Arrangement
 - a. Integrity Provisions – Required Documentation
 - b. Status and Availability of Resources
 - c. Education and Experience

PART 4 – EVALUATION PROCEDURES AND BASIS OF SELECTION

4.1 Evaluation Procedures

Arrangements will be assessed in accordance with the entire requirement of the Request for Supply Arrangements. An evaluation team composed of representatives of Canada will evaluate the arrangements. Evaluation of the submissions include Mandatory (M) and Rated (R) Requirements as summarized below. In the evaluation of Rated Requirements by PSPC Evaluation Board members, scores will be based on the table provided in section 4.5. The ratings are at the sole discretion of the board members based on their interpretation of the supplier's ability to meet PSPC requirements.

4.2 Mandatory Requirements (M) Evaluation

Each arrangement will be examined to determine that it meets all mandatory criteria. Arrangements which fail to meet the mandatory criteria will be given no further consideration and will be deemed non-responsive.

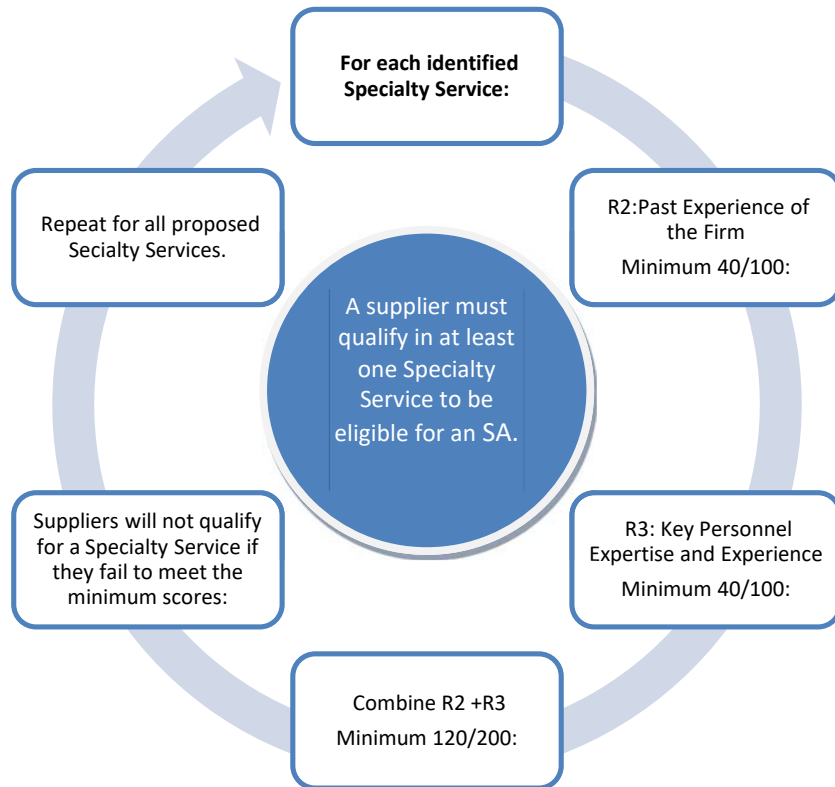
4.3 Rated Requirement (R) Evaluation – Point Score Summary

The table below illustrates the weighting, rating and scoring of the Rated Requirements (R)

Criterion	Sub-criterion	Weight Factor	Rating 0,2,4,6,8 or 10	Weighted Score
R1: Team Approach / Management of Services	a	2	0-10	0-20
	b	2	0-10	0-20
	c	2	0-10	0-20
	d	2	0-10	0-20
	e	2	0-10	0-20
To be considered further, suppliers must achieve a minimum R1 Rating of 60 points out of the 100 points available.				
R2 Past Experience of the Firm	a	6	0-10	0-60
	b	4	0-10	0-40
R3 Key Personnel Expertise and Experience	a	4	0-10	0-40
	b	6	0-10	0-60
To qualify for a Specialty service the supplier must achieve a minimum rating on each R2 and R3 of 40 points out of the 100 points available and a minimum of 120 out of the 200 points available on the combined Rating (R2+R3).				

4.4 Specialty Service Qualification

Suppliers that meet the minimum score in R1 will proceed to the qualification process of their identified Specialty Service(s). Suppliers must demonstrate an acceptable level of expertise and experience in the Specialty service for which they wish to qualify. The diagram below further illustrates the process for evaluating each specialty service.



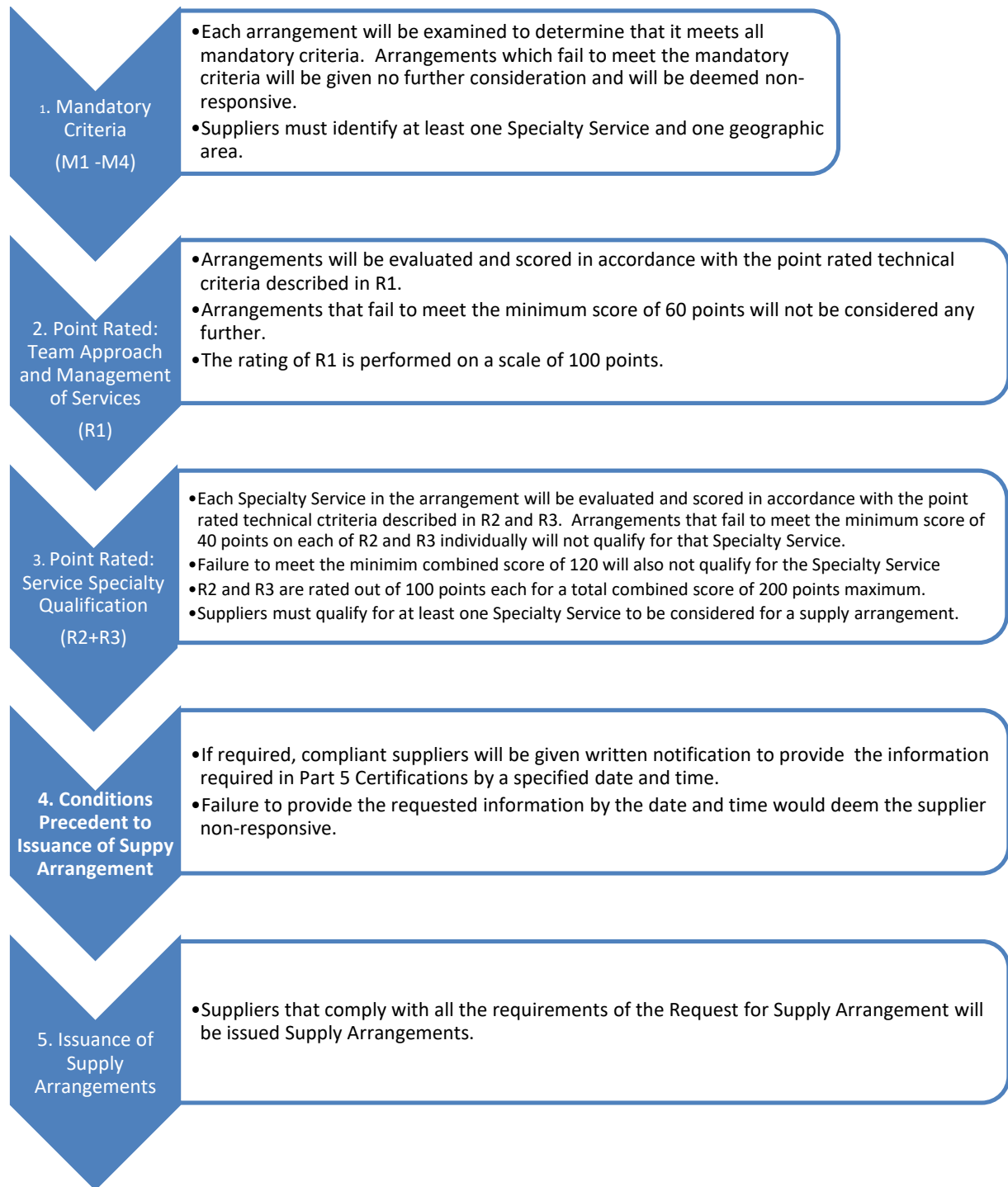
4.5 Generic Evaluation Table for Rating of Criteria

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

	INADEQUATE	WEAK	ADEQUATE	FULLY SATISFACTORY	STRONG
0 points	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
	Supplier does not possess the qualifications and experience	Supplier lacks qualifications and experience	Supplier has an acceptable level of qualifications and experience	Supplier is qualified and experienced	Supplier 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 the 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 capacity to meet performance requirements	Acceptable capability, should ensure adequate results	Satisfactory capability, should ensure effective results	Superior capability, should ensure very effective results

4.6 Basis of Selection Summary

The following is a summary of the full evaluation process for the issuance of Supply Arrangements.



PART 5 – CERTIFICATIONS AND ADDITIONAL INFORMATION

Suppliers must provide the required certifications and additional information to be issued a supply arrangement (SA).

The certifications provided by Suppliers to Canada are subject to verification by Canada at all times. Unless specified otherwise, Canada will declare an arrangement non-responsive, or will declare a contractor in default, if any certification made by the Supplier is found to be untrue whether made knowingly or unknowingly during the arrangement evaluation period, or during the period of any supply arrangement arising from this RFSA and any resulting contracts.

The Supply Arrangement Authority will have the right to ask for additional information to verify the Supplier's certifications. Failure to comply and to cooperate with any request or requirement imposed by the Supply Arrangement Authority will render the arrangement non-responsive, or constitute a default under the Contract.

5.1 Certifications Required with the Arrangement

Suppliers must submit the following duly completed certifications as part of their arrangement.

5.1.1 Integrity Provisions - Declaration of Convicted Offences

In accordance with the Integrity Provisions of the Standard Instructions, all suppliers must provide with their arrangement, **if applicable**, the declaration form available on the [Forms for the Integrity Regime](http://www.tpsgc-pwgsc.gc.ca/ci-if/declaration-eng.html) website (<http://www.tpsgc-pwgsc.gc.ca/ci-if/declaration-eng.html>), to be given further consideration in the procurement process.

5.2 Certifications Precedent to the Issuance of a Supply Arrangement

The certifications and additional information listed below should be submitted with the arrangement, but may be submitted afterwards. If any of these required certifications or additional information is not completed and submitted as requested, the Supply Arrangement Authority will inform the Supplier of a time frame within which to provide the information. Failure to provide the certifications or the additional information listed below within the time frame provided will render the arrangement non-responsive.

5.2.1 Integrity Provisions – Required Documentation

In accordance with the section titled Information to be provided when bidding, contracting or entering into a real procurement agreement of the [Ineligibility and Suspension Policy](http://www.tpsgc-pwgsc.gc.ca/ci-if/politique-policy-eng.html) (<http://www.tpsgc-pwgsc.gc.ca/ci-if/politique-policy-eng.html>), the Supplier must provide the required documentation, as applicable, to be given further consideration in the procurement process.

5.2.2 Additional Certifications Precedent to Issuance of a Supply Arrangement

5.2.2.1 Status and Availability of Resources

SACC Manual clause [S3005T](#) (2008-12-12) Status and Availability of Resources.

5.2.2.2 Education and Experience

SACC Manual clause [S1010T](#) (2008-12-12) Education and Experience

PART 6 – SUPPLY ARRANGEMENT AND RESULTING CONTRACT CLAUSES

A. SUPPLY ARRANGEMENT

A6.1 Arrangement

The Supply Arrangement covers the Work described in the Example Requirement at Annex A.

A6.2 Security Requirements

There is no security requirement applicable to this Supply Arrangement. The security requirement will be determined at time a bid solicitation is issued under the Supply Arrangement

A6.3 Standard Clauses and Conditions

All clauses and conditions identified in the Supply Arrangement and resulting contract(s) by number, date and title are set out in the [Standard Acquisition Clauses and Conditions Manual](https://buyandsell.gc.ca/policy-and-guidelines/standard-acquisition-clauses-and-conditions-manual) (<https://buyandsell.gc.ca/policy-and-guidelines/standard-acquisition-clauses-and-conditions-manual>) issued by Public Works and Government Services Canada.

A6.3.1 General Conditions

2020 (2017-09-21) General Conditions - Supply Arrangement - Goods or Services, apply to and form part of the Supply Arrangement.

A6.3.2 Bidders as Subcontractors

In accordance with ***R1410T GI9 (2013-04-25) Limitation of Submissions***, Bidders cannot propose or otherwise include subcontractors in their bid that will be also participating in the solicitation as a Bidder. Any bid that lists another Bidder as subcontractor will be deemed non-compliant. In addition, if it is demonstrated that the subcontractor/Bidder was aware of and had indicated its approval of being listed as subcontractor, the subcontractor/Bidder's bid may be deemed non-compliant.

A6.3.3 Supply Arrangement Reporting

The Supplier must compile and maintain records on its provision of goods, services or both to the federal government under contracts resulting from the Supply Arrangement. This data must include all purchases, including those paid for by a Government of Canada Acquisition Card.

If some data is not available, the reason must be indicated. If no goods or services are provided during a given period, the Supplier must still provide a "NIL" report.

The data must be submitted on a quarterly basis to the Supply Arrangement Authority.

The quarterly reporting periods are defined as follows:

- 1st quarter: April 1 to June 30;
- 2nd quarter: July 1 to September 30;
- 3rd quarter: October 1 to December 31;
- 4th quarter: January 1 to March 31.

The data must be submitted to the Supply Arrangement Authority no later than 30 calendar days after the end of the reporting period.

A6.4 Term of Supply Arrangement

6.4.1 Period of the Supply Arrangement

The period for awarding contracts under the Supply Arrangement is five years from the date of supply arrangement.

6.4.2 Comprehensive Land Claims Agreements (CLCAs)

The Supply Arrangement (SA) is for the delivery of the requirement detailed in the SA to the Identified Users across Canada, **excluding** locations within Yukon, Northwest Territories, Nunavut, Quebec, and Labrador that are subject to Comprehensive Land Claims Agreements (CLCAs). Any requirement for deliveries to locations within CLCAs areas within Yukon, Northwest Territories, Nunavut, Quebec, or Labrador will have to be treated as a separate procurement, outside of the Supply Arrangement.

A6.5 Authorities

6.5.1 Supply Arrangement Authority

The Supply Arrangement Authority is:

Leanne Nowakowski

Supply Specialist

Public Works and Government Services Canada

Atlantic Region, Acquisitions

1713 Bedford Row

Halifax, NS B3J 3C9

E-mail address: Leanne.Nowakowski@pwgsc-tpsgc.gc.ca

Telephone: 902-403-7112

Facsimile: 902-496-5016

The Supply Arrangement Authority is responsible for the issuance of the Supply Arrangement, its administration and its revision, if applicable.

6.5.2 Supplier's Representative

Name: _____

Title: _____

Address: _____

Email: _____

Telephone: _____

A6.6 Identified Users

The Identified User is: Real Property - Professional & Technical Services, Public Services and Procurement Canada, Atlantic Region.

A6.7 On-going Opportunity for Qualification

A Notice will be posted once a year on the Government Electronic Tendering Service (GETS) to allow new suppliers to become qualified. Existing qualified suppliers, who have been issued a Supply Arrangement, will not be required to submit a new arrangement but may refresh their arrangement to modify their Specialty services.

Existing Suppliers who have not maintained the professional and technical expertise required for provision of services under the Specialty Service(s) for which they have been issued a Supply Arrangement (see Section 9.1) are required to declare this and they will be removed from the Supply Arrangement list for that Specialty Service.

A6.8 Priority of Documents

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

- (a) the articles of the Supply Arrangement;
- (b) the general conditions 2020 (2017-09-21), General Conditions - Supply Arrangement - Goods or Services
- (c) Annex A, Example Requirement;
- (d) Annex B, Supplier List;
- (e) Annex C, Doing Business
- (f) the Supplier's arrangement dated _____

A6.9 Certifications and Additional Information

A6.9.1 Compliance

Unless specified otherwise, the continuous compliance with the certifications provided by the Supplier in its arrangement or precedent to issuance of the Supply Arrangement (SA), and the ongoing cooperation in providing additional information are conditions of issuance of the SA and failure to comply will constitute the Supplier in default. Certifications are subject to verification by Canada during the entire period of the SA and of any resulting contract that would continue beyond the period of the SA.

A6.10 Applicable Laws

The Supply Arrangement (SA) and any contract resulting from the SA must be interpreted and governed, and the relations between the parties determined, by the laws in force in _____.

A6.11 Transition to an e-Procurement Solution (EPS)

During the period of the Supply Arrangement, Canada may transition to an EPS for more efficient processing and management of individual contracts for any or all of the SA's applicable goods and services. Canada reserves the right, at its sole discretion, to make the use of the new e-procurement solution mandatory.

Canada agrees to provide the Supplier with at least a three-month notice to allow for any measures necessary for the integration of the Supply Arrangement into the EPS. The notice will include a detailed information package indicating the requirements, as well as any applicable guidance and support.

If the Supplier chooses not to provide the supply arrangement of their goods or services through the e-procurement solution, the Supply Arrangement may be set aside by Canada.

A6.11 Insurance

SACC Manual Clause R1250D (2017-11-28) General Condition (GC) 9 - Indemnification and Insurance

B. BID SOLICITATION

B6.1 Bid Solicitation Documents

The bid solicitation will contain as a minimum the following:

- (a) security requirements;
- (b) a complete description of the Work to be performed;
- (c) R1410T, General Instructions (GI) – Architectural and/or Engineering Services – Request for Proposal

Subsection 3.a) of Section 01, Integrity Provisions – Proposal, of the General Instruction (GI) – Architectural and/or Engineering Services – Request for Proposal R1410T incorporated by reference above is deleted in its entirety and replaced with the following:

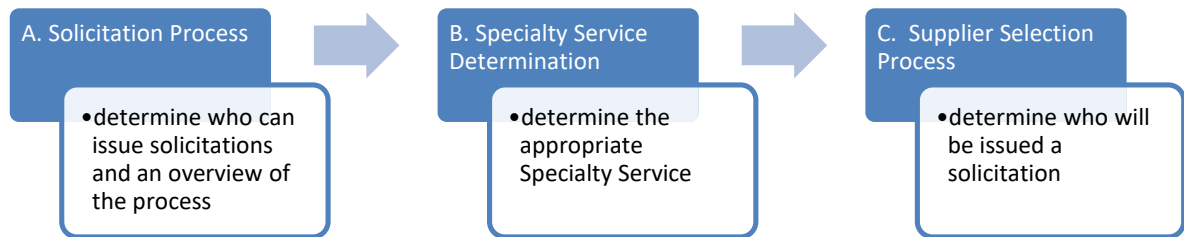
- a. at the time of submitting an arrangement under the Request for Supply Arrangements (RFSa), the Proponent has already provided a list of names, as requested under the Ineligibility and Suspension Policy. During this procurement process, the Proponent must immediately inform Canada in writing of any changes affecting the list of directors.
 - (d) bid preparation instructions;
 - (e) instructions for the submission of bids (address for submission of bids, bid closing date and time);
 - (f) evaluation procedures and basis of selection;
 - (g) certifications;
- ***Federal Contractors Program (FCP) for Employment Equity - Notification***
 - SACC Manual A3005T, A3010T for service requirements when specific individuals will be proposed for the work;
 - ***5.1.1 Integrity Provisions - Declaration of Convicted Offences;***
- (h) conditions of the resulting contract.

B6.2 Bid Solicitation Process

6.2.1 Proposals will be solicited for specific requirements within the scope of the Supply Arrangement (SA) from suppliers who have been issued a SA.

The following explains how government personnel will utilize this SA.

6.2.2 Selection Process:



A. Solicitation Process

- Proposals will be solicited for specific requirements within the scope of the Supply Arrangement from suppliers who have been issued an SA.
- The responsibility for the bid solicitation process and award of contracts will depend on the estimated fees of the proposed service (Identified User versus PSPC Acquisitions)
- Specific Security Requirements will be identified at the time of solicitation and will be mandatory upon bid closing
- Bid Response time will vary depending on the complexity of the project.
- The evaluation procedures and basis of selection for each requirement will be unique to each bid solicitation issued.
- Treasury Board Approval will be required in the event the recommended contractor for award is a Former Public Servant (FPS) as identified under the policy and the contract value is \$25,000 and over (applicable taxes included) for non-competitive requirements and \$100,000 and over (applicable taxes included) for competitive requirements.
- Solicitations will not be issued for deliveries within a Comprehensive Land Claims Settlement Area (CLCSA). All requirements requiring deliveries in a CLCSA are to be submitted to PWGSC for individual processing.

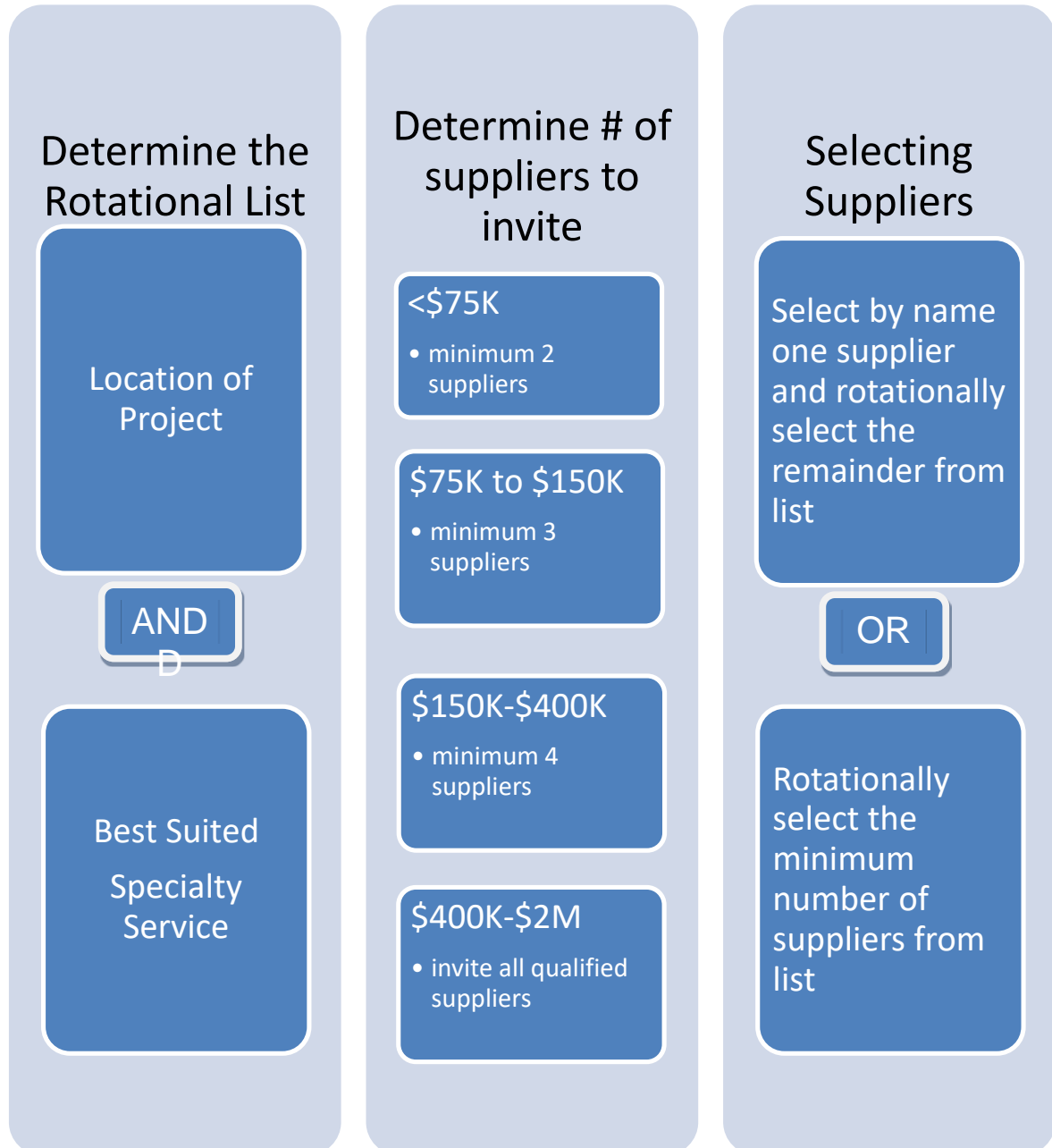
Identified Users (Part6A, 6. Identified Users) <\$75,000	PWGSC Acquisitions >\$75,000 to <\$2M
<ul style="list-style-type: none"> •Invited suppliers will be requested via e-mail for a technical/financial proposal. •Bids by email are permitted. •Identified users will sign and approve the contract. •Identified Users must determine whether they have the delegation of authority in order to proceed with any of the following thresholds. If Identified Users do not have delegation of authority to proceed, the requirement must be submitted to PWGSC Contracting Authority for processing. •Forms, PWGSC-TPSGC 9400-3 and PWGSC-TPSGC 9400-4, will be used as the first pages of the bid solicitation document and the resulting contract document, respectively. These forms are available on the Electronic Forms Catalogue Website, http://publiservice-app.tpsgc-pwgsc.gc.ca/forms/text/search_for_forms-e.html. 	<ul style="list-style-type: none"> •A Notice of proposed procurement (NPP) will be posted on GETS. •Invited suppliers will be requested via e-mail for a technical/financial proposal. •Bids are to be sent to the Bid Receiving Unit identified on the front page of the solicitation.

B. Specialty Service Determination

- PSPC will use the specialty service that best suits the project.
- The estimated construction or project costs will not be the only determining factor. PSPC technical project personnel will assess a proposed project's scope, complexity, risk, estimated construction or project costs to determine the specialty service.
- This is the first step in determining the rotational list to use in Annex B.

C Supplier Selection Process

- The geographical location of the project will be determined by the physical location of the work, not the location of the government department or PSPC office requesting the services.
- The **approximate consultant fees** will determine the number of suppliers to invite.
- The required number of suppliers can be rotationally selected from the list. Alternately PSPC may select one of the suppliers (out of rotational sequence) and the remainder in rotational sequence from the list.



C. RESULTING CONTRACT CLAUSES

C6.1 General

The conditions of any contract awarded under the Supply Arrangement will be in accordance with the resulting contract clauses of the template used for the bid solicitation.

For any contract to be awarded using the templates in the Annexes:

- (a) For requirements less than 100K, the below listed general conditions will apply to the resulting contract;
 - R1210D (2018-06-21), General Conditions (GC) 1 - General Provisions – Architectural and/or Engineering Services
 - R1215D (2016-01-28), General Conditions (GC) 2 - Administration of the Contract – Architectural and/or Engineering Services
 - R1220D (2015-02-25), General Condition (GC) 3 - Consultant Services
 - R1225D (2015-04-01), General Condition (GC) 4 - Intellectual Property
 - R1230D (2018-06-21), General Condition (GC) 5 - Terms of Payment – Architectural and/or Engineering Services
 - R1235D (2011-05-16), General Condition (GC) 6 - Changes
 - R1240D (2018-06-21), General Condition (GC) 7 - Taking the Services Out of the Consultant's Hands, Suspension or Termination
 - R1245D (2016-01-28), General Condition (GC) 8 - Dispute Resolution – Architectural and/or Engineering Services
 - R1650D (2017-11-28), General Condition (GC) 9 - Indemnification and Insurance
- (b) For requirements greater than \$100K, the below listed general conditions will apply to the resulting contract.
 - R1210D (2018-06-21), General Conditions (GC) 1 - General Provisions – Architectural and/or Engineering Services
 - R1215D (2016-01-28), General Conditions (GC) 2 - Administration of the Contract – Architectural and/or Engineering Services
 - R1220D (2015-02-25), General Condition (GC) 3 - Consultant Services
 - R1225D (2015-04-01), General Condition (GC) 4 - Intellectual Property
 - R1230D (2018-06-21), General Condition (GC) 5 - Terms of Payment – Architectural and/or Engineering Services
 - R1235D (2011-05-16), General Condition (GC) 6 - Changes
 - R1240D (2018-06-21), General Condition (GC) 7 - Taking the Services Out of the Consultant's Hands, Suspension or Termination
 - R1245D (2016-01-28), General Condition (GC) 8 - Dispute Resolution – Architectural and/or Engineering Services
 - R1250D (2017-11-28), General Condition (GC) 9 - Indemnification and Insurance

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

Note: The latest versions of the template and terms and conditions will be used at time of bid solicitation.

ANNEX A EXAMPLE REQUIREMENT

This Heavy Civil Engineering Supply Arrangement solicitation includes the Specialty Services noted in Part 1. The descriptions provided are general and represent typical services which may be sought under each of the Specialty Services.

The following is an example of Required Services that may be required for the proposed service(s). The actual Required Service(s) (RS) requested will be detailed in the bid solicitation document and will vary depending on the scope of the project. It may include all RSs, a single RS or a combination of RSs.

SAMPLE

GENERAL PROJECT OBJECTIVES

GPO 1 PROJECT OBJECTIVES

Each RFP will elaborate on the specific objectives for individual projects, however, the following broader government objectives will apply to all solicitations:

GPO 1.1 Design Principles - General

1. PWGSC expects the Consultant to maintain a high standard of engineering design, based upon recognized industry design principles. All design elements, planning, and engineering, must be fully coordinated and consistent in adherence to good design principles.

2. The level of quality is to be consistent with Government of Canada policies and guidelines as well as all other similar designed works performed for the Government of Canada.

3. The projects are to be implemented in a sustainable environmentally responsible manner.

4. Quality of materials and construction methods shall be commensurate with the type of infrastructure required and the budget. Avoid experimental materials. Take into account the total life-cycle costing of the infrastructure

5. Design for maximum flexibility to meet immediate and future needs.

GPO 1.2 Sustainable Development

The Canadian Federal Government has begun a series of initiatives to ensure that sustainable development principles are built into the policy of all federal organizations. Sustainable development goals will be outlined in each solicitation.

GPO 1.3 Code Compliance

Codes, regulations, by laws and decisions of "authorities having jurisdiction" will be observed. In cases of overlap, the most stringent will apply. The Consultant shall identify other jurisdictions appropriate to the project.

GPO 1.4 Risk Management

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

GPO 1.5 Health and Safety

1. Public Works and Government Services Canada (PWGSC), recognizes the responsibility to ensure the health and safety of all persons on Crown construction projects and the entitlement of both federal employees and private

sector workers to the full protection afforded them by occupational health and safety regulations.

2. In keeping with the responsibility and in order to enhance health and safety protection for all individuals on federal construction sites, PWGSC voluntarily complies with the applicable provincial/territorial construction health and safety acts and regulations, in addition to the related Canada Occupational Safety and Health Regulations.
3. The Consultant will be required to develop site specific Health and Safety Plans for their personnel while working on projects awarded under the Supply Arrangement. Prior to commencement of Work, develop written Health and Safety Plan specific to the Work. Implement, maintain, and enforce Plan for entire duration of Work and until final demobilization from site.

Health and Safety Plan shall include the following components:

- .1 List of health risks and safety hazards identified by hazard assessment.
- .2 Control measures used to mitigate risks and hazards identified.
- .3 On-site Contingency and Emergency Response Plan as specified below.
- .4 On-site Communication Plan as specified below.

On-site Contingency and Emergency Response Plan shall include:

- .1 Operational procedures, evacuation measures and communication process to be implemented in the event of an emergency.
- .2 Evacuation Plan: prior to entering the Work Site confirm escape routes, marshalling areas, and location of fire fighting equipment.
- .3 Emergency Contacts: name and telephone number of officials from:
 - .1 Departmental Representative.
 - .2 Pertinent Federal and Provincial Departments and Authorities having jurisdiction.
 - .3 Local emergency resource organizations.
 - .4 Harmonize Plan with Facility's Emergency Response and

Evacuation Plan. Departmental Representative will provide pertinent data including name of PWGSC and Facility Management contacts.

On-site Communication Plan:

- .1 Procedures for sharing of work related safety information to subconsultants, including emergency and evacuation measures.

- .2 List of critical work activities to be communicated with Facility Manager which have a risk of endangering health and safety of Facility users.

Address all activities of the Work including those of subconsultants. Review Health and Safety Plan regularly during the Work. Update as conditions warrant to address emerging risks and hazards, such as whenever a new subconsultant arrives at Work Site.

Departmental Representative will respond in writing, where deficiencies or concerns are noted and may request re-submission of the Plan with correction of deficiencies or concerns.

GPO 1.6 PWGSC Standards and Procedures

For standards relating to the service provisions required, please refer to the document Doing Business.

GPO 2 ISSUES

GPO 2.1 Major Cost Issues

Issue: Budget Limitations
Effective cost estimating and cost control is of prime importance and shall be provided by qualified personnel. The Class 'C' and Class 'B' cost estimates, where required, shall be submitted in elemental cost analysis format. The standard of acceptance for this format is the current issue of the elemental cost analysis format issued by the Canadian Institute of Quantity Surveyors. The level of effort will be noted in the individual solicitation.

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

GPO 2.2 Major Time Issues

Issue: Out of Service Time Frame
It is imperative that the out of service time frame for the various projects as a result of construction be minimized as much as possible. Program operations and time frames will govern the particular allotted time frame for construction through the identified solicitation.

GPO 2.3 Major Operational Issues

Issue: Adjacent Programs
Minimize impact of any ongoing adjacent programs is mandatory and therefore design decisions must be sensitive to that requirement. Additional factors recognized as affecting adjacent programs are the following: reliability of systems and equipment, redundancy to ensure continued operation and prolonged commissioning issues.

PROJECT ADMINISTRATION

PA 1 INTENT

The following administrative requirements apply during all phases of project delivery and will be stipulated in each solicitation.

PA 1.1 Coordination

- 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 administers the project and exercises continuing control over the Consultant's work during all phases of development. Unless directed otherwise by the Project Manager, the Consultant obtains all Federal requirements and approvals necessary for the work. The Consultant shall:
 - Carry out services in accordance with approved documents and directions given by the Project Manager;
 - Prior to starting any project, obtain the Project Manager's approval of sub-consultant(s). Upon receipt from the Project Manager of written confirmation that the proposed sub-consultant(s) are acceptable, execute the solicitation;
 - Ensure all communications carry the PWGSC's Project Title, Project Number and File Number, Callup Number,WBS Number;
 - Advise the Project Manager of any changes that may affect schedule or budget or are inconsistent with instructions or written approvals previously given. The Consultant shall detail the extent and reasons for the changes and obtain written approval before proceeding.

PA 1.2 Coordination with Sub-Consultants

The consultant shall:

- Throughout all stages of the Project, coordinate and assume responsibility for the work 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 reviews to post construction reports;
- Ensure Sub-Consultants provide adequate site inspection services and attend all required meetings.

PA 1.3 General Project Deliverables

- Where deliverables and submissions include summaries, reports, drawings, plans or schedules, ___ hard copies shall be provided plus ___ copy shall be provided in electronic format as follows unless approved otherwise in Appendices. Electronic format shall mean:

- | | | |
|-----|----------------------------------|-------------------------|
| (1) | For written reports and studies: | Microsoft Word and PDF; |
| (2) | For Spreadsheets, and budgets: | Microsoft Exel and PDF; |

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(3) For Presentations: (4) For Drawings: Doing Business;	Microsoft Power Point; AutoCad 2012 (* .dwg) refer to	For each solicitation, work in progress may be reviewed by the Project Manager as well as a minimum, the following:
(5) For Specifications: (6) Word as specified by the project manager;	Either most recent version NMS Edit or MS	PWGSC in-house resources:
Note: All specifications must be developed starting with an unedited copy of the NMS and edited as appropriate for the specifics of the project. Edits of previously edited sections of the NMS are not acceptable.		<ul style="list-style-type: none"> • <u>Submission Format</u>: drawings and specifications; • <u>Submission Schedule</u>: Submissions are reviewed at a time to be arranged with 10 days notice when completed work has been forwarded to the Project Manager; • <u>Expected Turnaround Time</u>: 2 weeks; • <u>Number of Submissions</u>: until approval has been received.
(7) For Schedules (Time Plans) (8) For GIS	Microsoft Project; ARCGIS refer Doing Business.	
PA 1.4 Lines of Communication		
1. Correspond only with the Project Manager or named designate(s) at the times and in the manner dictated by the Project Manager. The Consultant shall not communicate with the client department unless so authorized in writing by the Project Manager.		Design review committee:
2. During construction tender call, Public Works and Government Services Canada conducts all correspondence with bidders and makes the contract award.		<ul style="list-style-type: none"> • <u>Submission Format</u>: reports, drawings and specifications, and oral presentations; • <u>Submission Schedule</u>: Submissions are reviewed at a time to be arranged with 10 days notice; • <u>Expected Turnaround Time</u>: 2 weeks; • <u>Number of Submissions</u>: until approval has been received.
3. After contract award the Consultant shall follow communication protocol call as received from PWGSC.		Reviews and approvals will be established at the time of issuing a solicitation and the below table is provided for example purposes only.

PA 1.5 Media

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

PA 1.6 Meetings

- The Project Manager shall arrange meetings as required per solicitation relative to project scope and phase of work, for members of project team, including representatives from:
 - (1) Client Department;
 - (2) Public Works and Government Services Canada;
 - (3) Consultants.

- The Consultant shall attend the meetings, record the issues and decisions and prepare and distribute minutes within 48 hours of the meeting.

PA 1.7 Project Response Time

It is a requirement of this Request for Supply Arrangement that the Prime Consultant and their proposed Sub-consultants should be personally available to attend meetings **within 48 hours**, in the locality of the place of the work and to respond to inquiries **within 24 hours** of the Project Manager's request, from the date of the award of the solicitation until final inspection and turnover.

PA 1.8 Submissions, Reviews and Approvals

submitted to the Project Manager for approval, prior to their being engaged for the work.

3. The RS sections following are intended to show the level of effort required for a 'full service' package. Individual solicitations will include a scope of services required for that specific project, which may or may not include all of the services noted in the sections below. Services that are required for a specific solicitation are to follow the guidelines as set out herein.

RS 1.0 PRE-DESIGN SERVICES

1. The purpose of this stage is to develop, as required by the scope of work
- (1) Feasibility Studies/Options Analysis;
 - (2) Project Approach;
 - (3) Implementation Strategy and Schedule;
 - (4) Site Condition Reports and Performance Audits;
 - (5) Infrastructure Evaluation & Recommendations Report;
 - (6) Engineering/Geotechnical or Other Investigations;
 - (7) Environmental Protection Requirements (limited to services as required to identify the need for further investigation/analysis);
 - (8) Order of Magnitude Class 'D' (Indicative) Cost Reports;
 - (9) Hydrology and Drainage Structure Sizing Design;
 - (10) Regulatory Issues.

RS 1.1 Feasibility Studies / Options Analysis

1.1.1 Intent

A report which outlines the research and subsequent analysis to determine the viability and practicality of a project. A feasibility study analyzes economic, financial, market, regulatory, environmental/sustainable and technical issues. The purpose at this stage is to investigate and analyze site conditions, including soil conditions, zoning, bylaws, traffic reports, service capacities, support systems, special purpose support systems, and provide recommendations.

1.1.2 Scope and Activities

Feasibility Study includes as a minimum:

1. Attend project start up meeting:
 - (1) Visit the site, investigate and analyze the needs of the project;
 - (2) Investigate the requirements for the particular site, including existing and new technologies;
 - (3) Analyze the project requirements/program;
 - (4) Review all available existing material related to the site;
 - (5) Investigate and analyze all applicable codes, regulations standards as a minimum: National Building Code, Canada Labour Code, NFPA, Provincial Occupational Health and Safety Act, Medical Research Council; Environmental and DFO acts and regulations.

	PWGSC		Client	
	R	A	R	A
Risk Assessments	x	x	x	
Environmental Protection Plan	x	x	x	x
Project Scope of Services		x	x	
Class 'D' Estimate(s)		x	x	
Design Options	x		x	
Recommended Design Option		x		x
Class 'C' Estimate(s)		x	x	
Design Development Documents		x	x	
Class 'B' Estimate(s)		x	x	
33% Construction Drawings		x	x	
66% Construction Drawings and Specs		x	x	
99% Construction Drawings and Specs		x	x	
Class 'A' Estimate(s)		x		x
Final Tender Documents		x		x
Inspection Report	x	x	x	

A = Approval

R = Review

REQUIRED SERVICES

General Scope of Services:

1. Be advised that services provided must be complete in that they identify all major issues that will have a significant impact on the project. This will promote a surprise-free environment which will enhance the success of project implementation.
2. If the project requirements are such that the Prime Consultant is asked to provide a sub consultant team, the proposed sub consultant names are to be

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| <p>2. Evaluate existing infrastructure including: municipal, civil, environmental, mechanical, electrical and structural systems, functional adaptability, code compliance, hazardous and non-hazardous waste;</p> <p>3. Identify and verify all authorities having jurisdiction over the project;</p> <p>4. Establish a policy for this project to minimize environmental impacts consistent with the project objectives and economic constraints, and the application of the <i>Canadian Environmental Assessment Act (CEAA)</i>;</p> <p>5. Review the proposed project milestones for verification that all dates are achievable;</p> <p>6. Review the cost plan/budget for verification that the costs are realistic and achievable; and</p> <p>7. Prepare recommendations on the feasibility of the project.</p> <p>Options Analysis as a minimum:</p> <p>1. Test the feasibility study recommendations using a minimum of three (3) options, schematic (sketch) only;</p> <p>2. Pro/ Cons of each option;</p> <p>3. Financial analysis (Class 'D') including life cycle analysis and best value for operation and maintenance;</p> <p>4. Indication of the preferred option.</p> <p>1.1.3 Deliverables:</p> <p>1. Comprehensive summary of the requirements, conditions, feasibility and options analysis, demonstrating an understanding of the scope of work, including:</p> <ol style="list-style-type: none"> (1) Report on existing infrastructure including its condition, deficiencies and life expectancy; (2) Report on existing facilities and systems requirements; (3) Report on all applicable codes, regulation, standards and authorities having jurisdiction; (4) Report on potential environmental impact, sustainability and the whether there is a need for further environmental assessment; (5) Report on recommendations and options analysis; (6) Confirmed or adjusted project cost and time plans; (7) Written identification of the problems, conflicts or other perceived information/clarity assumptions for the acknowledgment of the project manager; (8) Report on Class 'D' Order of Magnitude Cost for each option. <p>RS 1.2 Project Approach</p> <p>1.2.1 Intent</p> <p>1. A written statement which describes various criteria and data for a project including design objectives, site requirements and constraints, equipment and systems, and requirements. The purpose of this stage is to describe the requirements which must be met to satisfy the requirements of the project. The process seeks to answer the following questions:</p> <ol style="list-style-type: none"> (1) What is the nature and scope of the problem? | <ol style="list-style-type: none"> (2) What information is required to develop a proper engineering solution to the problem? (3) How much and what type of construction is needed? (4) What are the future requirements of this site <p>1.2.2 Scope and Activities</p> <p>1. In preparing a functional program, the Consultant's main task is to examine the project/ site in detail so as to define the clients needs and objectives. These requirements will establish criteria for evaluating potential design solutions and other strategic alternatives.</p> <p>2. The Consultant must understand:</p> <ol style="list-style-type: none"> (1) The impacts of the project on the environment; (2) The social impacts of its program on the community; (3) The impacts on the existing infrastructure; (4) Long term maintenance requirements and operational needs. <p>3. The Consultant shall then develop approximate sketches and technical requirements for the proposed works including:</p> <ol style="list-style-type: none"> (1) Details for proposed works; (2) Environmental criteria; (Note: It is not the intent of this Supply Arrangement to procure Environmental Assessment services from this Consultant. However, on many projects, environmental criteria, identified by others, may need to be incorporated into the design.) <p>4. The Consultant shall also advise Project Manager on alternatives, such as the engineering and financial implications of various options. The Consultant shall assist in assessing the advantages or benefits - and the disadvantages or costs - of each alternative.</p> <p>1.2.3 Deliverables:</p> <p>1. The final Project Review is a report including as a minimum:</p> <ol style="list-style-type: none"> (1) Site requirements; (2) Explicit space requirements for the future of the site including: <ol style="list-style-type: none"> b) Definition of the function of each type of infrastructure; c) The functional relationships between different types of infrastructure or areas; d) Site and sketch of the different infrastructures; e) Special technical requirements of each of the items. (1) Financial requirements and a preliminary "Order of Magnitude "Class 'D' budget; (2) Scheduling and time frame for the project; (3) Other requirements including: <ol style="list-style-type: none"> f) Regulatory issues; g) Other requirements from Authorities having Jurisdiction; h) Community goals and concerns; i) Ecological and environmental concerns. (1) A recommended construction delivery method (traditional design-bid-build, design-build, construction management). |
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RS 1.3 Implementation Strategy and Schedule

1.3.1 Intent

The purpose of this stage is to detail an implementation strategy to meet the project goals and objectives.

1.3.2 Scope and Activities

The Consultant shall complete the following as a minimum:

1. Prepare a detailed implementation strategy that documents, in a report, all activities, milestones and deliverables required for the effective delivery of the project including time frames for submissions, reviews and approvals;
2. Prepare a project schedule that identifies, in a graphic format such as Critical Path Method (CPM) or Program Evaluation Review Technique (PERT), all activities, milestones including critical deadlines, long lead delivery items and drop dead dates, required for the effective delivery of the project deliverables, including time frames for submissions, reviews and approvals;
3. The Implementation Strategy and Schedule described above shall include as a minimum:

- (1) Site Master Plan;
- (2) Sequencing of project tasks including items not included as part of constructed works;
- (3) Move sequencing;
- (4) Client construction requirements (i.e. Security and training, etc.);
- (5) Construction strategy;
- (6) Advise the Project Manager of any changes to the scope that may affect schedule or are inconsistent with instructions or written approvals previously given. The Consultant shall detail the extent and reasons for the changes and obtain written approval before proceeding;
- (7) Submit the Implementation Strategy and Schedule for review. Revise as required. Resubmit for final approval. The original approved schedule will become the "Baseline" schedule to monitor project progress;
- (8) Throughout the project, monitor critical path and deadlines for submissions, revisions and approvals and as a minimum submit monthly updates.

1.3.3 Deliverables

1. Implementation strategy
2. Time Plan (Schedule)

RS 1.4 Site Condition Reports and Performance Audits

1.4.1 Intent

1. The purpose of this stage is to evaluate a site in order to determine the most appropriate management strategy for the retention, maintenance and/or retrofit / renewal of the infrastructure in order to satisfy current and future client requirements.

2. The cyclical review of infrastructure consists of the performance of a range of major evaluation and analysis studied:

- (1) Management Plans
- (2) Condition Reports
- (3) Performance Reviews
- (4) Serviceability

3. The scope of these cyclical reviews provides, in general terms an examination of inventory performance in five major areas:

- (1) Operational Performance
- (2) Functional Performance
- (3) Financial Performance
- (4) Technical Performance
- (5) Environmental Performance

1.4.2 Scope and Activities

1.4.2.1 Project Start-up

- A Start-Up Meeting will be held at the time and place to be determined by the Project Manager.

1.4.2.2 Research Phase

This phase represents the site pre-inspection review of the existing documentation in order to confirm the range of information available and to identify any missing components or areas of concern which will require special attention during the next phase - Infrastructure review.

1.4.2.3 Infrastructure review

1. The Consultant team will undertake a detailed review of the current performance conditions of the infrastructure with respect to:
 - (1) Operational, Functional, Technical and Financial Performance.
2. The Consultant team will review pertinent information provided on the current performance conditions of the infrastructure with respect to Environmental performance.
3. With respect to maintenance, the consultant will:
 - (1) assess the levels of maintenance with respect to infrastructure meeting its anticipated life cycle;
 - (2) ensure that maintenance is completed to a level so as to avoid failure that could impact on users;
 - (3) Ensure that systems are evaluated for maintenance and testing.
 - (4) The on-site review will be structured in such a manner as to identify and document the inter-relationship of the findings for each specific set of performance criteria as they are affected by other sets of criteria.

1.4.2.4 Report Development

After inspections data is analyzed with respect to condition, remaining useful life, code compliance, condition descriptions, and their impact on the functionality of the asset, and priorities for intervention are established.

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1.4.3 Deliverables		
1. Content Plan: This section of the Terms of Reference outlines the format and minimum scope of review to be undertaken in the performance of this infrastructure condition study.		
2. The format has been developed in order to provide a direct link with the development of a Site Management Plan and therefore must be strictly adhered to.		
3. The content plan is divided into seven major divisions and appendices: (1) Executive Summary; (2) Project Framework/Introduction; (3) Operational Performance; (4) Functional Performance; (5) Technical Performance; (6) Environmental Performance; (7) Infrastructure Components Summary Tables; (8) Appendices: a) Annual Inspections; b) Serviceability; c) Performance Audits; d) Environmental Audit (prepared by others if/as appropriate); e) Other Audits and Studies.		
RS 1.5 Infrastructure Evaluation & Recommendations Reports		
1.5.1 Intent The purpose of this stage is to identify and evaluate existing infrastructure including as a minimum civil infrastructure, mechanical and electrical equipment and all other infrastructure which will be utilized in the current and future operation of the site.		
1.5.2 Scope and Activities 1. Prepare a detailed inventory of existing infrastructure and equipment found on the site. Include drawings identifying existing location, layout.		
2. Based on parameters developed in conjunction with the Project Manager and the client department, prepare an evaluation report that assesses the condition of existing infrastructure and equipment. Assess the current inventory against the client department's functional requirements. Include an examination of the following: (1) Reusing/refurbishing existing infrastructure and equipment; and/or (2) Procuring/ constructing new infrastructure and equipment; and (3) Current technologies and innovative solutions for the site; (4) Prepare a detailed cost analysis that compares the reuse/refurbishment of existing infrastructure and equipment, with the purchase of new . Consideration should be given to cost effectiveness and time frames required for refurbishment of existing infrastructure and equipment and/or the procurement of new.		
1.5.3 Deliverables Submit report for review, revise as required and resubmit for final approval.		
RS 1.6 Engineering/ Geotechnical or Other Investigations		
1.6.1 Intent The purpose of this stage is to research and carry out all Geotechnical and Engineering investigations, as a minimum, to complete the requirements of the site or project.		
1.6.2 Scope and Activities 1. Conduct investigations to obtain the required information, as a minimum Geotechnical and Engineering, to prepare and carry out the activities necessary to establish the required infrastructure for the site or project. 2. Prepare report on each investigation clearly describing what information was required, why it was required and what the results were.		
1.6.3 Deliverables Submit report for review, revise as required and resubmit for final approval.		
RS 1.7 Environmental Protection Requirements		
1.7.1 Intent The purpose of this stage is to outline the requirements for discharge off site, erosion control and water management, environmental protection, waste management and permitting.		
1.7.2 Scope and Activities 1. Prepare a report that identifies environmental protection requirements and make appropriate recommendations.		
2. Prepare requirements for a water management, waste management and environmental protection plans for construction and post construction stages.		
1.7.3 Deliverables Submit report for review, revise as required and resubmit for final approval.		
RS 1.8 Order of Magnitude Class 'D' (Indicative) Cost Reports		
1.8.1 Intent The purpose of this stage is to provide an indication of the total cost of the project, based on the user's functional requirements to the degree known at the time. It is based on historical cost data for similar work, suitably adjusted for such factors as: effect of inflation, location, risk, quality, size and time. All related factors affecting cost are considered to the extent possible. Such an estimate is strictly an indication (rough order of magnitude) of the project total cost and completion date. This estimate is used to establish the indicative estimate required by Treasury Board for Preliminary Project Approval. Expected degree of accuracy: 20%.		

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1.8.2 Scope and Activities:		A study of the local hydrology to assess the requirements for drainage structure design.
1.	Cost Planning: Specific tasks include as a minimum: <ul style="list-style-type: none"> (1) Prepare cost plans from project briefs, preliminary concepts or other preliminary information; (2) Prepare cost analysis; (3) Prepare option analysis and "what if" scenarios; (4) Provide advice and recommendations on project planning in order to achieve the most cost effective project sequence; (5) Identify and quantify potential risks and make contingency recommendations in order to minimize negative cost impacts; (6) Advise on alternative procurement and construction strategies to create efficiencies wherever possible; (7) Identify, forecast and analyze project-related issues including possible market shortages and potential price fluctuations. 	1.9.2 Scope and Activities: To review and summarize aspects of drainage requirements for a project and to calculate the structure type and sizing requirements.
2.	Cost Estimating: Develop cost estimates of projects: <ul style="list-style-type: none"> (1) Prepare order of magnitude Class 'D' cost estimates; and be prepared to further develop the cost estimate to level Class 'A' ready for tender. (2) Quantify design and construction costs, contingencies and risks; (3) Prepare and investigate costing alternatives to assist in the identification of the most cost-effective design and/or construction approach; Investigate and report on life-cycle costs; (4) Document all unit pricing, analysis, and valuation. 	1.9.3 Deliverables A detailed engineering design of drainage structures for each project requirement and a report that outlines the basis for structure sizing and location.
1.8.3 Deliverables		RS 1.10 Regulatory Issues
1.	Cost Planning <ul style="list-style-type: none"> (1) Cost plans; (2) Cost analyses and "what if" scenarios; (3) Cash flows; and / or (4) Reports on alternative procurement and construction strategies or other project-related issues. 	1.10.1 Intent To confirm that all design meets all requirements as set forth by code and regulatory authorities having jurisdiction.
2.	Cost Estimating <ul style="list-style-type: none"> (1) Fully detailed cost estimate. Order of magnitude Class 'D' accuracy; and be prepared to further develop the cost estimate to level "A" ready for tender. (2) Documentation of the methodology of the estimate and any assumptions made; (3) Documentation of all pricing and valuation calculations; (4) Reports on investigation of costing alternatives; and / or (5) Reports on life-cycle costs. 	1.10.2 Scope and Activities: To attend meetings for discussion purposes of any design issues and to resolve any design issues.
1.9 Hydrology and Drainage Structure Sizing Design		1.10.3 Deliverables Plans and specifications compliant with necessary requirements meeting regulatory and code requirements.
1.9.1 Intent		RS 2.0 CONCEPT DESIGN
		2.1 Intent To translate the project requirements into preliminary design to explore design options and analyze them with respect to priorities and program objectives previously identified. Out of this process, one option will be recommended to proceed to Design Development.
		2.2 Scope and Activities: <ul style="list-style-type: none"> 1. Obtain written approval from Project Manager for development of schematic design options based on the analysis of the Project Brief; 2. Provide alternative design options exploring possible technical and environmental strategies which are viable and have potential for development; 3. Analyze each solution with regard to the project goals including cost and schedule; 4. Write a preliminary project-description report outlining the various components and system options;

5. Incorporate the findings of environmental assessment and Canadian Environmental Assessment Act (CEAA) Screening Report (prepared by others), if required/requested;
 6. Minimize the use of hazardous/toxic materials and products made from endangered or rare species (i.e. tropical hardwoods);
 7. Recommend one option for further development with all supporting background and technical justifications;
 8. Produce a Class 'C' cost estimate for the various options; and be prepared to further develop the cost estimate to level Class 'A' ready for tender.
 9. Produce an implementation schedule, including alternative procurement and construction strategies.
- 2.3 Deliverables**
 10. Schematic Design Drawings;
 11. Site plan showing proposed works, existing infrastructure, existing and proposed services and fit within surrounding context;
 12. Description of the options with recommendation of preferred solution;
 13. Waste Management plan
 14. Project specification amendment;
 15. Plan to incorporate the recommendations of decisions for the CEAA (prepared by others), if required/requested;
 16. Cost Plan, including cost analysis, "what if" scenarios, potential risks, alternative procurement and construction strategies;
 17. Class 'C' Cost Estimate, including methodology of the estimate, assumptions made, costing alternatives and life cycle costs. Document all unit pricing, analysis, and valuation
 18. Prepare project master schedule and identify potential risks to schedule;
 19. Report on deviation from schedule and recommend corrective measures or updated time line.
- 3.3 Deliverables**
 1. Plans for all works, including all disciplines, showing all infrastructure. Indicating all key dimensions;
 2. Preliminary works plans and plans for site preparation;
 3. Engineering plans and details.
 4. Elevations;
 5. Site models as required;
 6. Outline specifications for all systems and principle components or equipment;
 7. Updated cost plan and cash flow;
 8. Class 'B' (substantive) cost estimate showing changes from Class 'C' (indicative) cost estimate
 9. Update time plan (Schedule) with highlighted changes to the time plan;
 10. Preliminary construction schedule including long term delivery items;
 11. Project dossier detailing the basic assumptions of the project and the justifications for all major decisions;
 12. Prepare a Commissioning Brief describing major commissioning activities which include, as a minimum, civil, mechanical, electrical, municipal and integrated system testing.
 13. Updated sustainable development strategy report.

RS 3.0 DESIGN DEVELOPMENT

- 3.1 Intent**
To further develop one of the options presented at the Concept Design stage. The Design Development documents consist of drawings and other documents to describe the size and character of the entire project as to engineering, structural, environmental, mechanical and electrical systems, materials and such other elements as may be appropriate.

3.2 Scope and Activities:

20. Obtain written approval from Project Manager for development of one of the proposed concept design options;
21. If any alterations are demanded, document all required changes, analyze the impact on all project components, and resubmit for approval if required;
22. Expand and clarify the Concept Design intent for each design discipline;
23. Present the design materials to the client, design review or other committees as indicated by the project manager;
24. Present the design to the government or local authorities where required;
25. Ensure coordination of all disciplines' design development;

RS 4.0 CONSTRUCTION DOCUMENTS

- 4.1 Intent**
Based on approved Design Development documents, the Consultant is required to prepare drawings and specifications setting forth in detail the requirements for the final cost estimate and construction of the project.
15. To prepare drawings and specifications setting forth in detail the requirements for the construction and final cost estimate of the project.
 - (1) 33% indicates technical completeness of all working documents;
 - (2) 66% indicates substantial technical development of the project - well advanced engineering and engineering plans, details, schedules and specifications;
 - (3) 99% is the submission of complete Construction Documents ready for tender call and submission to local authorities for pre-permit purposes;
 - (4) Develop project specific Systems Operations Manual (SOM);

- (5) Final Submission incorporates all revisions required in the 99% version and is intended to provide PWGSC with complete construction documents for tender call.

4.2 Scope and Activities:

Activities are similar at all three stages; completeness of the project development should reflect the stage of a submission.

- (1) Obtain Project Manager's approval for Design Development submissions (33%, 66%, 99% and Final)
- (2) Requirements pertaining to such elements as format, type, content, number of copies, etc. For the preparation and submission of Construction Documents are presented in PA 1 and in Doing Business.
- (3) Confirm format of drawings and specifications;
- (4) Clarify special procedures (i.e. phased construction);
- (5) Submit drawings and specifications at the required stages. (33%, 66%, 99%);
- (6) Provide written response to all review comments and incorporate them into Construction Documents where required;
- (7) Advise as to the progress of cost estimates and submit updated cost estimates as the project develops;
- (8) Update the project time plan (schedule);
- (9) Prepare a final Class 'A' (substantive) estimate;
- (10) Review and approve materials and construction processes specifications to meet sustainable development objectives.

4.3 Details

1. Technical and Production Meetings
 - (1) Production of construction documents at the 33%, 66%, and 99% submissions will be reviewed during the meetings arranged by Project Manager and Consultant;
 - (2) Representatives from Client Department(s) and PWGSC support staff will be present as arranged by the Project Manager;
 - (3) Consultant shall ensure that their staff and the sub-consultant representatives attend the technical and production meetings as required;
 - (4) Consultant shall ensure all documents are coordinated with all sub-consultants and disciplines;
 - (5) Consultant shall arrange for all necessary data, progress prints, etc.;
 - (6) Consultant shall prepare minutes of the meetings and distribute copies to all participants.
2. Progress Review
 - (1) As work progresses on construction drawings, submit, from each discipline, drawings, schedules, details, pertinent design data and updated Cost Plan and Project Schedule as required.

4.4 Deliverables

3. Deliverables are similar at all three stages; completeness of the project development should reflect the stage of a submission.

4. 99% Submission:
 - (1) Complete specification and working drawings.
 - (2) 99% Commissioning plan and Systems Operations manual
 - (3) One copy of site information, soil investigation report, borehole logs, etc.
 - (4) One copy of support data, studies, calculations, etc., required by Engineering disciplines for final checking and record.
 - (5) One copy of updated Cost Plan and Project Schedule
5. Final Submission:
 - (1) This submission incorporates all revisions required by the review of the 99% submission. Provide the following:
 - b) Ten complete sets of originals of the working drawings;
 - c) Ten sets of original specifications;
 - d) Class 'A' estimate;
 - e) Complete Commissioning Plan;
 - f) Complete Systems Operations Manual;
 - g) As a safeguard against loss or damage to the originals, retain a complete set of drawings in reproducible form and one copy of specification;
 - h) Inspection Authorities Submission;
 - i) Submit and obtain approval on plans and specifications required by Inspection Authorities before tender call.

RS 5.0 TENDER CALL, BID EVALUATION & CONSTRUCTION CONTRACT AWARD

5.1 Intent

To assist in obtaining and evaluating bids from qualified contractors to construct the project as per the Tender Documents.

5.2 Scope and Activities:

1. Tender Call
 - (1) The Project Manager shall be responsible for the production of the required number of copies of the Tender Documents and for such other documents as are necessary for tender call purposes.
 - (2) The Consultant shall:
 - b) Prepare, sign, seal and submit complete sets of approved tender-ready, Construction Drawings and Specifications to the Project Manager. Requirements pertaining to number and types of copies of Construction Drawings and Specifications are outlined below under PA 1.
 - c) Provide the Project Manager with all information required by tenderers to fully interpret the Construction Documents. The Contracting Authority will issue the addenda to all participants.

- | | | | |
|----|---|-----|--|
| d) | Attend tenderers briefing meeting(s) (i.e. Job Showing), upon request | (1) | Electronic true copy of the final submission drawings and specifications on one or multiple CD-ROM in Portable Document Format (PDF) in accordance with Doing Business. The PDF files should be the greatest extent possible be derived from the native software in which they were created and must not have any password protection and printing restrictions. |
| e) | Prepare addenda based on questions arising in such meetings for issue by the Contracting Authority. The Contracting Authority will issue the addenda to all participants; and | | |

2. Bid Evaluation and Construction Contract Award

- (1) The Consultant shall, as a minimum, assist tender evaluation by providing advice on such elements as;
- b) The completeness of tender documents in all respects;
 - c) The technical aspects of the tenders;
 - d) The effect of alternatives and qualifications which may have been included in the tender;
 - e) The tenderers capability to undertake the full scope of work;
 - f) The availability of adequate equipment to carry out the work;
 - g) Examine and report on any cost and schedule impact created by the issue of tender / contract addenda.
- (1) If PWGSC decides to re-tender the project, provide advice and assistance to the Project Manager;
- (2) Revise and amend, at your cost, the construction documents to bring the cost of the work within the limits stipulated.

5.3 Deliverables

1. Originals of drawings and specifications;
2. Electronic copies of drawings and specifications;
3. Addenda where needed;
4. Full notes of all inquiries, and related correspondence, during the bidding period;
5. Changes to the documents, if re-tendering is necessary;
6. Updated cost estimate or schedule;
7. Submission Requirements for Construction Drawings and Specifications;
8. Provide three (3) complete sets of approved Construction Drawings as follows:
 - (1) One (1) hard copy, signed and sealed; and
 - (2) Two (2) electronic copies (one in native format and one in PDF format);
9. Provide three (3) sets of approved Construction Specifications as follows:
 - (1) One (1) hard copy properly bound and covered; and
 - (2) Two (2) electronic copies (one in native format and one in PDF format).
10. The electronic true copy of drawings and specifications is for tendering purposes only and do not require to be signed and sealed.
11. The original signed and sealed hard copy of drawings and specifications will be the version used by the successful contractor for construction and building permit purposes.
12. Electronic Versions of Construction Drawings and Specifications

RS 6.0 CONSTRUCTION & CONTRACT ADMINISTRATION & POST CONSTRUCTION WARRANTY REVIEW

6.1 Intent

To ensure the implementation of the project in compliance with the Contract Documents and to direct and monitor all necessary or requested changes to the scope of work during construction.

6.2 Scope and Activities:

1. During the implementation of the project, act on PWGSC's behalf to the extent and scope noted in the call up;
2. Carry out the review of the work at intervals appropriate to determine if the work is in conformity with the Contract Documents;
3. Attend site and or job meetings as required;
4. Keep Project Manager informed of the progress and quality of the work and report any defects or deficiencies in the work observed during the course of the site review;
5. Ensure compliance with Commissioning Plan, update plan as necessary;
6. Determine the amounts owing to the Contractor based on the progress of the work and certify payments to the contractor for approval;
7. Act as interpreter of the requirements of the Contract Documents;
8. Provide cost advice during construction;
9. Advise the Project Manager of all potential changes to scope, schedule and cost, for the duration of the implementation;
10. Review the Contractor's submittals;
11. Prepare and justify change orders for issue by the Departmental Representative;
12. Indicate any changes or material/equipment substitutions on Record Documents;
13. During the twelve (12) month warranty period investigate all defects and alleged defects and issue instructions to the Contractor;
14. Prepare and post Systems Operating Instructions;
15. Assist in commissioning activities as requested;
16. Finalize Systems Operations Manual;
17. Conduct a final warranty review and coordinate as built of the final work.;

6.3 Deliverables

1. Written reports from site visits including persons involved;
2. Written reports on the progress of the work and the cost of the project at the end of each month;
3. Additional detail drawings when required to clarify, interpret or supplement the Construction; Documents

4. Post contract drawings (As-Built Drawing);
5. Interim or Final certificates;
6. Debrief of Commissioning Activities;
7. As built records;
8. Warranty deficiency list;
9. Report on Final Warranty Review;

RS 7.0 RISK MANAGEMENT (ALL STAGES)

7.1 Intent

The consultant is to provide support to the Project Manager in identifying risks throughout the project life cycle.

7.2 Scope and Activities:

1. Identify risk events based on past experience and using proposed checklist or other available lists;
2. Qualify/quantify probability of risk event (Low, Medium, High) and their impact (Low, Medium, High);
3. Prioritize risk events (i.e. concentrate efforts on risk events with High probability and Medium to High impact);
4. Develop risk response (i.e. evaluate alternatives for mitigation. This is the real added-value of risk management); and
5. Implement risk mitigation.

7.3 Deliverables

1. Prepare Risk Management Reports at Design Development, 66% Design Documents, and 100% Design Documents stages;
2. Include input from all sub-consultants, and from Client;
3. Take steps to implement risk mitigation. This includes as a minimum further recommendations, analysis, investigations, site meetings and site supervision.

RS 8.0 SUPPORT SERVICES

8.1 ESTIMATING AND COST PLANNING

8.1.1 Cost Specialist: (where required by project scale/scope and as outlined in the call-up).

1. Delivering projects on time and within budget is a high priority. A fully qualified cost estimating, cost planning and cost control resource(s), referred to herein as the Cost Specialist, with a demonstrated record of successful cost management on construction projects may be required. This Cost Specialist will be conversant with all aspects of construction cost estimating during the design stages including the use of Elemental Cost Analysis, Risk Analysis, Life Cycle Costing and Value Engineering/Management techniques.
2. The purpose of cost planning and cost control is to assist in the accomplishment of project cost objectives. It is a continuous and interactive process involving planning, action, measurement, evaluation and revision.

8.1.2 Scope of Services

3. The Cost Specialist shall provide an interactive and continuous cost consulting service from the commencement of project design through to construction completion and subsequent evaluation, including the preparation of complete estimates for all construction trades, escalation, inflation and contingency costs, as noted in the previous RS sections.
4. The Cost Specialist shall provide a cost advising, and cost monitoring/reporting service.
5. The Cost Specialist shall attend all relevant project and production meetings throughout the design phases and be prepared to present and defend the estimates directly to the Project Manager.

8.1.3 Cost Estimate and Planning Report

6. The Cost Specialist is to provide continuous cost monitoring, timely identification and early warning of all changes that affect or potentially affect the estimated construction costs of the project.
7. If the estimate falls short of or exceeds the Construction Cost Limit due to such changes, the Cost Specialist with the Consultant team shall fully advise the Project Manager. The Cost Specialist with the Consultant team shall propose alternative design solutions.
8. An Cost Estimate and Planning Report will include sufficient description and cost detail to clearly identify:
 - (1) Scope Change: Identifying the nature, reason and total cost impact of all identified and potential project scope changes affecting Construction Cost Estimate;
 - (2) Cost Overruns and Under runs: Identifying the nature, the reason and the total cost impact of all identified and potential cost variations;
 - (3) Options Enabling a return to the Construction Cost Estimate: Identifying the nature and potential cost effects of all identified options proposed, in order to return the project within the Construction Cost Estimate.

8.1.4 Responsibilities

PWGSC will review all aspects of the Cost Specialist's work on a continuing basis to determine the validity and completeness of the information provided. In the event areas of concern are identified, including errors and omissions as well as areas of inadequate detail or areas that require further explanation, the Cost Specialist shall re-examine the estimates provided and make such revisions as are subsequently agreed to be necessary and/or provide ample acceptable evidence that such corrections or amendments are unnecessary.

8.1.5 No Action Abrogates Consultant's Responsibilities

9.	No acceptance or approval by PWGSC, whether expressed or implied, shall be deemed to relieve the Cost Specialist, or the Consultant, of professional or technical responsibility for the estimates and cost reports.	8.4.1 Intent	1.	The intent of the provision of Resident Construction Service is to implement the project in compliance with the Construction Contract Documents and to ensure construction contractor compliance with their contract. The Consultant shall provide a Resident Construction Services Representative for the duration of the construction contract stage.
10.	Neither does acceptance of an estimate by PWGSC in any way abolish the Consultant's responsibility to maintain the specified Construction Cost Limit throughout the life of the project, or the requirement to redesign should the lowest acceptable bid differ significantly from the agreed Construction Cost Plan, unless and until the Project Manager indicates otherwise in writing.	2.	The purpose of the Resident Construction Services Representative is responsible to:	
8.2 Surveying		(1)	ensure the presence of the Consultant on site for the project;	
8.2.1. Intent		(2)	to inspect, coordinate and monitor all aspects of the work during key periods of the construction of the facility, and liaise with the contractor, Public Works And Government Services Canada and other agencies as appropriate to the work.;	
To have adequate survey control for design purposes or during construction.		(3)	to provide resident inspection during key periods of construction work and maintaining records of all construction work placed on behalf of the design engineer and Project Manager;	
8.2.2 Scope and Activities		(4)	ensure that a sufficient level of communication is maintained with the Project Manager, Consultant, Contractor and any other organization applicable to the construction and construction contract administration of the individual detachment construction contract.	
To provide survey personnel and necessary equipment to conduct all necessary surveys and survey information required for design purposes. If required, services during construction provide personnel and equipment necessary for construction contract survey purposes.		3.	Resident Construction Services Representative(s) should:	
8.2.3 Deliverables		(1)	be a registered Professional Engineer or be eligible for registration in the Province of New Brunswick or Nova Scotia or Prince Edward Island or Newfoundland and Labrador; or	
Complete survey plans consistent with design requirements to be supplied in digital format.		(2)	be a registered Certified Engineering Technologist or be eligible for registration in the province of New Brunswick or Nova Scotia or Prince Edward Island or Newfoundland and Labrador; or	
8.3 Materials Testing		(3)	be a registered Certified Engineering Technician or be eligible for registration in the province of New Brunswick or Nova Scotia or Prince Edward Island or Newfoundland and Labrador;	
8.3.1 Intent		(4)	Other combinations of education and experience will be considered considering the requirements and complexity of the service(s) required.	
To procure materials testing services during construction, including the testing of placed materials such as backfill soils and gravels.		4.	The Resident Construction Services Representative shall:	
8.3.2 Scope and Activities		(1)	be directly responsible to the Consultant;	
To provide materials testing services, equipment and personnel on an as required or as specified basis to conduct testing of materials: at source, as samples submitted by the Contractor, and as placed in-situ, to make sure that the materials and the construction and/or placement methods are in accordance with the contract drawings and specifications.		(2)	become thoroughly familiar with all pertinent documents for the construction including as a minimum the National Building Code. They shall be aware of all Federal, Provincial and Municipal standards for the health and safety of construction workers;	
8.3.3 Deliverables		(3)	become thoroughly familiar with the requirements of the Consultant Project Brief and project responsibilities of others which relate to these services;	
Materials testing reports and, if required/requested, recommendations for removal and /or remediation of non-conforming materials.		8.4.2 Scope and Activities		
8.4 RESIDENT CONSTRUCTION SERVICES		1.	General	

- | | |
|---|---|
| <p>(1) The Resident Construction Services Representative's service shall commence on the date the contractor physically mobilizes on a site and finish on the date of Certificate of Substantial Performance unless otherwise stated by the Project Manager.</p> <p>(2) The Consultant shall be responsible to distribute and assign the Construction Services Representative in such a manner that the intent of these services, as stated above is assured. The consultant shall ensure, via his planned allotment of the Construction Services Representative's time, that quality assurance is maintained and that all critical aspects of the work by the construction contractor's forces occur in the presence of the Resident Construction Services Representative.</p> <p>(3) The Consultant shall, prior to the construction contract tender of the facility provide Detail Project Schedule, identifying the key stages of construction and the planned allotment of hours when the Resident Construction Services Representative shall be on site.</p> <p>(4) The PWGSC representatives may, at their discretion, request additional amounts and/or less amounts of services of the Resident Construction Services Representative. Those additional and/or reduced services shall be calculated utilizing the hourly rate identified by the Consultant.</p> | <p>c) keep a daily log of such inspections and issue a weekly written report to the Consultant in the form directed.</p> <p>(1) The Consultant shall review and approve weekly reports prior to distribution to the Departmental Representative (Project Manager). Reports shall be distributed within five (5) working days of the reports week ending date.</p> <p>(2) The Resident Construction Services Representative shall make any other reports or surveys as may be requested by the Project Manager through the Consultant.</p> |
| <p>(3) The Consultant shall, prior to the construction contract tender of the facility provide Detail Project Schedule, identifying the key stages of construction and the planned allotment of hours when the Resident Construction Services Representative shall be on site.</p> <p>(4) The PWGSC representatives may, at their discretion, request additional amounts and/or less amounts of services of the Resident Construction Services Representative. Those additional and/or reduced services shall be calculated utilizing the hourly rate identified by the Consultant.</p> | <p>4. Interpretation of the Contract Documents</p> <p>(1) Interpretation of the contract documents shall be the responsibility of the Consultant. The Consultant may, however, have the Resident Construction Services Representative provide him with information regarding job conditions and may require him to relay day-to-day instructions to the Contractor.</p> <p>(2) It shall be the duty of the Resident Construction Services Representative to assist the Consultant and further inform the Consultant of any anticipated problems which may delay the progress of the work. The method of relaying such information shall be determined by the Consultant.</p> |
| <p>2. Duties and Responsibilities</p> <p>(1) Provide Resident Construction Services including inspection, coordination and monitoring during the construction work and be responsible to the Consultant.</p> <p>(2) Maintain daily records, while on site, of all construction work placed and ensure constant communication amongst Project Manager, the Consultant and Contractor.</p> <p>(3) The Consultant shall ensure that the Resident Construction Services Representative maintains, records and submits time sheets. The Consultant shall forward time sheets of the Resident Construction Services Representative to Project Manager after verifying accuracy and approving. The Consultant shall submit reviewed and approved time sheets to the Project Manager, within two weeks after completion of 40 hours of service by the Resident Construction Services Representative, for review.</p> | <p>5. Changes in the Work</p> <p>(1) The Resident Construction Services Representative shall not authorize or order any change in the work which will constitute a change in design or in the value of the contract except as delegated by the Project Manager.</p> <p>(2) The Consultant may call upon the Resident Construction Services Representative to assist in the evaluation of changes in the work, where a knowledge of job conditions is required.</p> |
| <p>3. Inspection and Reporting</p> <p>(1) The Resident Construction Services Representative shall:</p> <p>b) inspect all phases of the work in progress, for the purpose of bringing to the attention of the Contractor, after checking with the Consultant, and Project Manager any discrepancies between the work, the contract documents and accepted construction procedures;</p> | <p>6. Communication and Liaison</p> <p>The Resident Construction Services Representative shall:</p> <p>(1) Convey the Consultant's instructions regarding the required standards of workmanship to the Contractor(s);</p> <p>(2) Check specifications, confer and obtain guidance on these findings with the Consultant. The matter is then to be brought to the attention of the Contractor's Superintendent. Although informal discussions with Sub-trade Superintendents are usually permissible, (but only with the agreement of the Contractor), the Resident Construction Services Representative should not deal directly with foreman or tradesmen, or interfere with the progress of the work;</p> <p>(3) Communicate formally with the Contractor via memorandum form only. When this form is issued the Resident Construction Services</p> |

Representative must immediately file copies with PWGSC and the Consultant;		8. Site Meetings
(4) Contact the Consultant immediately when it is apparent that information or action is required of the Consultant, e.g. general instructions, clarifications, sample of shop drawing approvals, requisitions, contemplated change orders, site instructions, details, drawings, etc.;		The Resident Construction Services Representative shall attend and participate in all job-site meetings held during key periods of construction.
(5) Accompany PWGSC representatives on inspections and report to the Consultant requirements, comments or instructions of PWGSC's forces. Note that the Resident Construction Services Representative should encourage such requirements, comments or instructions to be provided to him in writing;		<p>9. Inspection and Testing</p> <p>(1) The Resident Construction Services Representative must see that the tests and inspections required by the contract documents are conducted, and should observe these tests and report the results in the daily log.</p> <p>(2) The Consultant should be notified if the test results do not meet the specified requirements, or if the Contractor does not have tests undertaken as required.</p>
(6) Consider and evaluate any suggestions or modifications to the documents advanced by the Contractor and immediately report these to the Consultant with comments;		<p>10. Emergencies</p> <p>(1) In the case of emergency where safety of persons or property is concerned or work is endangered, to safeguard the interests of PWGSC, the Resident Construction Representative shall give immediate written notice and verbal contact to PWGSC of the possible hazard.</p>
(7) Ensure that PWGSC and the Consultant are notified promptly when key pieces and/or components of materials and equipment are delivered, so that these parties can arrange for the appropriate personnel to have an opportunity to inspect same prior to installation.		<p>11. Limitations</p> <p>The Resident Construction Services Representative shall not:</p> <p>(1) Authorize deviations from the contract documents;</p> <p>(2) Approve shop drawings or samples unless requested by project manager for project use;</p> <p>(3) Accept any work or portions of the build works;</p> <p>(4) Enter into the area of responsibility of the Contractor.</p>
(8) Inspection of the Work		
(1) The Resident Construction Services Representative shall make on site observations and spot checks of the work to determine whether the work, materials and equipment conform with the contract documents and supplementary conditions. The Resident Construction Services Representative shall advise the Contractor of any deficiencies or unapproved deviations via memorandum and report immediately to the Consultant and Project Manager any of these on which the Contractor is tardy or refuses to correct.		<p>12. Hazardous Construction Operations</p> <p>The Resident Construction Services Representative is to communicate regularly with the Construction Safety Professional regarding any issues of site safety. All safety related issues must be forwarded immediately to the Safety Professional, as well as the Project Manager.</p>
(2) The Resident Construction Services Representative shall arrange for the Consultant's architectural, structural, mechanical, electrical and other consultants to make the periodic inspections required by the Consultant's contract, and for these inspections to be made timely with respect to the progress of the work.		
(3) The Resident Construction Services Representative shall also report if materials and equipment are being incorporated into the project prior to approval of relative shop drawings or samples.		<p>13. Equipment Required and Provided by Consultant</p> <p>(1) Costs of all equipment required shall be covered in the quoted fixed hourly rate. Equipment required shall include as a minimum:</p> <p>b) Digital Camera;</p> <p>c) Personal Protective Equipment;</p> <p>d) Office Supplies required to perform services;</p> <p>e) Cell Phone or other acceptable means of communication;</p> <p>f) Laptop computer.</p>
(4) The Resident Construction Services Representative shall assist in the preparation of all deficiency reports, interim, preliminary, and final, in collaboration with the PWGSC and Consultant's representatives.		
(5) The Resident Construction Services Representative shall be responsible for the measurement of all work to be done by the Contractor		<p>(1) Provision of a site trailer and cover costs associated with same, including: fax machine and furniture will be supplied by construction Contractor.</p>

8.4.3 Deliverables

1. **(1) Daily Log**
The Resident Construction Services Representative shall keep a daily log while on site. This will record the following:
 - b) weather conditions, particularly unusual weather relative to construction activities in progress;
 - c) major material and equipment deliveries;
 - d) daily activities and major work done;
 - e) number of workers on site (full day or part day) and trade represented;
 - f) start, stop or completion of activities;
 - g) presence of inspection and testing firms, tests taken, results, etc.;
 - h) unusual site conditions experienced;
 - i) significant developments, remarks, etc.;
 - j) special visitors on site;
 - k) authorities given Contractor to undertake certain or hazardous works;
 - l) Environmental, Safety or other notable incidents;
 - m) reports, instructions from Appropriate Authorities Response Actions.
2. **(1) Weekly Records**
The Resident Construction Services Representative shall prepare weekly reports for the Consultant in the form directed:
 - b) progress relative to schedule;
 - c) major activities commencing or completed during the week; main activities now in progress;
 - d) major deliveries of materials and/or equipment;
 - e) difficulties which may cause delays in completion;
 - f) materials and labour needed immediately;
 - g) cost estimates of work completed and materials delivered (cost plus contracts);
 - h) outstanding information or action required by Consultant or PWGSC;
 - i) work force;
 - j) weather;
 - k) remarks;
 - l) accidents on site;
 - m) safety hazards caused by the work, the Contractor or his agents.
3. **(1) Site Records**
The Resident Construction Services Representative shall maintain up to date files at the site for the use as follows:
 - b) Contract and Tender Documents;
 - c) Approved Shop Drawings;
 - d) Approved Samples;
 - e) Samples;
 - f) Site Instructions;
 - g) Contemplated Change Orders;
 - h) Change Orders;
 - i) Memoranda;
 - j) Test and Deficiency Reports;
 - k) Correspondence and Minutes of Meeting;
 - l) Names, addresses, telephone numbers of Client representatives, Consultant and all Contractors, sub-trades key personnel associated with the contract including home telephone numbers in case of emergencies.
3. **(1) The items may be expanded or reduced based on site/ project specific conditions.**
 - (2) In addition, the Resident Construction Services Representative shall maintain an up to date progress schedule.
- A reproduction of the original contract drawings shall be carefully preserved and shall be kept marked up to date with all addenda, change orders, site instructions, details, as-built conditions, etc., issued subsequent to the award of the contract.
- (1) The items may be expanded or reduced based on site/ project specific conditions.

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E0225-141687
Client Ref. No. - N° de réf. du client
20141687

Amd. No. - N° de la modif.
File No. - N° du dossier
PWA-3-70078

Buyer ID - Id de l'acheteur
pwa115
CCC No./N° CCC - FMS No./N° VME

ANNEX B ROTATIONAL LISTS

This Annex provides an example of the rotational list which would show the qualified Suppliers for each Specialty Service by Geographical Region. The order of the suppliers presented will be used in Part 6B, Selection Process when determining invited suppliers on a rotational basis. The order of the suppliers will be randomly generated. There is no limit to the number of suppliers on the list for each specialty / geographic area.

The number of names selected is based on the selection process detailed in Part 6B. The name at the top of the list would be selected first. If a supplier is selected they move to the bottom of the list even if they choose to not participate in the RFP or they do not receive a contract as a result of a RFP process.

Suppliers may be added to the list after the annual refresh. New suppliers would be added to bottom of the list and the selection process would continue as per Part 6B.

	Geographic Region				Newfoundland and Labrador
	Nova Scotia	New Brunswick	Prince Edward Island		
1 Municipal Engineering	1	1	1	1	1
	2	2	2	2	2
2 Water and Wastewater Treatment					
	1	1	1	1	1
	2	2	2	2	2
3 Structural Engineering					
	1	1	1	1	1
	2	2	2	2	2
4 Bridge Engineering					
	1	1	1	1	1
	2	2	2	2	2
5 Marine Engineering					
	1	1	1	1	1
	2	2	2	2	2
6 Coastal Engineering					
	1	1	1	1	1
	2	2	2	2	2
7 Transportation Engineering					
	1	1	1	1	1
	2	2	2	2	2
8 Traffic Engineering					
	1	1	1	1	1
	2	2	2	2	2
9 Geotechnical Engineering					
	1	1	1	1	1
	2	2	2	2	2

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ANNEX C DOING BUSINESS

Doing Business with PWGSC, Documentation and Deliverables Manual as follows forms part of this document.



Serving
GOVERNMENT,
Serving
CANADIANS.

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 General

1.1 Effective Date

January 12, 2017

1.2 Authority

This manual is issued by the authority of the Director General, Technical Services, Real Property Branch (RPB), 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 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 [PWGSC 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 *PWGSC 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
TOTAL ESTIMATED AMOUNT						

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 the elemental analysis format, which is in accordance with the latest edition issued by the Canadian Institute of Quantity Surveyors (CIQS) for all PWGSC regions excluding Quebec. Within Quebec region the cost estimates shall be prepared in the Unifomat II format.

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 analysis for Class B, C, and D; and
- itemized breakdown of costs estimate in both elemental analysis 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 analysis 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 analysis 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 analysis 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

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

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

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

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

Specifications			
Item	Verified by	Explanations	Action by
7c Non-restrictive, non-trade name “prescription” or “performance” specifications are used throughout.			
7d The term “Acceptable Manufacturers” is not used.			
7e No sole sourcing has been used.			
7f 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.			
8 Measurement for Payment			
8a Unit prices are used only for work that is difficult to estimate.			
9 Cash Allowances			
9a No cash allowances have been used or if they have, approval from the Departmental Representative has been received.			
10 Miscellaneous Requirements			
10a No paragraphs noted as “Scope of Work” are included.			
10b In Part 1 - General of any section, the paragraphs “Summary” and “Section Includes” are not used.			
11 Specification Coordination			
11a The list of related sections and appendices are coordinated.			
12 Health and Safety			
12a Section 01 35 29.06 – Health and Safety Requirements is included.			
13 Subsurface Investigation Reports			
13a Subsurface investigation reports are included after Section 31.			
14 Prequalifications			
14a 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.			

Specifications			
Item	Verified by	Explanations	Action by
15 Contracting Issues			
15a Contracting issues do not appear in the specifications.			
15b Division 00 of the NMS is not used except 00 01 07 (Seals Page) and 00 01 10 (Table of Contents).			
16 Quality Assurance			
16a There are no specification clauses with square brackets “[]” or lines “—” indicating that the document is incomplete or missing information.			
17 Signing and Sealing			
17a 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 InstructionsXX
	01 14 25 – Designated Substances ReportXX
	01 35 30 – Health and SafetyXX
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 1st 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 2nd Tier Subfolder

The 2nd 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 3rd Tier Subfolder

The 3rd 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 4th 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 4th 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 4th 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 4th-Tier Subfolders for Specifications

The “Specifications” and “Devis” folders must have 4th 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 4th 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 – Électricité
      08 – Structural - Structural
      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