

**RETURN BIDS TO:  
RETOURNER LES SOUMISSIONS À :**

[annette.damour@tc.gc.ca](mailto:annette.damour@tc.gc.ca)

**REQUEST FOR PROPOSAL  
DEMANDE DE PROPOSITION**

Comments – Commentaires

**Proposal To: Transport Canada**

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

On behalf of the bidder, by signing below, I confirm that I have read the entire bid solicitation including the documents incorporated by reference into the bid solicitation and I certify that:

1. The bidder considers itself and its products able to meet all the mandatory requirements described in the bid solicitation;
2. This bid is valid for the period requested in the bid solicitation;
3. All the information provided in the bid is complete, true and accurate; and
4. If the bidder is awarded a contract, it will accept all the terms and conditions Set out in the resulting contract clauses included in the bid solicitation.

**Proposition à : Transports Canada**

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

En apposant ma signature ci-après, j'atteste, au nom du soumissionnaire, que j'ai lu la demande de propositions (DP) en entier, y compris les documents incorporés par renvoi dans la DP et que :

1. le soumissionnaire considère qu'il a les compétences et que ses produits sont en mesure de satisfaire les exigences obligatoires décrites dans la demande de soumissions;
2. cette soumission est valide pour la période exigée dans la demande de soumissions ;
3. tous les renseignements figurant dans la soumission sont complets, véridiques et exacts; et
4. si un contrat est attribué au soumissionnaire, ce dernier se conformera à toutes les modalités énoncées dans les clauses concernant le contrat subséquent et comprises dans la demande de soumissions.

<b>Title – Sujet</b>	
Next Generation Positioning, Navigation and Timing Infrastructure Requirements for Automation in the Transportation System: An Overview	
<b>Solicitation No. – N° de l'invitation</b>	<b>Date</b>
T8080-200288	06-NOV-2020
<b>Client Reference No. – N° référence du client</b>	
T8080-200288	
<b>GETS Reference No. – N° de référence de SEAG</b>	
<b>Solicitation Closes L'invitation prend fin</b>	<b>Time Zone Fuseau horaire</b>
<b>at – à</b> 02 :00 PM – 14h00	Eastern Daylight Time (EDT)
<b>on – le</b> 07-DEC-2020	Heure avancée de l'est (HAE)
<b>F.O.B. - F.A.B.</b>	
<b>Plant-Usine:</b> <input type="checkbox"/>	<b>Destination:</b> <input checked="" type="checkbox"/> <b>Other-Autre:</b> <input type="checkbox"/>
<b>Address inquiries to – Adresser toute demande de renseignements à :</b>	
<b>Annette D'Amour</b>	
<b>Area code and Telephone No. Code régional et N° de téléphone</b>	<b>Facsimile No. / e-mail N° de télécopieur / courriel</b>
506-377-2041	<a href="mailto:annette.damour@tc.gc.ca">annette.damour@tc.gc.ca</a>
<b>Destination – of Goods, Services, and Construction: Destination – des biens, services et construction</b>	
National Capital Region	

**Instructions:** See Herein

**Instructions :** Voir aux présentes

<b>Delivery required -Livraison exigée</b>	<b>Delivery offered -Livraison proposée</b>
See Herein – Voir aux présentes	
<b>Jurisdiction of Contract:</b> Province in Canada the bidder wishes to be the legal jurisdiction applicable to any resulting contract (if other than as specified in solicitation)	
<b>Compétence du contrat :</b> Province du Canada choisie par le soumissionnaire et qui aura les compétences sur tout contrat subséquent (si différente de celle précisée dans la demande)	
<b>Vendor/firm Name and Address Raison sociale et adresse du fournisseur/de l'entrepreneur</b>	
<b>Telephone No. - N° de téléphone</b>	
<b>e-mail - courriel</b>	
<b>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)</b>	
<b>Signature</b>	<b>Date</b>

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## **PART 1 - GENERAL INFORMATION**

### **1.1 Security Requirements**

There are no security requirements for this project. Should the Contractor's resources require on site access to government facilities they will be escorted at all times.

### **1.2 Statement of Work**

Transport Canada is seeking a contractor to undertake an analysis of Positioning, Navigation and Timing (PNT) infrastructure requirements required to enable next generation automated transportation systems. The project will consist of the development of:

- A working group with key federal stakeholders to map out a recommended federal strategy to support the Global Navigation Satellite System (GNSS) based positioning requirements of next generation transportation systems.
- A comprehensive scan and summary of the Canadian & global landscape as it relates to augmented GNSS, with a key focus on appended service providers.
- A scan and summary of PNT product development plans from Canadian service providers involving primary and secondary research from key international stakeholders (i.e. direct consultations & document reviews)
- A 1-day workshop to share and discuss the findings, alongside a recommendations report.

### **1.3 Debriefings**

Bidders may request a debriefing on the results of the bid solicitation process. Bidders should make the request to the Contracting Authority within 15 working days from receipt of the results of the bid solicitation process. The debriefing may be in writing, by telephone or in person.

## **PART 2 - BIDDER INSTRUCTIONS**

### **2.1 Standard Instructions, Clauses and Conditions**

All instructions, clauses and conditions identified in the bid solicitation 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.

Bidders who submit a bid agree to be bound by the instructions, clauses and conditions of the bid solicitation and accept the clauses and conditions of the resulting contract.

The [2003](#) (2020-05-28) Standard Instructions - Goods or Services - Competitive Requirements, are incorporated by reference into and form part of the bid solicitation.

Subsection 5.4 of [2003](#), Standard Instructions - Goods or Services - Competitive Requirements, is amended as follows:

Delete: 60 days  
Insert: 120 days

### 2.1.1 SACC Manual Clauses

SACC Reference	Section	Date
C9000T	Pricing	2010/08/16

### 2.2 Submission of Bids

Bids must be received by the Contract Authority by the date and time indicated on page 1 of the solicitation. Bids must be sent by Electronic Submission to [annette.damour@tc.gc.ca](mailto:annette.damour@tc.gc.ca).

Refer to Part 3, Section 3.1.1 "Electronic Submission".

### 2.3 Former Public Servant

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

#### Definitions

For the purposes of this clause, "former public servant" is any former member of a department as defined in the [Financial Administration Act](#), R.S., 1985, c. F-11, a former member of the Canadian Armed Forces or a former member of the Royal Canadian Mounted Police. A former public servant may be:

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

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

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

#### Former Public Servant in Receipt of a Pension

As per the above definitions, is the Bidder a FPS in receipt of a pension? **Yes ( ) No ( )**

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

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

By providing this information, Bidders agree that the successful Bidder's status, with respect to being a former public servant in receipt of a pension, will be reported on departmental websites as part of the published proactive disclosure reports in accordance with [Contracting Policy Notice: 2019-01](#) and the [Guidelines on the Proactive Disclosure of Contracts](#).

### **Work Force Adjustment Directive**

Is the Bidder a FPS who received a lump sum payment pursuant to the terms of the Work Force Adjustment Directive? **Yes** ( ) **No** ( )

If so, the Bidder must provide the following information:

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

### **2.4 Enquiries - Bid Solicitation**

All enquiries must be submitted in writing to the Contracting Authority no later than seven (7) calendar days before the bid closing date. Enquiries received after that time may not be answered.

Bidders should reference as accurately as possible the numbered item of the bid solicitation to which the enquiry relates. Care should be taken by Bidders 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 the Bidder do so, so that the proprietary nature of the question(s) is eliminated, and the enquiry can be answered to all Bidders. Enquiries not submitted in a form that can be distributed to all Bidders may not be answered by Canada.

### **2.5 Applicable Laws**

Any resulting contract must be interpreted and governed, and the relations between the parties determined, by the laws in force in Ontario.

Bidders may, at their discretion, substitute the applicable laws of a Canadian province or territory of their choice without affecting the validity of their bid, 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 Bidders.

## 2.6 Basis for Canada's Ownership of Intellectual Property

The Department of Transport has determined that any intellectual property rights arising from the performance of the Work under the resulting contract will belong to Canada, for the following reasons, as set out in the [Policy on Title to Intellectual Property Arising Under Crown Procurement Contracts](#):

- The main purpose of the Contract, or of the deliverables contracted for, is to generate knowledge and information for public dissemination.

## 2.7 Bid Challenge and Recourse Mechanisms

- (a) Several mechanisms are available to potential suppliers to challenge aspects of the procurement process up to and including contract award.
- (b) Canada encourages suppliers to first bring their concerns to the attention of the Contracting Authority. Canada's [Buy and Sell](#) website, under the heading "[Bid Challenge and Recourse Mechanisms](#)" contains information on potential complaint bodies such as:
  - Office of the Procurement Ombudsman (OPO)
  - Canadian International Trade Tribunal (CITT)
- (c) Suppliers should note that there are **strict deadlines** for filing complaints, and the time periods vary depending on the complaint body in question. Suppliers should therefore act quickly when they want to challenge any aspect of the procurement process.

## PART 3 - BID PREPARATION INSTRUCTIONS

### 3.1 Bid Preparation Instructions

The bid must be gathered per section and separated as follows:

- Section I: Technical Bid** (one (1) electronic copy)
- Section II: Financial Bid** (one (1) electronic copy)
- Section III: Certifications** (one (1) electronic copy)

Prices must appear in the financial bid only. No prices must be indicated in any other section of the bid.

Interested Bidders are invited to submit a proposal, through Electronic Submissions at:  
[annette.damour@tc.gc.ca](mailto:annette.damour@tc.gc.ca).

Individual e-mails exceeding five megabytes (5MB), or that include other factors such as embedded macros and/or links may be rejected by the TC e-mail system and/or firewall(s) without notice to the Bidder or Contracting Authority.

Larger bids may be submitted through more than one e-mail. The Contracting Authority will confirm receipt of documents. It is the Bidder's responsibility to ensure that the Contracting Authority has received the entire submission.

## **Section I: Technical Bid**

In their technical bid, Bidders should explain and demonstrate how they propose to meet the requirements and how they will carry out the Work.

## **Section II: Financial Bid**

Bidders must submit their financial bid in accordance with the Basis of Payment.

### **3.1.1 Electronic Payment of Invoices – Bid**

If you are willing to accept payment of invoices by Electronic Payment Instruments, complete Annex “D” Electronic Payment Instruments.

If Annex “D” Electronic Payment Instruments is not completed, it will be considered as if Electronic Payment Instruments are not being accepted for payment of invoices.

Acceptance of Electronic Payment Instruments will not be considered as an evaluation criterion.

### **3.1.2 Exchange Rate Fluctuation**

C3011T (2013-11-06), Exchange Rate Fluctuation, is incorporated by reference into and form part of the bid solicitation.

### **3.1.3 SACC Manual Clauses**

## **Section III: Certifications**

Bidders must submit the certifications and additional information required under Part 5.

## **PART 4 - EVALUATION PROCEDURES AND BASIS OF SELECTION**

### **4.1 Evaluation Procedures**

- (a) Bids will be assessed in accordance with the entire requirement of the bid solicitation including the technical and financial evaluation criteria.
- (b) An evaluation team composed of representatives of Canada will evaluate the bids

#### **4.1.1 Technical Evaluation**

##### **4.1.1.1 Mandatory Technical Criteria**

Mandatory Technical Criteria as specified in Annex “C”

##### **4.1.1.2 Point Rated Technical Criteria**

Point Rated Technical Criteria as specified in Annex “C”

#### **4.1.2 Financial Evaluation**

The price of the bid will be evaluated in Canadian dollars, Applicable Taxes excluded, FOB destination, Canadian customs duties and excise taxes included.

## 4.2 Basis of Selection

### 4.2.1 Basis of Selection – Highest Combined Rating of Technical Merit (70%) and price (30%)

4.2.1.1 To be declared responsive, a bid must:

- (a) comply with all the requirements of the bid solicitation;
- (b) meet all mandatory criteria specified; and,
- (c) obtain the required minimum of 65 points overall for the technical evaluation criteria which are subject to point rating.

The rating is performed on a scale of 100 points.

4.2.1.2 Bids not meeting either (a), (b) or (c) above will be declared non-responsive.

4.2.1.3 The selection will be based on the highest responsive combined rating of technical merit and price. The ratio will be 70% for the technical merit and 30% for the price.

4.2.1.4 To establish the technical merit score, the overall technical score for each responsive bid will be determined as follows: total number of points obtained / maximum number of points available multiplied by the ratio of 70%.

4.2.1.5 To establish the pricing score, each responsive bid will be prorated against the lowest evaluated price and the ratio of 30%.

4.2.1.6 For each responsive bid, the technical merit score and the pricing score will be added to determine its combined rating.

4.2.1.7 Neither the responsive bid obtaining the highest technical score nor the one with the lowest evaluated price will necessarily be accepted. The responsive bid with the highest combined rating of technical merit and price will be recommended for award of a contract.

The table below illustrates an example where the selection of the contractor is determined by a 70/30 ratio of the technical merit and price, respectively.

<b>Basis of Selection - Highest Combined Rating of Technical Merit (70%) and Price (30%)</b>			
<b>Bidder</b>	<b>Bidder 1</b>	<b>Bidder 2</b>	<b>Bidder 3</b>
<b>Overall Technical Score</b>	88	82	92
<b>Bid Evaluated Price</b>	C\$60,000	C\$55,000	C\$50,000
<b>Calculations</b>	<b>Technical Merit Points</b>	<b>Price Points</b>	<b>Total Score</b>
<b>Bidder 1</b>	$88 / 100 \times 70 = 61.6$	$50,000 / 60,000 \times 30 = 25$	86.6
<b>Bidder 2</b>	$82 / 100 \times 70 = 57.4$	$50,000^* / 55,000 \times 30 = 27.3$	84.7
<b>Bidder 3</b>	$92 / 100 \times 70 = 64.4$	$50,000^* / 50,000 \times 30 = 30$	94.4

\* represents the lowest evaluated price



## **PART 5 – CERTIFICATIONS AND ADDITIONAL INFORMATION**

Bidders must provide the required certifications and additional information to be awarded a contract.

The certifications provided by Bidders to Canada are subject to verification by Canada at all times. Unless specified otherwise, Canada will declare a bid non-responsive, or will declare a contractor in default if any certification made by the Bidder is found to be untrue whether made knowingly or unknowingly, during the bid evaluation period or during the contract period.

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

### **5.1 Certifications Required with the Bid**

Bidders must submit the following duly completed certifications as part of their bid.

#### **5.1.1 Integrity Provisions - Declaration of Convicted Offences**

In accordance with the Integrity Provisions of the Standard Instructions, all bidders must provide with their bid, **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 Contract Award and Additional Information**

The certifications and additional information listed below should be submitted with the bid, but may be submitted afterwards. If any of these required certifications or additional information is not completed and submitted as requested, the Contracting Authority will inform the Bidder 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 bid 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 property 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 Bidder must provide the required documentation, as applicable, to be given further consideration in the procurement process.

#### **5.2.2 Federal Contractors Program for Employment Equity - Bid Certification**

By submitting a bid, the Bidder certifies that the Bidder, and any of the Bidder's members if the Bidder is a Joint Venture, is not named on the Federal Contractors Program (FCP) for employment equity "FCP Limited Eligibility to Bid" list available at the bottom of the page of the [Employment and Social Development Canada \(ESDC\) - Labour's](https://www.canada.ca/en/employment-social-development/programs/employment-equity/federal-contractor-program.html#) website (<https://www.canada.ca/en/employment-social-development/programs/employment-equity/federal-contractor-program.html#>).

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

### **5.2.3 Additional Certifications Precedent to Contract Award**

#### **5.2.3.1 Status and Availability of Resources**

SACC Manual clause [A3005T](#) (2010-08-16), Status and Availability of Resources.

#### **5.2.3.2 Education and Experience**

SACC Manual clause [A3010T](#) (2010-08-16), Education and Experience.

## **PART 6 - RESULTING CONTRACT CLAUSES**

### **6.1 Security Requirements**

**6.1.1** There is no security requirement applicable to the Contract.

### **6.2 Statement of Work**

The Contractor must perform the Work in accordance with the Statement of Work at Annex "A".

### **6.3 Standard Clauses and Conditions**

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

#### **6.3.1 General Conditions**

[2010B](#) (2020/05/28), General Conditions - Professional Services (Medium Complexity) apply to and form part of the Contract.

#### **6.3.2 Supplemental General Conditions**

[4007](#) (2010-08-16), Supplemental General Conditions, Canada to Own Intellectual Property Rights in Foreground Information, apply to and form part of the Contract.

### **6.4 Term of Contract**

#### **6.4.1 Period of the Contract**

The period of the Contract is from date of Contract award to December 31, 2021.

### **6.5 Authorities**

#### **6.5.1 Contracting Authority**

The Contracting Authority for the Contract is:

Annette D'Amour  
Procurement Specialist  
Transport Canada  
Material and Contracting Services

Telephone: 506-377-2041  
E-mail: [annette.damour@tc.gc.ca](mailto:annette.damour@tc.gc.ca)

The Contracting Authority is responsible for the management of the Contract and any changes to the Contract must be authorized in writing by the Contracting Authority. The Contractor must not perform work in excess of or outside the scope of the Contract based on verbal or written requests or instructions from anybody other than the Contracting Authority.

### 6.5.2 Project Authority

The Project Authority for the Contract is: (to be provided upon contract award)

Name: \_\_\_\_\_  
Title: \_\_\_\_\_  
Organization: \_\_\_\_\_  
Address: \_\_\_\_\_

Telephone: \_\_\_\_\_  
Facsimile: \_\_\_\_\_  
E-mail address: \_\_\_\_\_

The Project Authority is the representative of the department or agency for whom the Work is being carried out under the Contract and is responsible for all matters concerning the technical content of the Work under the Contract. Technical matters may be discussed with the Project Authority, however the Project Authority has no authority to authorize changes to the scope of the Work. Changes to the scope of the Work can only be made through a contract amendment issued by the Contracting Authority.

### 6.5.3 Contractor's Representative (TBD)

Name: \_\_\_\_\_  
Title: \_\_\_\_\_  
Organization: \_\_\_\_\_  
Address: \_\_\_\_\_  
Telephone: \_\_\_\_\_  
E-mail address: \_\_\_\_\_

## 6.6 Proactive Disclosure of Contracts with Former Public Servants

By providing information on its status, with respect to being a former public servant in receipt of a Public Service Superannuation Act (PSSA) pension, the Contractor has agreed that this information will be reported on departmental websites as part of the published proactive disclosure reports, in accordance with Contracting Policy Notice: 2019-01 of the Treasury Board Secretariat of Canada.

## 6.7 Payment

### 6.7.1 Basis of Payment - Limitation of Expenditure

1. Canada's total liability to the Contractor under the Contract must not exceed \$ \_\_\_\_\_. (to be provided at contract award) Customs duties are included and Applicable Taxes are extra.
2. No increase in the total liability of Canada or in the price of the Work resulting from any design changes, modifications or interpretations of the Work, will be authorized or paid to the Contractor unless these design changes, modifications or interpretations have been approved, in writing, by the Contracting Authority before their incorporation into the Work. The Contractor must not perform any work or provide any service that would result in Canada's total liability being exceeded before

obtaining the written approval of the Contracting Authority. The Contractor must notify the Contracting Authority in writing as to the adequacy of this sum:

- a. when it is 75% committed, or
  - b. four months before the contract expiry date, or
  - c. as soon as the Contractor considers that the contract funds provided are inadequate for the completion of the Work,  
whichever comes first.
3. If the notification is for inadequate contract funds, the Contractor must provide to the Contracting Authority a written estimate for the additional funds required. Provision of such information by the Contractor does not increase Canada's liability.

### **6.7.3 Method of Payment – Milestone Payment**

For the Work described in the Statement of Work in Annex "A", Canada will make milestone payments in accordance with the Schedule of Milestones detailed in the Contract and the payment provisions of the Contract as follows:

- a. following receipt of an accurate and complete claim for payment using Contractor's invoice and any other document required by the Contract, submitted in accordance with the payment provisions of the Contract, and containing the description and value of the Milestone claimed, and
- b. following completion and acceptance of the corresponding deliverable, to the satisfaction of the Technical Authority.

### **6.7.4 SACC Manual Clauses**

<b>SACC Reference</b>	<b>Section</b>	<b>Date</b>
A9117C	T1204 - Direct Request by Customer Department	2007/11/30
C0100C	Discretionary Audit - Commercial Goods and/or Services	2010/01/11
H1001C	Multiple Payments	2008/05/12

### **6.7.5 Electronic Payment of Invoices – Contract**

The Contractor accepts to be paid using any of the following Electronic Payment Instrument(s):

- a. Direct Deposit (Domestic and International);

### **6.8 Invoicing Instructions**

For the work detailed under this contract, Canada will make milestone payments in accordance with the Milestone Payment Schedule, and the payment provisions of the Contract:

- a. following receipt of an accurate and complete claim for payment using Contractor's invoice and any other document required by the Contract, submitted in accordance with the payment provisions of the Contract, and containing the description and value of the Milestone claimed, and
- b. following completion and acceptance of the corresponding deliverable, to the satisfaction of the Technical Authority.

## **6.9 Certifications and Additional Information**

### **6.9.1 Compliance**

Unless specified otherwise, the continuous compliance with the certifications provided by the Contractor in its bid or precedent to contract award, and the ongoing cooperation in providing additional information are conditions of the Contract and failure to comply will constitute the Contractor in default. Certifications are subject to verification by Canada during the entire period of the Contract.

### **6.10 Applicable Laws**

The Contract must be interpreted and governed, and the relations between the parties determined, by the laws in force in Ontario.

### **6.11 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 Agreement;
- (b) the supplemental general conditions [4007](#) (2010-08-16), Canada to Own Intellectual Property Rights in Foreground Information;
- (c) the general conditions [2010B](#) (2020-05-28), Professional Services (medium complexity)
- (d) Annex A, Statement of Work;
- (e) Annex B, Basis of Payment
- (e) The Contractor's bid dated \_\_\_\_\_

### **6.12 SACC Manual Clauses**

SACC Manual clause [G1005C](#) (2016-01-28) Insurance - No Specific Requirement

### **6.13 Dispute Resolution**

- (a) The parties agree to maintain open and honest communication about the Work throughout and after the performance of the contract.
- (b) The parties agree to consult and co-operate with each other in the furtherance of the contract and promptly notify the other party or parties and attempt to resolve problems or differences that may arise.
- (c) If the parties cannot resolve a dispute through consultation and cooperation, the parties agree to consult a neutral third party offering alternative dispute resolution services to attempt to address the dispute.
- (d) Options of alternative dispute resolution services can be found on Canada's Buy and Sell website under the heading "[Dispute Resolution](#)".

## ANNEX "A" - STATEMENT OF WORK

### Next Generation Positioning, Navigation and Timing Infrastructure Requirements for Automation in the Transportation System: An Overview

#### 1. BACKGROUND

Transport Canada (TC), through its Innovation Centre, undertakes testing and evaluation of current and emerging advanced transportation technologies to help inform the development of guidance, regulations, codes and standards for the next generation of transportation technologies. Results help ensure that new innovations can be introduced in Canada in a safe and timely manner.

Positioning, Navigation and Timing (PNT) technologies are critical to the modern global transportation system – which relies on highly-accurate and reliable positioning, navigation and timing information. It is undeniable that technological advances and wide-scale availability of PNT/GPS technology over the past several decades have enabled significant innovation that have improved the safety, efficiency and reliability of all modes of transportation. Moving forward, advances in PNT technology will help enable another transformational-shift in transportation – towards greater automation.

The Innovation Centre is supporting the department's efforts to support the integration of these technologies into the Canadian transportation system by conducting research, studies and stakeholder workshops to better understand and characterize how PNT can enable higher levels of automation across the various modes of transportation.

On March 31st, 2019 a report was received on an environmental scan of PNT/GNSS related development related to autonomous vehicles. This report was prepared by Professor Sunil Bisnath, Ph.D., of York University's Geomatics Program within the Earth and Space Science and Engineering Department. The report was issued in partnership with Natural Resources Canada (NRCan) as a scan in the context of Global Navigation Satellite Systems (GNSS). The report focused on contemporary examples of regulatory frameworks (municipal, provincial, federal), the key sensors being used, test facilities, and GNSS augmentation infrastructure requirements.

On June 25th, 2019 Transport Canada's Innovation Centre, in collaboration with NRCan, the Canadian Standards Association (CSA), and the Ontario Centres of Excellence (OCE) - Autonomous Vehicle Innovation Network (AVIN), hosted a one-day workshop in the OCE's Offices (GTA), with key PNT and CAV stakeholders to discuss:

- PNT infrastructure requirements needed to enable CAV deployments.
- Codes or standards gaps that need to be addressed
- the readiness of Canada's PNT ecosystem to support higher levels of CAV deployments.
- PNT interoperability requirements -- domestically, continentally and globally.

Forty-seven participants from Transport Canada, City of Toronto, University of Toronto, Royal Military College Canada, Queens University, Tallysman, Trimble/Applanix, General Motors, University of New Brunswick, The CSA Group, York University, AutonomouStuff, NovAtel/Hexagon PI, the Canadian PNT Board, and many more were in attendance. Workshop outcomes were summarized in a report by Dr. Sunil Bisnath.

A key finding of the workshop and report was the need to analyze Canada's PNT infrastructure and its readiness to enable automation. Although there are some companies offering high precision, real-time GNSS positioning services in Canada, none offer comprehensive, coast-to-coast-to-coast positioning with high accuracy.

This study will help to inform decision makers about which direction Canada should take to enhance existing Canadian PNT infrastructure. This is especially of concern for northern Canada where ground correction stations are sparse, and satellites have a weaker geometry. Research outcomes could gauge performance levels of current solutions/assets, and the magnitude of investment required to improve those assets in enabling higher levels of automation.

## 1.2 Project Overview

Transport Canada is seeking a contractor to undertake an analysis of PNT infrastructure requirements required to enable next generation automated transportation systems. The project will consist of the development of;

- A working group with key federal stakeholders to map out a recommended federal strategy to support the GNSS based positioning requirements of next generation transportation systems.
- A comprehensive scan and summary of the Canadian & global landscape as it relates to augmented GNSS, with a key focus on appended service providers in section 3.
- A scan and summary of PNT product development plans from Canadian service providers involving primary and secondary research from key international stakeholders (i.e. direct consultations & document reviews)
- A 1-day workshop to share and discuss the findings, alongside a recommendations report.

## 1.3 Key Terminology

TC: Transport Canada  
PNTB: Position Navigation Timing Board  
CGS: Canadian Geodetic Survey  
GNSS: Global Navigation Satellite System  
GoC: Government of Canada  
GPS: Global Positioning System  
RFP: Request for Proposal  
OSR: Observation Space Representation  
PNT: Positioning, Navigation and Timing  
PPP: Precise Point Positioning  
RTK: Real-time Kinematic  
SSR: State Space Representation

## 1.4 Technology Background

From the Canadian Geodesic Survey (CGS) division of NRCan; GNSS systems like GPS not only provide position information, but also enable important navigation and timing functionality. Consequently, GNSS/GPS data are often referred to as Positioning, Navigation and Timing (PNT) data. PNT data are a fundamental enabler for emerging technologies, including Artificial Intelligence, autonomous vehicles, and the Internet of Things. Current uses of high-accuracy positioning include precision agriculture, surveying and land management, and machine automation in road construction and mining. PNT supports most critical infrastructures, such as communications and emergency transport (land, air and marine navigation). Financial transactions, power grids, and e-commerce depend on GNSS-derived timing. Because of their importance for the economy and for safety and security, other nations plan to provide high-accuracy, real-time GNSS services as a free, publicly funded PNT utility.

## 2. OBJECTIVES

The objective of this work is to better understand PNT infrastructure requirements for next-generation transportation systems. Results will support a whole of government strategy for Canadian PNT/GNSS infrastructure investment through the PNTB.

- a. Define service level requirements (integrity, availability, continuity, accuracy) and analyze performance levels for highly automated systems by transportation mode; rail, marine, road, and remotely piloted aircraft systems (RPAS).

- b. Define target network coverage requirements in terms of station density and any metrics used to define triggers for network expansion (e.g, population density, equipment redundancy, station redundancy, client requirements for station expansion)
- c. Conduct a standards assessment analysis while cataloging development timelines in jurisdictions specified in section 3.
- d. Map the industry stakeholders and technologies available as they deliver service levels in objective a. required for optimal performance & economic opportunity across all of Canada.
- e. Conduct primary and secondary research with identified stakeholders in order to characterize the pros and cons of varying technology approaches with a key focus on delivery methods communications links, security (e.g., of receivers, servers and station IT infrastructure), & scalability.
- f. Develop detailed specifications and rough order of magnitude costing for the potential expansion and investment of Canadian infrastructure to meet the technology requirements observed in objective a. above. With a key focus on gaps & strategic investment to maximise investment dollars.
- g. Identify what ways that the Government of Canada or other levels of government could enable or accelerate the development PNT infrastructure to meet industry needs. e.g., would government hosted sites help?
- h. Recommend a national operation model looking into the future for highly accurate Canadian positioning service infrastructure.

### **3. CONTRACTOR TASKS**

#### **3.1 Working Group & Kickoff**

##### **3.1.1 Project Plan & Approach**

- Upon contract award, prepare a project plan outlining weekly progress targets on tasks and allocation of project resource(s)' time in person-days.

##### **3.1.2 Working Group Development**

- Work with Transport Canada to develop a working group for the project. The working group will give participants opportunities to share how their respective organization is addressing problems and identify research gaps.

##### **3.1.3 Working Group Management**

- prepare meeting materials, agenda, notes and invitations to members;
- Maintain the list of group members as needed;
- Initiate project discussions, and loop feedback;
- Chair the WG meetings and facilitate discussion;
- Host meetings at project milestones remotely or in person.

#### **3.2 Requirement Analysis Report**

##### **3.2.1 Technology Review**

###### **3.2.1.1 Literature review of performance levels required for highly automated systems by transportation mode.**

- Analyze sector level positioning requirements for automation in by modes including, rail, road, marine, port, and air operations (including remotely piloted aircraft systems)
- Highlight current state of the art, and upcoming innovations as they relate to the type, quality, integrity, and availability (northern coverage) of future augmented GNSS services in a Canadian context
  - Reference: J. DELISLE, "Future of DGPS", Valcom Consulting, Contract F7048-090005/023-T075, Québec City, Québec, Canada, March 2020, 99 pages



**3.2.1.2** Literature review of international high precision GNSS service design, including but not limited to:

- *Satellite constellations providing high precision augmented signals via GNSS. GNSS signals: GPS (US), QZSS (JAPAN), GALILEO (EU), BEIDOU (CHINA), GLONASS-K (RUSSIA)*
  - *Including brief history, capabilities, services roadmap*
    - *Reference: CCG chap.4 Constellation status and modernization from CCG report on resilient PNT backup solution for maritime navigation (to be provided by TC)*
  - *Satellite Based Augmentation (SBAS): WAAS, MSAS, EGNOS, GAGAN, SDCM, BDSBAS, KASS etc...*
- *Commercial Augmentation Services including reporting from; Choy, Kuckartz, Dempster, Rizos and Higgins, GPS Solutions, July 2017*

### **3.2.2 Standards & Policy Review**

**3.2.2.1** Literature review of IGNSS Society of Australia / Geoscience Australia GNSS policy and design, including but not limited to:

- *The Development of Precise Positioning Capabilities in Mass Market Devices, Matt Higgins*
- *The Australian government's 4-year plan to upgrade and densify its National Positioning Infrastructure (NPI) to improve accuracy from coast to coast*

**3.2.2.2** Literature review of The International Committee on Global Navigation Satellite Systems (ICG): Working Group

- *Group S – Systems, Signals & Services, Performance Standards*
- *Group B - Enhancement of GNSS Performance, New Services, and Capabilities*

**3.2.2.3** Literature review of the European Union and the United States Working Group C (EU-US WG-C) on next GNSS generation meetings #1-13.

- *Review should also include coverage of US-EU rollouts for SBAS services.*

**3.2.2.4** Literature review of international reporting on GNSS / satellite-based augmentation services and high precision signal infrastructure as needed

- *Summary Report from Canadian Positioning, Navigation and Timing (PNT) Workshop on Connected and Automated Vehicles (CAV), Transport Canada*
- *Reporting from various event's hosted by the UN i.e. UN/Fiji Workshop on the Applications of GNSS, 24-28 June 2019*
- *US National Space-Based Positioning Navigation and Timing (PNT) Advisory Board Meetings*
- *NRCAN – Value of Precision GNSS Services in Canada*

**3.2.2.5** *Brief highlights* of Canadian data privacy legislation as it applies to GNSS data, including but not limited to:

- *Privacy Act, Government of Canada*
- *Personal Information Protection and Electronic Documents Act, Government of Canada*
- *Personal Information Protection Act, Government of British Columbia*
- *Personal Information Protection Act, Government of Alberta*
- *Act Respecting the Protection of Personal Information in the Private Sector, Government of Quebec*

### **3.2.3 Stakeholder Mapping & Primary Research**

#### **3.2.3.1 Surveys & Primary Research**

- *Leveraging working group members and contacts, develop a detailed global stakeholder list with a focus on those who have market share in North America.*
- *Service providers surveyed must include & are not limited to; Trimble, NovAtel, Leica, Brandt, Sapcorda, Septentrio, Topcon, Navcom, Case New Holland, Fugro, & GMV. For additional guidance on providers see;*
  - *GPS Receiver Manufacturers, System Integrators, Equipment Suppliers, and Service Providers: <http://gauss.gge.unb.ca/manufact.htm>*
  - *EU GNSS Market Report: <https://www.gsa.europa.eu/european-gnss/gnss-market/gnss-user-technology-report>*
- *Develop consultation documents with the working group (e.g. surveys) to seek input from industry stakeholders, provinces, territories and municipalities, as needed, in the Requirement Analysis; analyze and summarize results.*
  - *Consultations sample questions: Which nation(s) have provided the most supportive ecosystems for offering GNSS services and why? Are there any nations that are hindering the growth of precision GNSS services? How? How important are International Terrestrial Reference Frame (ITRF) investments to the long term success of your business? Do you have suggestions on what should be done to promote the health of the ITRF?*
- *Understand the pros and cons of varying technology approaches with a key focus on delivery methods, security, & scalability.*
- *Develop detailed specifications and rough order of magnitude costing for the potential expansion and investment of Canadian infrastructure to meet the technology requirements outlined in the literature review.*

### **3.3 Workshop & Final Recommendations Report**

- 3.3.1** Organize and lead a one-day stakeholder workshop to present the recommended strategies models and gather feedback. This workshop must include gathering input on public/private sector governance, operation, and ownership models for Canadian GNSS augmentation services.
- 3.3.2** Based on literature review and stakeholder consultation and workshop, develop recommendations of elements from US, EU and Australian systems that would be valuable to apply in a Canadian context.
- 3.3.3** Based on stakeholder consultation, develop recommendations where there is policy or technical flexibility to better meet the interests of Canadians. Identify barriers in policy (i.e. land accessibility issues), and highlight opportunities for technology advances on a federal strategy level.
- 3.3.4** Document, analyze and summarize results of consultations in a workshop summary report, incorporating feedback from the sessions.
- 3.3.5** A final presentation shall be provided to promote the content of the final project report. A clear, concise and effective overview of the findings of this work is required in presentation form with original graphical work that will effectively portray key messages. The presentation shall be delivered as part of the final deliverables package.

#### 4. DELIVERABLES

Specific deliverables are due as per the schedule below:

Item	Deliverable / Milestone	Task	Estimated Timeline (Within X weeks of contract award)	Basis of Payment (Deliverable based)
1	Project Plan & Kickoff (revised after contract award) outlining weekly progress targets on tasks and allocation of project resource(s)' time in person-days.	3.1	2	-
2	Formation of Working Group & Outline of Requirement Analysis report. Develop consultation plan and surveys to seek input from industry stakeholders, provinces, academia, territories and municipalities.	3.1	4	-
3	Draft Requirements Analysis Report & lead a working group meeting to present analysis and gather feedback on the status of the work.	3.2	10	20%
4	Final Requirements Report	3.2	12	-
5	Workshop & Presentation – Organize and lead a one-day stakeholder workshop to gather input, present findings and hear from industry leaders present within the consultation phase. Workshop will take place online with an estimated 60 participants.	3.3	16	-
6	Draft Recommendations Report – Incorporates feedback from the workshop, and final consultations.	3.3	18	20%
7	Final Deliverables Package, including Recommendations Report & Presentation.	3.3	20	-
8	Project Closeout	-	22	60%

##### 4.1 Contract Period

The contract period will be from the date of contract award to December 31<sup>st</sup>, 2021.

##### 4.2 Format of Deliverables

All deliverables are to be provided in electronic version compatible with MS Word and MS PowerPoint in English.

Presentations, outlines, interim and final reports will be in English only.

The report should be written in a consistent style throughout the document with simplified language to make the text accessible to as large an audience as possible.

#### **4.3 Acceptance**

All work and services shall be provided to the entire satisfaction of the Project Authority prior to payment of invoice.

#### **5. LANGUAGE OF WORK**

The principal language of communications both verbally and written will be English. Transport Canada will facilitate and pay the costs when translations are required.

#### **6. MEETINGS**

Meetings between the contractor are to be scheduled **bi-weekly (MS Teams / Web Ex / Teleconference)** for status update and addressing issues. Meetings are not limited to that time period only and can be generated when required.

#### **7. INTELLECTUAL PROPERTY**

Transport Canada has determined that any intellectual property rights arising from the performance of the work under the resulting contract will belong to Canada, for the following reasons, as set out in the Policy on Title to Intellectual Property Arising under Crown Procurement Contract:

- Where the main purpose of the Crown Procurement Contract, or the deliverables contracted for, is to generate knowledge and information for public dissemination.

#### **8. COMMERCIALLY SENSITIVE INFORMATION**

The information provided as part of the process may include information that is commercially sensitive. Commercially sensitive information collected via surveys will be for Government of Canada usage only, and not for public dissemination. The contractor will highlight sections of the final report in the case where information was sourced in confidence.

A final summarized report will be shared in the public forum where commercially sensitive information will be redacted as needed. Any information provided as part of this process will be protected from disclosure to the extent permitted by law. The Contractor will ensure that its handling of confidential, proprietary and market sensitive data obtained from Transport Canada and other sources protects the interests of the sources.

Before receiving the data or information, the contractor must conclude a formal agreement with Transport Canada on the handling, use and final disposition of the data.

#### **9. CONFIDENTIALITY**

The Contractor and Transport Canada recognized that the intention of the research is to generate data and information for public dissemination. Each Party shall notify the other Party prior to publishing reports, articles, papers or other publications of the results of the research, including posting to a website or presenting at conferences, meetings, workshops etc., and shall include a copy of the intended publication with the notification.

The notified Party will respond to the other Party within fourteen (14) days after reception of the intended publication document, if it has any concerns with publication. Each Party will provide acknowledgement to the other Party whenever information generated by the research is cited in a published document.

The Contractor agrees:

- a. not to reproduce, in any form, any portion of the contractual document.
- b. to hold in strictest confidence all Confidential Information obtained in connection with this contract and agrees not to disclose such information to any Person other than those direct members of the Departmental project team as identified by the Departmental Representative, in writing, prior to commencement of work.
- c. to take all precautions in dealing with Confidential Information so as to prevent any unauthorized person from having access to such confidential Information.
- d. For the purpose of this Contract, the term "Confidential Information" means all information (whether oral, written or computerized) which is identified orally or in writing as being information of a "confidential", "restricted" or "protected" nature and must include any excerpts of or copies made of such information and any notes made from the review of such material by the Contractor. The Contractor agrees that if they are in doubt whether certain information is confidential, they must handle such information as confidential until advised by the Departmental Representative that it is not confidential. This confidentiality covenant must survive the termination of any Contract with the Contractor and must remain in full force and effect unless specifically released by Transport Canada.

#### **10. SECURITY REQUIREMENTS**

The Contractor will not have access to protected information or assets, therefore there is no security requirements associated with this project.

**ANNEX "B" - BASIS OF PAYMENT (Financial Proposal)**

The Bidder shall tender an all-inclusive fixed price for the conduct of all work described in the Statement of Work in Annex A, and in accordance with the Milestone Schedule and Tasks detailed below:

The price quoted includes all expenses that may be incurred in providing the services, such as profit, overhead, administrative costs, equipment, materials and travel.

No.	Milestone Deliverable & Descriptions	Estimated Timeline (Within X weeks of contract award)	Milestone Pmt %	Milestone Payment
1	<b>Project Kickoff</b> Project Plan & Kickoff (revised after contract award) outlining weekly progress targets on tasks and allocation of project resource(s)' time in person-days.	2	-	
2	<b>Project Research Phase</b> Formation of Working Group & Outline of Requirement Analysis report. Develop consultation plan and surveys to seek input from industry stakeholders, provinces, academia, territories and municipalities.	4	-	
3	<b>Draft Requirements Report</b> Draft Requirements Analysis Report & lead a working group meeting to present analysis and gather feedback on the status of the work.	10	20%	\$ _____
4	<b>Final Requirements Report</b> The final draft of the report will include modifications from the feedback at the draft stage.	12	-	
5	<b>Workshop &amp; Meeting</b> Workshop & Presentation – Organize and lead a one-day stakeholder workshop to gather input, present findings and hear from industry leaders present within the consultation phase. Workshop will take place online with an estimated 60 participants.	16	-	
6	<b>Draft Recommendations Report</b> Draft Recommendations Report – Incorporates feedback from the workshop, and final consultations.	18	20%	\$ _____
7	<b>Final Program Reports</b> Final Deliverables Package, including Recommendations Report & Presentation.	20	-	
8	<b>Project Closeout</b> Closeout phase will include TC approval of the final deliverables package.	22	60%	\$ _____
<b>Total All-Inclusive Fixed Price for Evaluation Purposes</b>				
<b>Sum of Milestone 1 to Milestone 5 (with no Taxes)</b>				\$ _____
<b>Applicable Taxes (insert the amount as applicable)</b>				\$ _____
<b>Total Cost (Taxes included)</b>				\$ _____

Bidders shall provide a breakdown of the all-inclusive fixed price, quoted in the table above, in accordance with the following requirements:

Category of Personnel	Per Diem Rates	No. of Days Assigned	Total Amount

**NOTE:** The above cost breakdown is required to provide an indication of the level of effort and other activities proposed by the bidder, and may be used to facilitate the evaluation of the proposal. The breakdown is provided solely in support of the tendered all-inclusive fixed price for Professional Services and Associated Costs. **The tendered all-inclusive fixed price will prevail in the event of any discrepancies between the two.**

## ANNEX "C" - MANDATORY AND RATED CRITERIA

### **MANDATORY CRITERIA:**

Proposals submitted for this requirement must clearly demonstrate that the proposed resources meet all of the mandatory criteria. Failure to demonstrate this will result in the Proposal being declared NON-COMPLIANT and the Proposal will be given no further consideration.

Bidders are advised that only listing experience without providing any supporting data to describe where and how such experience was obtained will not constitute "clearly demonstrated" for the purpose of the evaluation. Supporting data may include résumés and any other documentation necessary to clearly demonstrate the experience and knowledge attained. Simply repeating the statements contained in the Statement of Work is not sufficient.

In order to evaluate the number of years of experience attained, the Proposal must, at a minimum, identify the month and year when the experience commenced and the month and year when the experience was completed. Failure to provide this information will be to the disadvantage of the Bidder. Failure to provide this information in response to a Mandatory Criteria, wherein the number of years of experience is required in order to calculate number of years' experience attained, will result in the Proposal being declared NON-COMPLIANT.

Bidders are also advised that the month(s) of experience listed for a project whose timeframe overlaps that of another referenced project will only be counted once. For example: Project 1 timeframe is July 2003 to December 2003; project 2 timeframe is October 2003 to January 2004; the total months of experience for these two project references are seven (7) months.

The Proposal will be evaluated solely on its content and the documentation provided as part of the Bidder's Proposal, except as otherwise specifically provided in this solicitation. Any information or personnel proposed as options or additions to the Work will not be evaluated.

It is recommended that Bidders include a grid in their proposals, cross-referring the items of the Statement of Work and Evaluation Criteria to statements of compliance with reference to supporting data and/or résumé documentation contained in their Proposals. Any misrepresentations discovered during the assessment will disqualify the entire Proposal from further evaluation.

**Information to Bidders:** The compliance grid, by and of itself, DOES NOT constitute clearly demonstrated evidence that the Bidder has met the mandatory criteria. As stated in the paragraphs above, the supporting data and/or résumé documentation will be accepted as evidence.

### **Table 1: Required Format for Demonstrating Experience - Mandatory and Rated Criteria**

To demonstrate either work experience or project experience, the bidder must provide (at a minimum) the following information in order to demonstrate compliance (in addition to any other required information identified in the criterion):

- a. The name of the client organization and the name, title and email address of a contact person that may be used as a reference to validate projects or experiences;
- b. A description of the project, including the scope and elements of the framework, and the results/outcomes of the work undertaken by the bidder;
- c. The dates/-duration of the work/project indicating the year/months of engagement by the bidder
- d. Description of the activities performed by the proposed resource team members relevant to the criteria



**STEP 1 - Mandatory Technical Criteria (M)**

No	Mandatory Requirement	Bidder Response / Cross Reference to Proposal and/or CV	Compliant? (Yes/No)
M1	<p>The Bidder must propose at least one (1) resource as the Project Lead with demonstrated work or project managerial experience in the last 60 months (5 years) from the date of bid closing, having performed all of the following:</p> <ul style="list-style-type: none"> <li>a) Conducting and supervising literature reviews on technical subjects</li> <li>b) Interviewing stakeholders on technical subjects</li> <li>c) Producing reports and summaries on technical subjects</li> <li>d) Has demonstrated extensive experience (5+ years) in conducting and managing projects related to advanced transportation technologies and applications proposed under this RFP</li> </ul> <p>To demonstrate compliance, the Bidder must provide</p> <ol style="list-style-type: none"> <li>1. A CV(resume) for the proposed resource identified as the Project Lead; (with a minimum of 5 years' experience) and</li> <li>2. A description of the proposed resource(s) work experience and project experience in accordance with the format as outlined in Table 1, which identifies how the proposed resource meets experience requirement a, b, c, d above</li> </ol>		<p>Yes: <input type="checkbox"/></p> <p>No : <input type="checkbox"/></p>
M2	<p><b>Applicable ONLY if the Bidder team includes team member(s) other than the Project Lead identified in M1.</b></p> <p>The Bidder must also present and identify the other team members (if any) with a summary of their qualifications with a CV(resume) and the roles and responsibilities (if any) for this project</p>		<p>Yes: <input type="checkbox"/></p> <p>No : <input type="checkbox"/></p> <p>N/A : <input type="checkbox"/></p>

<b>M3</b>	<p>The Bidder must demonstrate having completed a minimum one (1) project within the past five (5) years from the date of bid closing working with one (1) GNSS (Global Navigation Satellite System) industry member including service providers to analyze information on advanced technologies being deployed to modernize/automate the transportation sector.</p> <p>To demonstrate compliance, the Bidder must provide a description of the proposed resource(s) work experience and project experience in accordance with the format as outlined in Table 1. The description must identify how the proposed resource has acquired the mandatory experience requirements working with the GNSS (Global Navigation Satellite System) industry including service providers to obtain and analyze technical information on advanced technologies to modernize/automate the transportation sector.</p>		<b>Yes:</b> <input type="checkbox"/> <b>No :</b> <input type="checkbox"/>
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<b>M4</b>	<p>The Bidder must demonstrate having completed one (1) project within the past five (5) years (from the date of bid closing), involving detailed analysis of the impact of advanced GNSS (Global Navigation Satellite System) technologies and services.</p> <p>To demonstrate compliance, the Bidder must provide a description of the proposed resource(s) work experience and project experience in accordance with the format as outlined in Table 1. The description must identify how the proposed resource acquired the mandatory experience requirements working on a project involving detailed analysis of the impact of advanced GNSS (Global Navigation Satellite System) technologies at advancing automation in the transportation sector.</p>		<b>Yes:</b> <input type="checkbox"/> <b>No :</b> <input type="checkbox"/>
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**RATED CRITERIA:**

Proposals **meeting ALL Mandatory Criteria** will be evaluated and rated against the following Point-Rated Criteria, using the evaluation factors specified for each criterion. It is imperative that these criteria be addressed in sufficient depth in the proposal to fully describe the Bidder's response and to permit the evaluation Team to rate the proposals.

Bids **MUST achieve an overall minimum score of 65 out of 100 possible points** of the Rated Requirements, to be considered technically responsive.

Proposals which fail to attain **at least 65 points** of the Rated Requirements will be considered technically non-responsive and no further evaluation will be conducted.

**Step 2 - Point Rated Technical Criteria (R)**

Bids who meet all of the mandatory technical criteria will be further evaluated and scored against the following rated requirements. Bids which fail to obtain the required minimum number of points specified will be declared non-responsive. Each point rated technical criterion should be addressed separately.

No.	Rated Requirements	Bidder Response / Cross Reference to Proposal and/or CV	Maximum Score	Bidder score
R1	<p><b>The Bidder is to demonstrate in their proposal their understanding of the project's objective, scope, tasks and deliverables as stated in the Statement of Work (SOW): Annex A. A combination of methodology and relevant previous experience will be considered.</b></p> <p><b>(20 points):</b> Bidder's proposal demonstrates a <b>complete and thorough</b> understanding of the project's objective, scope, tasks and deliverables</p> <p><b>(15 points):</b> Bidder's proposal demonstrates a <b>thorough</b> understanding of the project's objective, scope, tasks, and deliverables</p> <p><b>(10 points):</b> Bidder's proposal demonstrates a <b>general</b> understanding of the project's objective, scope, tasks and deliverables.</p> <p><b>(5 points):</b> Bidder's proposal demonstrates an incomplete or incorrect understanding of the project's objective, scope, tasks, and deliverables.</p> <p><b>(0 point):</b> Bidder's proposal does not demonstrate or address any understanding of the project's objective, scope, tasks, and deliverables.</p>		/20	

	<p>The following definitions will be used to evaluate R1</p> <ul style="list-style-type: none"> <li>• <b>Complete and thorough</b> means the proposal satisfies all elements of the objectives, scope, tasks, and deliverables and includes significant added insights that demonstrate the completeness of understanding of the objectives.</li> <li>• <b>Thorough</b> means the proposal satisfies all elements of the objectives, scope, tasks, and deliverables.</li> <li>• <b>General</b> means the proposal satisfies most but not all elements of the objectives, scope, tasks, and deliverables.</li> <li>• <b>Incomplete or incorrect</b> mean the proposal does not satisfy or include most elements of the objectives, scope, tasks and deliverables.</li> </ul>			
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<p><b>R2</b></p>	<p><b>Proposed approach, Project Work-plan and schedule</b></p> <p>The Bidder's proposal is to include a proposed approach, project workplan and schedule that details deadlines and milestones regarding how they would complete the tasks included in the Statement of Work (SOW): Annex A</p> <p>Namely;</p> <ol style="list-style-type: none"> <li>a) methodology/approach to addressing the issues;</li> <li>b) description of potential risks and risk mitigation strategies;</li> <li>c) Identification and discussion of assumptions they make in their proposed approach;</li> <li>d) Identification of management, administrative and engineering tasks required for successful completion of each task outlined in the SOW;</li> <li>e) A schedule that includes all the tasks and subtasks, and the required inputs from Canada (if any are identified in the bidder's proposal);</li> <li>f) Identifies critical path activities; and presents consideration to anticipate and avoid delays;</li> </ol> <p>The above will be evaluated for completeness, clarity, and achievability, as demonstrated through use of a work-breakdown structure mapped to the tasks in the Statement of Work (SOW).</p> <p><b>(40 points):</b> Bidder provides a <b>comprehensive</b> description of their proposal with significant added insights. For the purposes of evaluating R2, a <b>comprehensive</b> description is defined as including all of the above {a-f)} and more.</p>		<p style="text-align: center;"><b>/40</b></p>	
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	<p><b>(30 points):</b> Bidder provides a <b>complete</b> description of their proposed approach with some added insights. For the purposes of evaluating R2, a <b>complete</b> description is defined as including all of the above {a-f}).</p> <p><b>(20 points):</b> Bidder provides a <b>general</b> description of their proposed approach with few added insights. For the purposes of evaluating R2, a <b>general</b> description is defined as including most but not all of the above {a-f}).</p> <p><b>(10 points):</b> Bidder provides an <b>incomplete</b> description of their proposed technical approach with no added insights. For the purposes of evaluating R2, an <b>incomplete</b> description is defined as not even including most of the above {a-f}).</p> <p><b>(0 points):</b> Bidder does not provide a proposed approach or a project plan to complete the Statement of Work (SOW).</p>			
<p><b>R3</b></p>	<p>For the Bidder's Project Lead identified in Mandatory Criteria (M1), demonstrated project managerial experience of 4 or more projects, in the last five (5) years from the date of bid closing, having:</p> <ul style="list-style-type: none"> <li>a. Supervising and Conducting literature reviews on technical subjects</li> <li>b. Interviewing stakeholders on technical subjects</li> <li>c. Produce reports and summary on technical subjects</li> <li>d. Has demonstrated extensive experience (5+ years) in conducting and managing projects directly related to the technologies and applications proposed under this RFP (Position Navigation Timing (PNT) Infrastructure).</li> </ul> <p>The project(s) work should be presented in accordance with the format as outlined in Table 1, which identifies how the proposed resource meets experience requirement a, b, c above</p> <p><b>(20 points):</b> 4 or more projects.  <b>(15 points):</b> 3 projects.  <b>(10 points):</b> 2 projects.  <b>(5 points):</b> 1 project</p>		<p>/20</p>	

<b>R4</b>	<p>The Bidder's proposal should demonstrate 3 or more projects in the last five (5) years from the date of bid closing, including investigating the impact of advanced GNSS (Global Navigation Satellite System) technologies at advancing automation in the transportation sector</p> <p>The project(s) work should be presented in accordance with the format as outlined in Table 1, which identifies how the proposed resource has worked on project(s), investigating emerging GNSS (Global Navigation Satellite System) technologies &amp; service provider's, identifying their performance characteristics and potential for expansion in a Canadian context.</p> <p><b>(10 points):</b> 3 or more projects.  <b>(7 points):</b> 2 projects.  <b>(5 points):</b> 1 project  <b>(0 points):</b> 0 project</p>		<b>/10</b>	
<b>R5</b>	<p>The Bidder's proposal shall demonstrate 3 or more projects in the last five (5) years from the date of bid closing, in performing cost-benefit analysis for transformative transportation technologies.</p> <p>The Bidder should demonstrate experience in identifying fixed and variable costs; and experience identifying tooling and capital equipment costs related to the introduction of transportation technologies and services.</p> <p>The project(s) work should be presented in accordance with the format as outlined in Table 1, which identifies how the proposed resource has worked on project(s) performing cost-benefit analysis for transportation technologies in identifying fixed and variable costs; and experience identifying tooling and capital equipment costs related to the introduction of new commercial services, and their impact on consumers.</p> <p><b>(10 points):</b> 3 or more projects.  <b>(7 points):</b> 2 projects.  <b>(5 points):</b> 1 project  <b>(0 points):</b> 0 project</p>		<b>/10</b>	
<b>Maximum available points</b>			<b>100</b>	
<b>Minimum overall points required</b>			<b>65</b>	
<b>Bidder score ( *)</b>				
<b>Result</b>			Met: <input type="checkbox"/>	Not Met: <input type="checkbox"/>

(\*): Overall Technical score. This value constitutes the technical evaluation score for bid evaluation and contractor selection purposes.

**ANNEX "D" to PART 3 OF THE BID SOLICITATION**

**ELECTRONIC PAYMENT INSTRUMENTS**

The Bidder accepts any of the following Electronic Payment Instrument(s):

( ) Direct Deposit (Domestic and International);