



## **REQUEST FOR PROPOSALS**

**Title:** Development of an Intelligent Transportation Systems Strategy

**Reference No.:** 1220-030-2020-009

### **FOR PROFESSIONAL SERVICES (CONSULTANT)**

(General Services)

Issue Date: February 27, 2020

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## REQUEST FOR PROPOSALS

### 1. INTRODUCTION

#### 1.1 Purpose

The City of Surrey (the “**City**”) is interested in receiving proposals (the “**Proposal**”) from proponents (the “**Proponent**”) who have experience developing public engagement strategies.

The purpose of this request for proposals (the “**RFP**”) is to solicit competitive proposals for the most appropriate consulting services (the “**Services**”) as described in Schedule A.

This RFP is designed to provide the Proponent with the information necessary to prepare a competitive Proposal. Similarly, the RFP process is intended to also provide the City with the information it requires to select a Proponent to provide the Services. Specifically, the City is looking for a Proponent whose Proposal meets or exceeds the City’s requirements as described in Schedule A.

#### 1.2 Definitions

In this RFP the following definitions shall apply:

“**BC Bid Website**” means [www.bcbid.gov.bc.ca](http://www.bcbid.gov.bc.ca);

“**City**” means the City of Surrey;

“**City Representative**” has the meaning set out in section 2.5;

“**City Website**” means [www.surrey.ca](http://www.surrey.ca);

“**Closing Time**” has the meaning set out in section 2.1;

“**Contract**” means a formal written contract between the City and a Preferred Proponent to undertake the Services, the preferred form of which is attached as Schedule B;

“**Evaluation Team**” means the team appointed by the City;

“**Information Meeting**” has the meaning set out in section 2.2;

“**Preferred Proponent(s)**” means the Proponent(s) selected by the Evaluation Team to enter into negotiations for a Contract;

“**Proponent**” means an entity that submits a Proposal;

“**Proposal**” means a proposal submitted in response to this RFP;

“**RFP**” means this Request for Proposals;

“**Services**” has the meaning set out in Schedule A;

“**Site**” means the place or places where the Services are to be performed; and

“**Statement of Departures**” means Schedule C-1 to the form of Proposal attached as Schedule C.

## **2. INSTRUCTIONS TO PROPONENTS**

### **2.1 Closing Time and Address for Proposal Delivery**

A Proposal should be labelled with the Proponent’s name, RFP title and number. A Proposal should be submitted in the form attached to this RFP as Schedule C – Form of Proposal.

The Proponent may submit a Proposal either by email or in a hard copy, as follows:

#### **(a) Email**

If the Proponent chooses to submit by email, the Proponent should submit the Proposal electronically in a single pdf file which must be delivered to the City by email at: [purchasing@surrey.ca](mailto:purchasing@surrey.ca)

**on or before the following date and time**

**Time: 3:00 p.m., local time**

**Date: March 19, 2020**

**(the “Closing Time”).**

**PDF emailed Proposals are preferred** and the City will confirm receipt of emails. Note that the maximum file size the City can receive is 10Mb. If sending large email attachments, Proponents should phone to confirm receipt. A Proponent bears all risk that the City’s equipment functions properly so that the Proposal is submitted on time.

#### **(b) Hard Copy**

If the Proponent chooses NOT to submit by email, the Proponent should submit one (1) original unbound Proposal and two (2) copies (three (3) in total) which must be delivered to the City at the office of:

Name: Richard D. Oppelt, Purchasing Manager  
at the following location:

Address: City of Surrey, Surrey City Hall  
Finance Department – Purchasing Section  
Reception Counter, 5<sup>th</sup> Floor West  
13450 – 104 Avenue, Surrey, B.C., Canada V3T 1V8

**on or before the Closing Time.**

## 2.2 Information Meeting

An information meeting may be hosted by the City Representative to discuss the City's requirements under this RFP (the "**Information Meeting**"). While attendance is at the discretion of Proponents, Proponents who do not attend will be deemed to have attended the Information Meeting and to have received all of the information given at the Information Meeting. At the time of issuance of this RFP a meeting has not been scheduled.

## 2.3 Late Proposals

Proposals submitted after the Closing Time will not be accepted or considered. Delays caused by any delivery, courier or mail service(s) will not be grounds for an extension of the Closing Time.

## 2.4 Amendments to Proposals

Proposals may be revised by written amendment, delivered to the location set out in Section 2.1, at any time before the Closing Time but not after. An amendment should be signed by an authorized signatory of the Proponent in the same manner as provided by section 3.3. E-mailed amendments are permitted, but such amendment should show only the change to the proposal price(s) and should not disclose the actual proposal price(s). A Proponent bears all risk that the City's equipment functions properly so as to facilitate timely delivery of any amendment.

## 2.5 Inquiries

All inquiries related to this RFP should be directed in writing to the person named below (the "**City Representative**"). Information obtained from any person or source other than the City Representative may not be relied upon.

Name: Richard D. Oppelt, Purchasing Manager, Procurement Services

Address: City of Surrey, Surrey City Hall  
Finance Department – Procurement Services Section  
Reception Counter, 5<sup>th</sup> Floor West  
13450 – 104 Avenue, Surrey, B.C., V3T 1V8, Canada

Business Fax: 604-599-0956  
Business E-mail: purchasing@surrey.ca

Reference: 1220-030-2020-009

Inquiries should be made no later than 7 business days before Closing Time. The City reserves the right not to respond to inquiries made within 7 business days of the Closing Time. Inquiries and responses will be recorded and may be distributed to all Proponents at the discretion of the City.

Proponents finding discrepancies or omissions in the Contract or RFP, or having doubts as to the meaning or intent of any provision, should immediately notify the City Representative. If the City determines that an amendment is required to this RFP, the City Representative

will issue an addendum in accordance with section 2.6. No oral conversation will affect or modify the terms of this RFP or may be relied upon by any Proponent.

## **2.6 Addenda**

If the City determines that an amendment is required to this RFP, the City Representative will issue a written addendum by posting it on the BC Bid Website at [www.bcbid.gov.bc.ca](http://www.bcbid.gov.bc.ca) (the “**BC Bid Website**”) and the City Website at [www.surrey.ca](http://www.surrey.ca) (the “**City Website**”) that will form part of this RFP. No amendment of any kind to the RFP is effective unless it is posted in a formal written addendum on the City Website. Upon submitting a Proposal, Proponents will be deemed to have received notice of all addenda that are posted on the City Website.

## **2.7 Examination of Contract Documents and Site**

Proponents will be deemed to have carefully examined the RFP, including all attached Schedules, the Contract and the Site (as applicable) prior to preparing and submitting a Proposal with respect to any and all facts which may influence a Proposal.

## **2.8 Opening of Proposals**

The City intends to open Proposals in private but reserves the right to open Proposals in public at its sole discretion.

## **2.9 Status Inquiries**

All inquiries related to the status of this RFP, including whether or not a Contract has been awarded, should be directed to the City Website and not to the City Representative.

## **3. PROPOSAL SUBMISSION FORM AND CONTENTS**

### **3.1 Package (Hard Copy)**

If the Proponent chooses NOT to submit by email, the Proponent should submit a Proposal in a particular submittal format, to reduce paper, encourage our recycled product expectations, and reduce package bulk. Bulk from binders and large packages are unwanted. Vinyl plastic products are unwanted. The City also has an environmentally-preferable purchasing commitment, and seeks a package format to support the green expectations and initiatives of the City.

Please do not use any plastic or vinyl binders or folders. The City prefers simple, stapled paper copies. If a binder or folder is essential due to the size of your Proposal, they should be fully 100% recycled stock.

The City seeks and prefers submittals on 100% Post Consumer Fibre (PCF) paper, consistent with the City’s policy and the City environmental practices.

Please double-side your Proposal.

### **3.2 Form of Proposal**

Proponents should complete the form of Proposal attached as Schedule C, including Schedules C-1 to C-5. Proponents are encouraged to respond to the items listed in Schedules C-1 to C-5 in the order listed. Proponents are encouraged to use the forms provided and attach additional pages as necessary.

### **3.3 Signature**

The legal name of the person or firm submitting the Proposal should be inserted in Schedule C. The Proposal should be signed by a person authorized to sign on behalf of the Proponent and include the following:

- (a) If the Proponent is a corporation then the full name of the corporation should be included, together with the names of authorized signatories. The Proposal should be executed by all of the authorized signatories or by one or more of them provided that a copy of the corporate resolution authorizing those persons to execute the Proposal on behalf of the corporation is submitted;
- (b) If the Proponent is a partnership or joint venture then the name of the partnership or joint venture and the name of each partner or joint venturer should be included, and each partner or joint venturer should sign personally (or, if one or more person(s) have signing authority for the partnership or joint venture, the partnership or joint venture should provide evidence to the satisfaction of the City that the person(s) signing have signing authority for the partnership or joint venture). If a partner or joint venturer is a corporation then such corporation should sign as indicated in subsection (a) above; or
- (c) If the Proponent is an individual, including a sole proprietorship, the name of the individual should be included.

## **4. EVALUATION AND SELECTION**

### **4.1 Evaluation Team**

The evaluation of Proposals will be undertaken on behalf of the City by the Evaluation Team. The Evaluation Team may consult with others including City staff members, third party consultants and references, as the Evaluation Team may in its discretion decide is required. The Evaluation Team will give a written recommendation for the selection of a Preferred Proponent or Preferred Proponents to the City.

### **4.2 Evaluation Criteria**

The Evaluation Team will compare and evaluate all Proposals to determine the Proponent's strength and ability to provide the Services in order to determine the Proposal which is most advantageous to the City, using the following criteria:

- (a) **Experience, Reputation and Resources**  
The Evaluation Team will consider the Proponent's responses to items in Schedule C-2.

**(b) Technical**

The Evaluation Team will consider the Proponent's responses to items in Schedule C-3 and Schedule C-4.

**(c) Financial**

The Evaluation Team will consider the Proponent's response to Schedule C-5.

**(d) Statement of Departures**

The Evaluation Team will consider the Proponent's response to Schedule C-1.

The Evaluation Team will not be limited to the criteria referred to above, and the Evaluation Team may consider other criteria that the team identifies as relevant during the evaluation process. The Evaluation Team may apply the evaluation criteria on a comparative basis, evaluating the Proposals by comparing one Proponent's Proposal to another Proponent's Proposal.

The City's intent is to acquire the solution that provides the best value to the City and meets or exceeds the requirements of this RFP. All criteria considered will be applied evenly and fairly to all Proposals.

**4.3 Discrepancies in Proponent's Financial Proposal**

If there are any obvious discrepancies, errors or omissions in Schedule C-5 of a Proposal (Proponent's Financial Proposal), then the City shall be entitled to make obvious corrections, but only if, and to the extent, the corrections are apparent from the Proposal as submitted, and in particular:

- (a) if there is a discrepancy between a unit price and the extended total, then the unit prices shall be deemed to be correct, and corresponding corrections will be made to the extended totals;
- (b) if a unit price has been given but the corresponding extended total has been omitted, then the extended total will be calculated from the unit price and the estimated quantity;
- (c) if an extended total has been given but the corresponding unit price has been omitted, then the unit price will be calculated from the extended total and the estimated quantity.

**4.4 Litigation**

In addition to any other provision of this RFP, the City may, in its absolute discretion, reject a Proposal if the Proponent, or any officer or director of the Proponent submitting the Proposal, is or has been engaged directly or indirectly in a legal action against the City, its elected or appointed officers, representatives or employees in relation to any matter, or if the City has initiated legal action against any officers or directors of the Proponent.

In determining whether or not to reject a Proposal under this section, the City will consider whether the litigation is likely to affect the Proponent's ability to work with the City, its consultants and representatives and whether the City's experience with the



Proponent indicates that there is a risk the City will incur increased staff and legal costs in the administration of the Contract if it is awarded to the Proponent.

#### **4.5 Additional Information**

The Evaluation Team may, at its discretion, request clarifications or additional information from a Proponent with respect to any Proposal, and the Evaluation Team may make such requests to only selected Proponents. The Evaluation Team may consider such clarifications or additional information in evaluating a Proposal.

#### **4.6 Interviews**

The Evaluation Team may, at its discretion, invite some or all of the Proponents to appear before the Evaluation Team to provide clarifications of their Proposals. In such event, the Evaluation Team will be entitled to consider the answers received in evaluating Proposals. Proponent management and technical personnel will be expected to participate in presentations, demonstrations and/or interviews, which will be made at no cost to the City.

All information and documents provided by the Proponents or gathered by the Evaluation Team during a presentation, demonstration or an interview may be considered by the Evaluation Team, which may revisit and re-evaluate the Proponent's Proposal or ranking on the basis of such information and documents.

#### **4.7 Negotiation of Contract and Award**

If the City selects a Preferred Proponent or Preferred Proponents, then it may:

- (a) enter into a Contract with the Preferred Proponent(s); or
- (b) enter into discussions with the Preferred Proponent(s) to attempt to finalize the terms of the Contract(s), including financial terms, and such discussions may include:
  - (1) clarification of any outstanding issues arising from the Preferred Proponent's Proposal;
  - (2) negotiation of amendments to the departures to the draft Contract, if any, proposed by the Preferred Proponent as set in Schedule C-1 to the Preferred Proponent's Proposal; and
  - (3) negotiation of amendments to the Preferred Proponent's price(s) as set out in Schedule C-5 to the Preferred Proponent's Proposal and/or scope of Services if:
    - (A) the Preferred Proponent's financial Proposal exceeds the City's approved budget, or
    - (B) the City reasonably concludes the Preferred Proponent's financial proposal includes a price(s) that is unbalanced, or
    - (C) a knowledgeable third party would judge that the Preferred Proponent's price(s) materially exceed a fair market price(s) for services similar to the Services offered by the Preferred Proponent as described in the Preferred Proponent's Proposal; or
- (c) if at any time the City reasonably forms the opinion that a mutually acceptable agreement is not likely to be reached within a reasonable time, give the Preferred Proponent(s) written notice to terminate discussions, in which event the City may

then either open discussions with another Proponent or terminate this RFP and retain or obtain the Services in some other manner.

## **5. GENERAL CONDITIONS**

### **5.1 No City Obligation**

This RFP is not a tender and does not commit the City in any way to select a Preferred Proponent, or to proceed to negotiations for a Contract, or to award any agreement, and the City reserves the complete right to at any time reject all Proposals, and to terminate this RFP process.

### **5.2 Proponent's Expenses**

Proponents are solely responsible for their own expenses in preparing, and submitting Proposals, and for any meetings, negotiations or discussions with the City or its representatives and consultants, relating to or arising from this RFP. The City and its representatives, agents, consultants and advisors will not be liable to any Proponent for any claims, whether for costs, expenses, losses or damages, or loss of anticipated profits, or for any other matter whatsoever, incurred by the Proponent in preparing and submitting a Proposal, or participating in negotiations for a Contract, or other activity related to or arising out of this RFP.

### **5.3 No Contract**

By submitting a Proposal and participating in the process as outlined in this RFP, Proponents expressly agree that no contract of any kind is formed under, or arises from, this RFP, prior to the signing of a formal written Contract.

### **5.4 Conflict of Interest**

A Proponent shall disclose in its Proposal any actual or potential conflicts of interest and existing business relationships it may have with the City, its elected or appointed officials or employees. The City may rely on such disclosure.

### **5.5 Solicitation of Council Members, City Staff and City Consultants**

Proponents and their agents will not contact any member of the City Council, City staff or City consultants with respect to this RFP, other than the City Representative named in section 2.5, at any time prior to the award of a contract or the cancellation of this RFP.

### **5.6 Confidentiality**

All submissions become the property of the City and will not be returned to the Proponent. All submissions will be held in confidence by the City unless otherwise required by law. Proponents should be aware the City is a "public body" defined by and subject to the *Freedom of Information and Protection of Privacy Act* of British Columbia.

### **5.7 Reservation of Rights**

The City reserves the right, in its sole and absolute discretion, to:

- (a) amend the scope of Services, modify, cancel or suspend the competitive selection process at any time for any reason;
- (b) accept or reject any Proposal, based on the Evaluation Criteria;
- (c) waive a defect or irregularity in a Proposals, and accept that Proposal;
- (d) reject or disqualify or not accept any or all Proposals, without any obligation compensation or reimbursement to any Proponent or any of its team members;
- (e) re-advertise for new Proposals, or enter into negotiations for the Services or for Services of a similar nature;
- (f) make any changes to the terms of the business opportunity described in this RFP;
- (g) negotiate any and all aspects of Proposals; and
- (h) extend, from time to time, and date, time period or deadline provided in this RFP, upon written notice to all Proponents.

## **5.8 Acceptance of Proposals**

Notwithstanding anything to the contrary contained in the RFP or any other document, material or communication:

- (a) The City will not necessarily accept the Proposal with the lowest Proposal Price, or any Proposal, and the City reserves the right to reject any and all Proposals at any time, or cancel the RFP process, without further explanation and to accept any Proposal the City considers to be in any way advantageous to it. The City's acceptance of any Proposal is contingent on having sufficient funding for the solution and a Contract with a Proponent. Proposals containing qualifications will be considered to be non-conforming Proposals in that they will fail to conform to the requirements of the RFP documents and on that basis they may be disqualified or rejected. Nevertheless, the City may waive any non-compliance with the requirements of the RFP documents, specifications or any conditions, including, without limitation, the timing of delivery of anything required by these RFP documents, and the City, at its discretion, may consider non-conforming Proposals and accept a non-conforming Proposal.
- (b) Where the City is of the view, in its sole discretion, that there is an ambiguity or other discrepancy which cannot be discerned or resolved from examining the contents of the Proposal, then whether or not such an ambiguity or discrepancy actually exists on the face of the Proposal, the City may, prior to Contract award, solicit clarification from the Proponent or accept clarification from the Proponent on any aspect of its Proposal. Such clarification may include the acceptance of any further documents or information which will then form part of the Proposal. The soliciting or accepting of such clarification (whether or not solicited) by the City will be without any duty or obligation on the City to advise any other Proponents or to allow them to vary their Proposal Prices as a result of the acceptance of clarification from any one or more Proponents and the City will have no liability to any other Proponent(s) as a result of such acceptance of clarification.
- (c) If the City considers that all Proposals are priced too high, it may reject them all.

- (d) The City, prior to awarding of any Contract, may negotiate with the Proponent presenting the lowest priced Proposal, or any Proponent, for changes in the solution, the materials, the specifications or any conditions, without having any duty or obligation to advise any other Proponents or to allow them to modify their Proposal, and the City will have no liability to any Proponent as a result of such negotiations or modifications.
- (e) The City and its representatives, agents, consultants and advisors will not be liable to any Proponent for any claims, whether for costs, expenses, losses, damages, or loss of anticipated profits, or for any other matter whatsoever, incurred by a Proponent in preparing and submitting a Proposal, or participating in negotiations for a final Contract, or other activity related to or arising out of this RFP, including in the event the City accepts a non-compliant Proposal or otherwise breaches the terms of this RFP.
- (f) A pre-award meeting may be conducted with the preferred Proponent prior to award to confirm project details and expectations of the City.
- (g) Proponents are solely responsible for their own expenses in preparing and submitting a Proposal, and for any meetings, negotiations or discussions with the City, or its representatives and consultants, relating to or arising from the RFP. The City will not be liable to any Proponent for any claims, whether for costs, expenses, losses or damages, or loss of anticipated profits, incurred by the Proponent in preparing and submitting a Proposal, or participating in negotiations for a contract, or other activity related to or arising out of this RFP.

## **SCHEDULE A - SCOPE OF SERVICES**

### **PROJECT TITLE: DEVELOPMENT OF AN INTELLIGENT TRANSPORTATION SYSTEMS STRATEGY**

#### **1. SCOPE OF SERVICES**

The City of Surrey (the “City”) is inviting Proponents to submit Proposals to develop an Intelligent Transportation Systems (ITS) Strategy.

#### **2. BACKGROUND ON DEVELOPMENT OF AN INTELLIGENT TRANSPORTATION SYSTEMS STRATEGY**

The City is one of the fastest growing Cities in the Lower Mainland BC and is expected to surpass the population in the City of Vancouver as the largest City in British Columbia by 2041. This growth will place significant pressure on the City’s transportation network. Maintaining a safe, responsive, efficient and multi-modal transportation system is critical to managing congestion, supporting sustainable economic development and enhancing livability of the City. Surrey is a leader in adopting ITS technologies and facilitating technological innovations as we recognize that it is a cost-effective way to better utilize our infrastructure and help address mobility needs and priorities.

The City’s Transportation Strategic Plan (TSP) identifies that Intelligent Transportation Systems (ITS) are one of the most powerful tools that could be implemented to achieve City’s mobility and road safety goals. Over the last several years, based on the ITS strategic goals and objectives identified in the City’s TSP, the City has invested significant amount of resources in implementing a series of innovative ITS projects including establishing a leading-edge Traffic Management Centre (TMC), Implementation of Advance Traffic Management and Traveller Information systems (ATIS) and piloting Adaptive Traffic Signal Control on one of the arterial corridors. These measures have contributed to the City’s road safety and mobility goals. However, rapid changes in the capabilities of technology, data collection and management, business models, and public expectations require long-term strategic planning to better manage ITS projects and programs in the future. The City needs an ITS Strategy that provides a vision with short and long-term guidance to prioritize investments to best achieve the City’s road safety and mobility goals.

The City’s existing 2008 TSP is the long-range policy document that is intended to guide decision making on the development and operation of transportation services, programs and facilities for Surrey residents. Due to significant emerging trends and changes to the policies and transportation network since 2008, the City is currently in the process of updating its TSP. These trends and changes include the Surrey’s Community Energy and Emissions Plan (2013) and the adoption of the City’s Vision Zero Surrey Safe Mobility Plan-2019.

As maintaining a safe, responsive, efficient and multi-modal transportation system is one of the key goals identified in the TSP and ITS plays a key role in achieving this goal, it is timely and critical to develop an ITS Strategy that aligns with goals and objective of the new TSP. Also, the City needs to be prepared to accommodate and benefit from transformative ITS changes currently taking place (such as Connected and Autonomous Vehicles (CAV), Data Mining and Travel Demand Management deployments). The new ITS Strategy will provide

the required long-term guidance and direction as to how the City needs to move forward in achieving City's road safety and mobility goals.

### **3. PROJECT GOALS AND OBJECTIVES**

The goal of the Strategy is to articulate and document a long-range vision that ITS can play in achieving a safe, responsive, efficient and multi-modal transportation system identified in the TSP. The Strategy will identify short, medium and long-range targets and an action plan set for 10 years. Though the ITS Strategy will be a stand-alone document, it will align and reinforce the new TSP and will be embedded within the new TSP. The new ITS Strategy will be a daily reference that guides decision making for all transportation stakeholders in general and, the Traffic Management Section in particular, for the planning and implementation of future ITS-related projects.

### **4. PROJECT STAKEHOLDERS**

The primary stakeholders in the development of this plan are key staff from the following Transportation Sections within the Transportation Division.

- Traffic Management
- Road Safety
- Parking and New Mobility
- Transportation Planning
- Transportation Infrastructure
- Rapid Transit
- Geographic Information Systems
- Information Technology

The consultation with the following internal departments and external organizations/groups will be required to receive input and/or identify potential opportunities for coordination and integration.

- Surrey Operations
- Fire Department
- RCMP
- TransLink
- Ministry of Transportation and Infrastructure (MoTI)
- ICBC
- Adjacent Municipalities (Delta, White Rock, Township of Langley, and City of Langley)
- Organizations representing/helping the disabled or disadvantaged
- Hub

The City Traffic Management Section has already had preliminary one-on-one meetings with primary stakeholders, internal departments and external organizations/groups identified above and compiled their comments/input. This information will be provided to the successful proponent at the start of this assignment. Additional follow up meetings will be required by the proponent as part of this assignment.

## 5. PROJECT SCOPE AND EFFORT

The scope of the project includes the following tasks:

1. Develop ITS vision and, goals and objectives
2. Review the inventory of the City's existing ITS infrastructure/systems (which will be provided by the City) and existing and planned ITS projects by other stakeholders (such as MOIT, TransLink and other municipalities) and create a summary document.
3. Research emerging technologies and trends including, Connected and Automated Vehicles (CAV), Internet of Things (IoT), Artificial Intelligence (AI) and Machine Learning, Communication technologies including Fibre Optics, Dedicated Short-Range Communication (DSRC) and 5G, Data Warehousing and Analytics, Crowd-Sourced traffic data, Big Data, Open Data and Predictive Technology and prepare a summary document of applicable technologies in Surrey's context.
4. Identify improvements/upgrades to the existing ITS infrastructure/systems based on the work completed in Task 3 along with concept level cost estimates
5. Develop a list of new projects/programs based on the work completed in Task 3 that could be implemented in Surrey's context along with concept level cost estimates
6. Identify opportunities for coordination and integration of the identified improvements/upgrades to the existing ITS infrastructure/systems and the new projects/programs with internal and external stakeholders such as MoTI, TransLink and other municipalities
7. Develop two separate prioritization criteria for the improvements/upgrades for the existing ITS infrastructure identified under Task 4 and for the proposed projects/programs identified under Task 5 and prioritize these projects based on best value for investments
8. Conduct Market research and develop selection criteria for available ITS products and applications that can be used for the selection of appropriate products/applications for the proposed upgrades to the existing ITS systems/infrastructure and recommended new projects/programs.
9. Develop outcome-based performance indicators for both the existing systems and proposed systems
10. Develop a deployment plan and a list of recommended short, medium and long-term projects/programs
11. Identify potential funding opportunities, partnerships and revenue models
12. Prepare draft and final reports

More detailed description of each task identified above is provided below.

### **Task 1: Develop ITS vision and, goals and objectives**

As identified in the Background section, due to significant emerging trends and changes to the policies and transportation network since 2008, the City is currently in the process of updating its TSP. These trends and changes include the Surrey's Community Energy and Emissions Plan (2013) and the adoption of the City's Vision Zero Surrey Safe Mobility Plan-2019. The development of TSP is scheduled to be substantially completed by the end of 2020. Based on the goals and objectives identified in the plans mentioned above, the successful proponent will develop an ITS vision and, goals and objectives statements for the City in collaboration with the Transportation Division.

**Deliverables:** Statement of ITS vision and, goals and objectives statement.

### **Task 2: Review the existing ITS systems/infrastructure**

Over the last several years, based on the ITS strategic goals and objectives identified in the City's TSP, the City has invested significant amount of resources in implementing series of innovative ITS projects including establishing a leading-edge Traffic Management Centre (TMC), Implementation of Advance Traffic Management (ATMS) and Traveller Information systems (ATIS) and piloting Adaptive Traffic Signal Control on one of the arterial corridors. These systems/projects have contributed to the City's road safety and mobility goals.

**Deliverables:** A summary document of the City's existing ITS infrastructure/systems and a list of existing and planned ITS projects by other stakeholders.

### **Task 3: Research emerging technologies and trends and develop a list of applicable technologies**

The ITS capabilities/technologies landscape continue to evolve at an unprecedented pace. These capabilities/technologies may offer more advanced and attractive operational capabilities not previously considered or available. Also, there are emerging business models/partnerships that could be utilized as potential funding sources for the implementation of new systems/infrastructure.

This task involves conducting thorough research/review on emerging technologies and trends including, Connected and Automated Vehicles (CAV), Internet of Things (IoT), Artificial Intelligence (AI) and Machine Learning, Communication systems including Fibre Optics, Dedicated Short-Range Communication (DSRC) and 5G, Data Warehousing and Analytics, Crowd-Sourced traffic data, Big Data, Open Data and Predictive Technology and identify applicable technologies in Surrey's context.

**Deliverables:** A list of technologies that can be applied in Surrey's context.

### **Task 4: Identify improvements/upgrades to the existing ITS infrastructure/systems**

As ITS is an ever-evolving field due to constant improvements in related services, technologies and implementations, the City needs to make sure that we capitalize on the significant investments already made in ITS assets is preserved through the identification and



implementation of upgrades/improvements that would help keep pace with these technological changes and ensure the required functionality of these systems.

The Consultant will review the inventory of existing ITS infrastructure which the City will provide and Identify the areas that need improvements in the short, medium and long-term based on current best practices and emerging technologies.

**Deliverables:** A list of short, medium and long-term improvements/upgrades that need to be implemented to keep pace with the technological changes with the associated concept level cost estimates.

#### **Task 5: Identify potential new ITS projects/programs in Surrey's context**

Based on the applicable technologies identified in Task 3, the Consultant will develop a list of recommended short, medium and long-term projects/programs that could be implemented in achieving Surrey's safety and mobility goals.

The areas should include, but not be limited to, the following:

- Traffic Management
  - Infrastructure-based traffic surveillance
  - Traffic incident management
  - Traffic information dissemination
  - Dynamic roadway warning
- Traffic Control
  - Traffic signal control
  - Connected vehicle traffic signal systems
  - Transit Signal Priority
- Traveller Information
  - Broadcast traveller information
  - Personalized traveller information
  - Dynamic route guidance
- Safe Mobility
  - Automated conflict analysis
  - Automated collision detection
  - Enhance safety for vulnerable road users
  - Curve speed warning
  - Queue warning
  - Intersection collision warning and avoidance
  - Emergency vehicle pre-emption
- Data collection and management
  - Data collection technologies including mobile and external sources
  - Data Warehousing
  - Data analytics and Business Intelligence
  - Pedestrian, cyclist and new mobility counts and detection
  - Performance monitoring
  - Predictive Analytics

- Mobility as a Service (MaaS)
  - Dynamic ride sharing
  - Multi-modal trip planning and payment
- Parking management
- New mobility
- Streetlight maintenance and management
- Mobility for disabled
- Detection and analytical tools for transportation infrastructure maintenance and management

In 2019, the City of Surrey and the City of Vancouver jointly submitted an application to the Infrastructure Canada Smart Cities Challenge which included a proposal for the implementation of two collision-free multi-modal transportation corridors (one in each City) to improve residents' quality of life by removing transportation safety risks, reducing greenhouse gas emissions, and increasing transportation efficiency. The proposed ITS applications/systems on Surrey's Corridor included: The implementation of an autonomous shuttle, installation of smart mobility infrastructure (such as adaptive traffic signal control, advanced traffic cameras, smart crossings, smart parking, interactive kiosks and traveller information), performing advanced data analytics and enhancing user experience. Please refer to the Schedule A-1 for more details about this project.

Although the Cities of Surrey and Vancouver were shortlisted for top 5 finalists, they were not successful in winning the \$50 million grand prize. However, the City of Surrey is interested in implementing a scaled back version of this project as a pilot, if it could be demonstrated that the costs outweigh the benefits of the project and there are other funding opportunities available. The Consultant will review the City of Surrey's Smart Cities Challenge application and provide recommendations on the proposed pilot and potential funding opportunities.

**Deliverables:** A list of short, medium and long-term new projects/programs along with the associated concept level cost estimates and a recommendation on the Surrey Smart Corridor pilot.

**Task 6: Identify opportunities for coordination and integration of upgrades/projects identified under tasks 4 and 5 with internal and external stakeholders**

There are numerous stakeholders to the Surrey ITS Strategy, each with their own mandates, objectives, operational procedures, data needs, specific problem areas and existing/planned ITS deployments. They are identified in the stakeholders section of this document. The City Traffic Management Section has already had preliminary one-on-one meetings with each of these stakeholders to discuss the Strategy and compiled their comments/input. This information will be provided to the Consultant at the start of this assignment. Additional follow up meetings will be required by the Consultant to complete this task.

The Consultant will review the list of the upgrades to the existing systems/infrastructure identified in Task 4 and the new projects/programs identified in Task 5 with internal and external stakeholders to identify potential opportunities for coordination and integration.

**Deliverables:** A list of upgrades to the existing systems/infrastructure and new projects/programs that can be coordinated/integrated with internal and external stakeholders.

### **Task 7: Develop prioritization criteria and prioritize the identified upgrades and projects**

The emerging technologies landscape for ITS continue to evolve at a rapid pace. Therefore, it is critical to identify upgrades/projects that will provide the greatest benefits to Surrey residents. The Consultant will develop two separate prioritization criteria for the existing systems and proposed new projects that can be used to achieve this goal.

**Deliverables:** A list of upgrades to the existing systems and recommended new projects prioritized based on the criteria developed.

### **Task 8: Conduct market research on available products and applications for upgrades and new systems/infrastructure**

The Consultant will conduct a thorough market research on available ITS products and applications and develop selection criteria along with vendor information that can be used for the selection of appropriate products/applications for the proposed upgrades to the existing systems identified in Task 4 and for the recommended new ITS projects/programs identified in Task 5.

**Deliverables:** A list of products/applications along with vendor information and selection criteria for each product/application.

### **Task 9: Develop performance indicators for the existing systems/infrastructure and proposed projects/programs**

Currently, the City uses only deployment-based indicators to measure the performance of existing ITS systems/infrastructure. However, it is critical that the City develop and use outcome-based performance indicators to measure and demonstrate the values of these systems to general public and the elected officials. The Consultant would develop a series of performance measures that could be used to measure and demonstrate the safety, mobility and environmental benefits and value that is being achieved through the existing ITS systems/infrastructure and that could be achieved through recommended future systems/infrastructure.

**Deliverables:** Two separate lists of outcome-based performance indicators for the existing and proposed ITS systems/infrastructure that could be used to measure and demonstrate the performance and value of the existing and proposed systems.

### **Task 10: Develop a deployment plan and timelines**

The Consultant will develop a deployment plan for the sort, medium and long-term projects/programs identified under task 4 and 5 with timelines.

**Deliverables:** A deployment plan for the identified upgrades and projects/programs with timelines.

### **Task 11: Identify funding opportunities**

The Consultant will identify potential funding opportunities that are available for the implementation of projects/programs identified under task 4. These would include federal, provincial and local initiatives, new business models and potential public-private partnerships.

**Deliverables:** A list of funding sources.

**Task 12: Develop and provide draft and final reports**

The Consultant will provide a draft and a Final Report that will include all the deliverables identified under tasks 1-11.

**Deliverables:** Draft and Final Report.

**6. PROJECT TIMELINES**

The Consultant is expected to deliver a comprehensive Final Report that will include the deliverable identified under each task in the **PROJECT SCOPE AND EFFORT** section above by **October 30, 2020**.

**7. PROJECT BUDGET**

The budget for the scope of work detailed within this RFP is **\$150,000** including Fees, Disbursements, and GST. Proponents should provide detailed fees relating to their proposed schedule of work. Proponents should clearly demonstrate the scope of work, including a summary of deliverables, they are prepared to offer within the project budget.

**SCHEDULE A-1**  
**SMART CITIES CHALLENGE APPLICATION**



smart cities challenge application

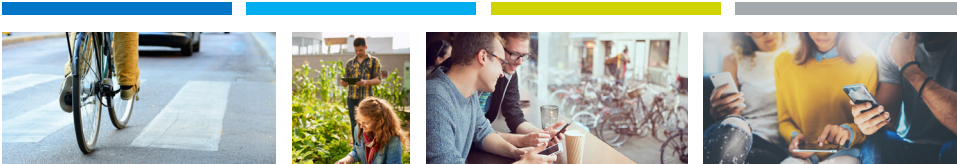
A COLLABORATIVE PROJECT OF THE CITY OF SURREY AND CITY OF VANCOUVER

# SMART IDEAS START HERE



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# Question 1:

Please provide information on the community that is submitting this application.

If this application is being submitted by a group of communities, add each community separately using the button. If this application is being submitted by a regional entity, please include the name of the regional entity with each individual community (e.g. City of Dunn/Smith Region). Do not include the regional entity as a separate, stand-alone community.

**Community:** City of Vancouver  
**Name of community:** City of Vancouver  
**Province or Territory:** British Columbia  
**Population based on:** 631,486  
**Indigenous community:** No



**Community:** City of Surrey  
**Name of community:** City of Surrey  
**Province or Territory:** British Columbia  
**Population based on:** 517,887  
**Indigenous community:** no



# Question 2:

Please select a prize category.

- \$50 million (all population sizes)
- \$10 million (population under 500,000 residents)
- \$5 million (population under 30,000 residents)

Prize category selected is \$50 million.

# Question 3:

Please define your Challenge Statement in a single sentence that guides your preliminary proposal. It should describe the outcome (or outcomes) you hope to achieve.

Surrey and Vancouver will implement Canada's first two collision-free multi-modal transportation corridors, leveraging autonomous vehicles and smart technologies to demonstrate the path to safer, healthier and more socially connected communities while reducing emissions, improving transportation efficiency and enhancing livability in the face of rapid growth and traffic congestion.  
#SmarterTogether





# Question 4:

Please describe the outcome (or outcomes) your proposal seeks to achieve by elaborating on your Challenge Statement.

## 4.1 – Introduction

Over the next three decades, more than one million new residents will make Metro Vancouver their home. The arrival of these new residents will contribute to the vibrancy and diversity of the region, but the rapid growth and densification will also add to mobility challenges related to safety and quality of life that already affect people living and working in Surrey, Vancouver, and the surrounding municipalities.

Through Surrey and Vancouver’s community-first joint approach to the Smart Cities Challenge, our residents told us that mobility is the focus area they deem most fitting for smart city solutions. It comes as no surprise; it is a part of almost every resident’s daily life, and one that impacts their safety, health, environment, access to opportunities, and prosperity.

Our cities have challenges regarding mobility. Vancouver is currently ranked as having the most severe congestion of all Canadian cities according to the TomTom Traffic Index, a leading measure of traffic movement.<sup>1</sup> Our cities also experience an aggregate of over 75,000 collisions among motorists, cyclists, and pedestrians each year, ranging in consequence from unfortunate inconvenience to tragic fatality.

Through a confluence of smart mobility technologies, Surrey and Vancouver will address mobility challenges by implementing Canada’s first two collision-free multi-modal corridors that leverage autonomous vehicles and smart mobility technology. As the two largest cities in British Columbia, representing over a million people combined, we are taking an ambitious step toward removing the safety risk that our residents must consider each time they move through their cities to get to work, enjoy their communities, or connect with family and friends.

We are also using the Smart Cities Challenge as an opportunity to attract leading smart mobility technology and autonomous vehicle companies to participate in our program. We will contribute to turning Canada into a global leader in autonomous vehicle technology.

While achieving zero collisions in our corridors within a five-year timeframe is our primary focus, we developed this proposal understanding that the benefits of our smart technology-enabled corridors extend beyond safety. Our implementation will have cascading benefits that improve the environment, transportation efficiency, health, and social connectedness while providing an innovative mobility model for cities across Canada.

<sup>1</sup> TomTom Traffic Index. 2016.



## (Question 4 Con't)

### 4.2 - Mobility Presents Major Problems for Metro Vancouver residents

To develop this proposal, Surrey and Vancouver reached out to residents to learn which smart city focus areas appealed to them most. Through an unprecedented joint engagement strategy that included street teams, social media surveys, and an online idea submission platform, we listened to ideas from people living and working in our communities. Of the over 250 smart city ideas proposed, nearly 40% were related to mobility, more than doubling the submissions related to the second-leading focus area.

The interest in mobility has provided us with the unique opportunity to improve a critical aspect of transportation: safety.

Consider the problem that collisions among motorists, cyclists, and pedestrians presents:

- 32,000 collisions occur in Surrey every year, resulting in an average of 20 fatalities, 150 serious injuries, and 12,800 minor injuries
- 45,000 collisions occur in Vancouver every year, resulting in an average of 15 fatalities, 300 serious injuries, and 10,000 minor injuries.
- traffic-related injuries are the second highest cause of serious injuries reported at Vancouver General Hospital, comprising nearly 20% of emergency room arrivals.

Looking more closely, collisions disproportionately affect the lives of particular groups:

- 30% of collision fatalities in Surrey and 40% in Vancouver are seniors, an important concern considering the region's aging population
- pedestrians comprise 42% of motor vehicle fatalities in Surrey, and 60% of transportation fatalities in Vancouver (despite being involved in only 2% of collisions)

The Smart Cities Challenge has galvanized our cities, and inspired us to bring the collision rate down to zero in two Surrey and Vancouver corridors.

### 4.3 - The Corridors

The Surrey corridor will be a 3.4-kilometer route that connects Surrey Memorial Hospital and other key services to a major transit hub. The corridor will leverage connectivity infrastructure in Surrey's Innovation Boulevard, and will be accessible to residents in adjoining low income and social housing, enhancing safety and access to key services for vulnerable people.

The Vancouver corridor will be a two-kilometer route that extends from Granville Island to Science World. Existing infrastructure within the corridor, including that related to the former Olympic Line streetcar, can be leveraged immediately. The corridor will connect social housing communities to essential rapid transit, urban centres, and hubs designed for seamless transfer to other modes of transportation.



## (Question 4 Con't)

### 4.4 - The Surrey-Vancouver Smart City Approach

Our smart city approach involves the implementation of an array of ambitious smart mobility solutions related to:

- autonomous shuttles
- smart mobility infrastructure
- advanced data and analytics
- enhanced user experience

**Autonomous shuttles:** Autonomous shuttles, operating within the corridors, will eliminate one of the leading contributors to collisions – human error. These autonomous shuttles will provide a pilot for a wider-scale deployment of the technology throughout the region, accelerating the advance of our entire cities toward a collision-free vision and the electrification of our transportation system. Additionally, these shuttles will reduce the negative effects of congestion – which has been shown to have significant impacts on quality of life – by moving people more efficiently.

**Smart mobility infrastructure projects:** Smart mobility infrastructure projects are the foundation for autonomous shuttles. These projects include sensors deployed in traffic signals, lighting, and other roadway infrastructure that generate data that can be incorporated into real-time signal adjustments that optimize safety and the free-flow movement of people. Combined with wireless connectivity infrastructure, these projects make up the groundwork that will enable autonomous vehicles to perceive and respond in real-time to movement both in their immediate vicinity and throughout the rest of the corridor.

**Advanced data and analytics projects:** Advanced data and analytics projects involving real-time monitoring, machine learning, and synthesis of data from disparate sources will inform corridor design, signaling, and autonomous vehicle movement to understand, anticipate, and avoid common collision scenarios. Mobility data visualization and a collaborative, secure, and open data platform will enable our cities, agencies, vendors, and citizens to access information generated in our corridors, turn it into valuable insight, and develop projects that optimize the operations of existing connected infrastructure.

**Enhanced user experience projects:** Enhanced user experience projects related to wayfinding, smart crossings, shared mobility options, and optimized trip planning will increase the seamlessness of our residents' journeys, and enhance the safety, accessibility, fairness, and equity of the transportation system. Enhanced user experience, enabled by better data, will also increase the attractiveness of cycling, walking, and transit as transportation choices and the satisfaction that residents experience using all transportation modes.



## 4.5 - Smart Mobility Means Safer, Greener, More Connected Communities

Well-designed mobility planning, infrastructure, and services are levers that lift our residents' quality of life in multiple ways. In pursuing our primary outcome of achieving zero collisions in our corridors, we will simultaneously achieve other positive mobility-related outcomes. These include:

- improved safety
- a greener environment
- increased availability of mobility options
- higher people-moving capacity
- increased accessibility
- enhanced travel experience

**Improved safety:** The most important outcome of our implementation is the elimination of transportation-related fatalities and serious injuries for all who move through our corridors, with solutions taking vulnerable users such as seniors, children, people with disabilities, pedestrians, and cyclists into account. We will achieve substantial safety improvements through technology projects that assist with enforcement, two-way real-time safety communication with travellers, and data analytics to enable enhanced infrastructure treatments and traffic control.

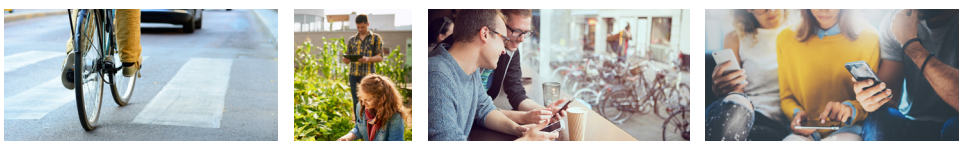
**A greener environment:** An autonomous electric vehicle shuttle combined with increased use of sustainable modes of transportation like cycling, walking and transit will translate into lower greenhouse gas emissions and a greener environment. The projects in the corridors, like our dynamic curbside parking initiative, will result in a net reduction of greenhouse gas emissions in the project area, which can be measured at a street and intersection scale using means such as Arizona State University's Hestia tool.<sup>2</sup>

**Increased availability of mobility options:** Projects will increase awareness and attractiveness of available mobility options, and provide dynamic and real-time information about when walking, cycling, transit, and ride sharing are the best transportation choices. Increased information will also improve the fairness and equity of the transportation system.

**Higher people-moving capacity:** The corridors lay the groundwork that will allow us to accommodate our cities' population growth without any corresponding contribution to congestion and its accompanying negative impacts on quality of life. This can be measured through vehicle throughput, time in traffic, and walking, cycling, and transit use counts. More efficient mobility also means more time residents get to reclaim and spend with family and friends, leading to more social and connected lives.

**Increased accessibility:** A corridor equipped with smart technologies can gather and share data that can be used to optimize trip planning specifically for seniors, people with disabilities, and members of other vulnerable populations, reducing barriers to their mobility. Widely deployed, these technologies can also reduce the need to own or travel by private vehicle, a result that can also dramatically reduce household transportation costs.

<sup>2</sup> [hestia.project.asu.edu](http://hestia.project.asu.edu)



## (Question 4 Con't)

**Enhanced travel experience:** Our corridors will enhance travel experience by improving the seamlessness of our residents' journeys, even when a single trip involves numerous transportation modes like cycling, walking, and vehicle use. Residents will also experience greater health benefits gained from increased physical activity like walking and cycling, and reduced mental stress from a reduction in frustration related to travel and congestion.

### 4.6 - Smart Mobility Solutions that Set the Standard for Canada

The mobility problems that Surrey and Vancouver experience exist in other cities as well. Our implementations have the potential to dramatically improve mobility safety, travel experience, and technological readiness in municipalities across Canada. Below is a list of problems common across Canada.

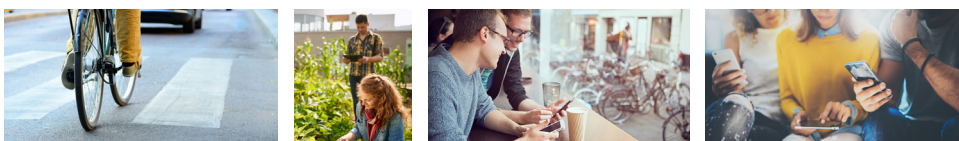
- Collisions remain a major problem for cities. While the number of collisions in Canada is thankfully trending incrementally downward, there are still well over 115,000 collisions each year that result in death or personal injury.<sup>3</sup> Our collision-free corridors will provide models for other cities, and represent a major step in the move from incremental transportation safety improvements to exponential progress.
- Canadian cities are experiencing rapid growth. City growth and its downsides for mobility, including the stress that growth puts on a city's mobility systems and resources, are not unique to Metro Vancouver. Statistics Canada reported population growth in 32 of 34 census metropolitan areas across the country 2016-2017, with 27 of those experiencing growth of over 1% year-over-year.<sup>4</sup> At a national level, population growth is projected to continue for decades.<sup>5</sup> Innovative mobility solutions will be required to avoid the negative quality of life impacts that come with this growth.
- Canada must close the connected mobility gap. According to a 2017 report by the Information and Communications Council, Canada lags other advanced global jurisdictions when it comes to autonomous vehicle development and deployment.<sup>6</sup> Surrey, Vancouver, and our communities can take the lead in closing this gap while improving our residents lives and providing the blueprint for autonomous vehicle deployment in Canada.

3 Transport Canada. Canadian Motor Vehicle Traffic Collision Statistics: 2015.

4 Statistics Canada. Canada's population estimates: Subprovincial areas, July 1, 2017.

5 Statistics Canada. Annual average growth rate, natural increase and migratory increase per intercensal period, Canada, 1851 to 2056.

6 ICTC. Autonomous Vehicles and the Future of Work in Canada. 2017.



## (Question 4 Con't)

### 4.7 - #SmarterTogether: A Partnership and Challenge Designed for Replicability

By partnering and deploying smart mobility technology in Surrey and Vancouver, addressing our overlapping and distinct needs, replicability is baked into the very design of our proposal. The Surrey-Vancouver team has used the Smart City Challenge as an opportunity to develop new and ambitious cooperation, procurement, and technology models that other Canadian cities can study and adopt as they begin to implement smart mobility solutions of their own in the coming years. These include:

- The Surrey-Vancouver partnership model

In December 2017, our two cities signed a memorandum of understanding to come together in a spirit of collaboration to learn how to address the common and distinct needs of our residents. Guided by the principles of transparency, outcome orientation, experimentation, diversity & inclusiveness, empowerment, and knowledge-sharing, we developed joint governance, communication, and decision-making models that have enabled us to combine our expertise, test technology in multiple urban contexts, and share each others' lessons and successes.

- The Call for Innovation procurement model

Our vendor community told us that the conventional procurement process is unnecessarily complex and that it results in slow purchasing cycles that inhibit technological adoption and innovation by government. We listened, and for the Smart Cities Challenge, we designed the Call for Innovation. Based on the traditional Request for Expression of Interest, the Call for Innovation is a new, flexible procurement instrument that enables continuous dialogue and iteration by industry vendors and city procurement offices. The Call for Innovation is an enduring legacy of the Smart Cities Challenge, and Surrey and Vancouver will continue to use this procurement innovation for future technology acquisition.

- Technical architecture, implementation design, and municipal regulatory models

Our corridor implementations will provide models of component deployment, interoperability opportunities, centralized mobility data management, and open data architecture that can be replicated in other corridors throughout our region and in other cities. Our corridors will incorporate leading cybersecurity and privacy measures at every stage of development, providing a blueprint of best practices for collision-reducing smart city technology initiatives across Canada.

- Operational demonstrations in areas of differing density

Our two corridors will demonstrate how smart city mobility infrastructure and design can best be implemented in an area of urban density and an area transitioning from suburban to urban density, providing two models for other regions to replicate.



## (Question 4 Con't)

- A new Canadian Mobility Index

The transformation of our corridors into data-rich environments provides our cities with the opportunity to develop a measurement tool that accurately connects quality of life to mobility-related factors such as congestion, seamlessness of travel, accessibility, and fairness of the transportation system. With our ability to gather and analyze detailed mobility data from our corridors on a common platform, we will develop a Canadian Mobility Index, a person-centric measure that reflects the connection between the movement of people and their experiences. Our Smart Cities Challenge implementation will serve as a catalyst to move the transportation industry forward in the new era of data-rich public spaces.

By creating Canada's first two collision-free multi-modal transportation corridors that leverage autonomous vehicles and smart technologies, Surrey and Vancouver have the opportunity to create safer, greener cities for our residents and provide a blueprint for other Canadian communities to do the same for theirs.

## Question 5:

Describe how your community residents have shaped your Challenge Statement.

### 5.1 – Introduction

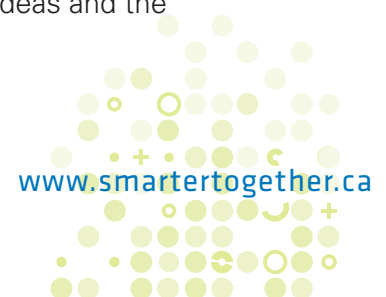
Our extensive, inclusive, and community-first engagement strategy over the past eight months was central to the development of our Challenge Statement. Using the most innovative public engagement tools available and a novel procurement instrument of our own design, we engaged in authentic and ongoing online and in-person conversations with our residents at every step of the proposal development process. Our Challenge Statement genuinely reflects what our residents say matters most to them, and our process of shaping it aligns with our conviction that we are smarter together.

We carried out our multi-stakeholder engagement plan in two phases:

- Community engagement and education, and
- Consolidation and call for ideas

### 5.2 - Community Engagement and Education: Kicking Off Conversations & Collaboration

Through multiple digital and in-person channels, we connected with our residents to introduce the Smart City Challenge and listen to what they said about which focus areas mattered most. We asked our residents for their most ambitious ideas, and published them on our platforms to stimulate further idea generation and begin public conversations about smart city ideas and the Smart City Challenge.



## (Question 5 Con't)

We wanted our residents to have the opportunity to be heard and to shape their communities. We advertised this opportunity through:

- ongoing press engagement with municipal, provincial, and national media
- paid social media advertising through Facebook and Twitter
- nine outdoor digital display ads in high traffic areas
- high visibility signage in busy pedestrian areas including libraries, both city hall entrances, and recreation facilities
- the #SmarterTogether website

In an unprecedented joint engagement strategy, our two cities worked together to reach out to a broad range of residents with different interests, lifestyles, and concerns. We did this through:

- Multi-lingual street teams in busy Surrey and Vancouver locations: Over the course of multiple days in Surrey and Vancouver, #SmarterTogether staff engaged residents in the region's four most commonly-spoken languages — Cantonese, Mandarin, Punjabi, and English. The street teams reached students, working people, people with disabilities, families, seniors, and residents who may not have access to digital tools to discover which focus areas and smart city solutions resonated with them.
- An interactive citizen idea platform: We created a platform on the #SmarterTogether website to which our residents could submit smart city ideas under any focus area. These ideas were posted publicly on the platform, and anyone could interact with them through upvoting, downvoting, and comments.
- A Civic Tech YVR community idea generation session: We co-hosted an idea generation session with the Civic Tech YVR meetup group, a community of nearly 250 diverse young graduates and tech professionals with an interest in technology projects that impact civic issues.
- #SmarterTogether social media conversations: We engaged residents on Facebook, Twitter, Instagram, and LinkedIn using #SmarterTogether to generate conversations about focus areas. We also used these channels to distribute promotional YouTube videos that explain the challenge and inform our residents about how they can play an active role in developing their cities' futures.
- Surveys and messages through Surrey's CitySpeaks and Talk Vancouver platforms: Both cities have communities of highly engaged residents that have registered to online survey and engagement platforms in order to regularly participate in shaping municipal policy. We sent surveys to these communities to inquire about which focus areas matter, which groups and communities should benefit most from smart city technology, and the degree of innovation they wanted to see in their cities.

Pop up polls: We posted quick surveys on our website, through our social media channels, and at survey stations in our communities to ask residents a single question: What focus areas should we dedicate our smart city efforts toward?





## (Question 5 Con't)

- An External Advisory Panel of regional thought leaders: We interviewed thirteen of the most influential leaders in our region to gain diverse perspectives on our communities' most pressing needs and the smart city solutions that could address them.

This phase of our engagement garnered:

- over 5,000 unique visitors to the citizen idea platform
- over 2,600 votes cast for ideas submitted to the #SmarterTogether website
- over 2,200 survey responses
- over 1,000 website pop-up poll submissions
- over 4,100 comments, shares, retweets, replies, and likes
- over 3,400 engaged users and 136,000 people reached
- a total of over 149,000 interactions across all channels

The engagement educated our communities about smart cities and the Smart City Challenge, gathered extensive unfiltered information about our residents' priorities, and prepared a broad cross-section of our residents to imagine ambitious, achievable, and relevant ideas that they could submit in the following phase of our engagement plan.

### 5.3 - Consolidation and Call for Ideas: Refining the Challenge Statement

Analysis of survey responses, proposed ideas, and conversations between our teams and residents narrowed the conversation to four focus areas: Mobility, Safety & Security, Empowerment & Inclusion, and Environmental Quality.

To explore these four focus areas, we:

- Re-engaged our residents: Through social media and our citizen idea platform, we solicited smart city ideas related only to these top four focus areas.
- Asked vendors for projects via our Call for Innovation: We announced to vendors that they could submit project ideas for review through our flexible Call for Innovation, a procurement instrument that would allow them to adjust their submissions as our focus area became clearer.
- Convened an unprecedented Surrey-Vancouver cross-department internal working group: Comprised of over 70 senior staff from across a multitude of Surrey and Vancouver municipal departments – including engineering, infrastructure, public safety, sustainability, the RCMP, and others – our diverse internal working group built upon the discussions and feedback, and drew from their decades of institutional knowledge to brainstorm potential problem areas and project ideas.
- Conducted open industry sessions: Supported by the team at the Greater Vancouver Board of Trade, we hosted multiple industry update sessions and workshops to create opportunities for feedback and co-creation.



## (Question 5 Con't)

These efforts garnered over 250 smart city ideas from residents, over 200 vendor proposals, and thousands of online interactions.

Nearly 40% of the ideas submitted by residents and 50% of those submitted by vendors pertained to mobility. Through our conversations with residents, community associations, staff, and industry, we heard that “mobility is the engine of inclusivity” and “a driver for providing opportunity to everyone, everywhere.” We heard definitively that by enabling people to move around the city more easily, we could foster greener, healthier, and more connected communities.

Mobility also featured prominently among resident ideas and business proposals, with one resident submitting a direct call to action: “Be the first in Canada to enable autonomous vehicles.” This response inspired our Smart Cities Challenge team to approach and work with domain experts and a panel of local thought leaders to identify and craft an ambitious mobility-related proposal with a meaningful, measurable outcome.

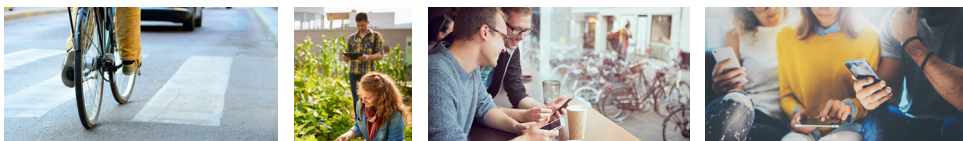
We learned that safety is a fundamental concern for our residents. This was informed in part by work done by Vancouver’s Active Transportation Policy Council a civic committee that advises City Council on strategic priorities related to active transportation. The Council made increased safety their top priority and recommendation at their January 2018 meeting. This theme also aligns with our two cities’ common ambition to achieve zero fatalities in our respective transportation systems. Lastly, we learned that addressing problems related to safety in mobility can have benefits that cascade into positive effects on the environment, health, access to opportunities, and prosperity.

Bringing mobility and safety together, we decided to use autonomous vehicles and smart technologies to ambitiously address the problem of collisions through the development of our collision-free multi-modal transportation corridors.

### 5.4 - Continuing the Conversation

In the development of the final proposal and implementation of our projects, we will keep our community engagement channels open and active, continuously updating our #SmarterTogether website and social media. We will also:

- hold kickoff events for the creation of the new proposal and implementation of projects
- consult vendors and community tech groups, including Civic Tech YVR, on project implementation and open standards architecture
- engage business associations and universities to host events to update vendors and solicit feedback
- continue to encourage resident and vendor submissions to our citizen idea platform and Call for Innovation
- consult a regional Scalability & Adoption Advisory Panel, consisting of surrounding municipalities, to discuss replicability and transferability of projects so that they can leverage our proposal to address the needs in their communities



## (Question 5 Con't)

- engage Data Science for Social Good, the SFU Big Data Lab, and other partners to help inform our API strategy and spread the invitation to engage city data to their networks of talented technologists

Engaging our cities' residents in a continuous community-first process provides our team with the confidence that our Challenge Statement, outcomes, and implementation will meet the needs and aspirations of the people who live and work in our region.

## Question 6:

Please describe your preliminary proposal and its activities or projects.

### 6.1 – Introduction

Surrey and Vancouver's smart mobility technology projects will transform the design, management, and use of the transportation system within our two collision-free corridors, enhancing safety, reducing greenhouse gas emissions, increasing accessibility, and enhancing travel experience for our residents.

Through these ambitious projects, Surrey and Vancouver will lead Canada in the era of smart mobility technology. These projects are being implemented in two corridor locations with different characteristics, demonstrating our projects' inherent replicability. Their technical designs and fully-tested implementation toolkits will provide other cities with the blueprint to implement collision-free multi-modal transportation corridors with autonomous vehicles and smart technologies for residents moving through their own communities.

### 6.2 - Existing Corridors are Primed for Smart City Transformation

Surrey and Vancouver will transform existing, high-activity corridors that are primed for smart mobility technology implementations. It is within these central corridors that our cities will be able to deliver the greatest benefit to our residents.

The City of Surrey's corridor is a 3.4-kilometer route located on the periphery of Surrey's city centre. The corridor connects Surrey Memorial Hospital and the Jim Pattison Outpatient Care and Surgery Centre to a terminus SkyTrain station that services over 19,000 passengers each day. The route connects to suburban roads and a rapidly developing downtown core arterial road that carries more than 40,000 vehicles per day. The corridor will leverage the fiber connectivity infrastructure already in place and used by the health, business, higher education, and government organizations that comprise Surrey's Innovation Boulevard.

The City of Vancouver's corridor is a two-kilometer route between Granville Island and TELUS World of Science through which 35,000 SkyTrain passengers pass and over 37,000 vehicles move each day. The corridor includes an emerging innovation district in the South False Creek neighbourhood, and connects several forms of community housing, popular tourist



(Question 6 Con't)

destinations, and two community centres. It is the site of the former Olympic Line streetcar, for which feasibility assessments have already been conducted, providing ready-made infrastructure for the transformation.

6.3 -The Projects Comprising our Collision-Free Corridors

There are many factors that contribute to collisions: human error, inclement weather, unadaptable signal timing, and constrained sight lines. An array of well-planned smart city solutions can address these factors. By combining these solutions in two corridors, we aim to reduce collisions to zero within a five-year timeframe.

Our smart city solutions fall into four categories:

- autonomous shuttles
- smart mobility infrastructure
- advanced data and analytics
- enhanced user experience

**Autonomous shuttles:**

Autonomous shuttles play a key role in enhancing safety within the corridors. Equipped with sensors and onboard intelligence, the autonomous shuttles communicate with traffic infrastructure and other autonomous vehicles to optimize for safe movement. Piloting these vehicles in two separate corridors of differing density will accelerate our ability to effectively deploy this technology throughout the region, and enable a broad range of Canadian cities to replicate our results. Projects related directly to the shuttles include:

- autonomous vehicle electric charging infrastructure installation
- autonomous vehicle connectivity infrastructure deployment, including Dedicated Short Range Communications modules that enable inter-vehicle information sharing and Signal Phase and Timing applications that enable vehicles to communicate with sensors in traffic infrastructure such as street lights and traffic signal controllers
- development of an autonomous shuttle regulatory framework and set of standards

**Smart mobility infrastructure:**

These projects will transform public infrastructure into intelligent resources that sense activity and environmental conditions in the corridor, and transmit that information to autonomous vehicles and other smart devices that can make real-time adjustments. As they can monitor and communicate information about the entire corridor at once, these projects will reduce inefficient signal timing and human error judging speeds and distances. Projects related to smart mobility infrastructure include:

- adaptive traffic signals that gather real-time weather conditions and traffic information, and adjust operations using predictive optimization techniques to accommodate transit signal priority



## (Question 6 Con't)

- connected streetlights that monitor movement and environmental conditions, and adjust lighting to enhance visibility
- parking sensors that communicate parking availability to users in real time, and inform dynamic curbside parking management to better facilitate curb usage
- smart pedestrian crossings that provide longer walk times for specific users, and adapt to changing demands and conditions
- retractable bollards that adjust to open traffic flow or protect public spaces and routes as appropriate
- infrastructure that supports automated enforcement of traffic violations

### **Advanced data and analytics:**

These projects bring data from disparate sources together at a centralized location, organize it, and provide insight on specific collision scenarios and ways to avoid them. Projects related to data and analytics include:

- a common data and information platform that aggregates all corridor data and is accessible to both cities
- an open and secure analytics engine that will enhance our ability to visualize and manage our corridors
- an open and secure data sharing network that is accessible to vendors and the public
- the Canadian Mobility Index (CMI), a project enabled by our access to extensive corridor data, that addresses shortcomings in traditional transportation measurement techniques by accurately connecting mobility-related factors such as congestion, seamlessness of travel, transportation system accessibility to effects on quality of life
- real-time advisories of safety issues and corridor conditions

### **Enhanced user experience:**

These projects are the services and applications that provide new ways for people to engage and navigate the corridors. This is particularly important for our aging population, as seniors are severely and disproportionately affected by collisions. Enhanced user experience projects will also improve the transportation experience for people seeking to reduce dependency on personal vehicles, people with visual impairments, and members of other vulnerable groups. Projects related to user experience include:

- a suite of accessible wayfinding applications and connectivity infrastructure at designated locations
- next generation bike share
- a multi-modal navigation application (via cell phone or digital kiosk) that informs travelers of the greenest (i.e. the route that produces the least amount of CO2 emissions), fastest, or cheapest route to their destination
- smart, connected road signs and lighting that tell drivers and cyclists ideal travel speeds and routing for improved safety and mobility



## 6.4 - A Staged Transformation

Every project requires a foundation. Smart infrastructure must be integrated with current city infrastructure, connectivity must be prepared, and initial corridor data gathered and analyzed before autonomous vehicles begin moving through the space. To test the technology and evaluate the safety and integration of autonomous vehicles and other projects, the development of the corridors will progress through three phases:

- Foundation: involves the installation of the sensors and connectivity hardware
- Integration: involves the enablement of devices to read and use data gathered by other devices in a corridor using a standard format
- Application: involves complete services, content delivery, and programmed responses that inform and change the corridor in response to real-time conditions
- Measurement: involves monitoring results and benefits that enable continuous improvement

## 6.5 - Interoperable and Open

Interoperability among devices and sensors is necessary to create a functioning corridor that eliminates collisions. Interoperable systems enable all modes of transportation to interact with infrastructure and communicate conditions and hazards in the corridors. Over the next several months, we will work with industry to fully identify the technical requirements, essential components, and appropriate architecture for interoperability.

While we plan and develop of our corridors, we will stipulate in our Call for Innovation (CFI) procurement instrument that interoperability must be accounted for in all submissions.

With our 'open data-by-default' policy, we will also make data accessible, while ensuring that exposure to cybersecurity risk is limited. Corridor data, available through APIs, will provide opportunities for application developers and innovators to create new products and services that can leverage the technology we deploy.

## 6.6 - Replicability by Design

The corridors in Surrey and Vancouver each have a mix of common and distinct mobility dynamics. Despite differences, our two cities are using the same proposal to achieve a zero-collision outcome, demonstrating the proposal's inherent replicability. Furthermore, most of the connected technology that we are deploying involve sensor and devices in common existing city infrastructure that all mid-size and large cities already possess.

Other Canadian cities can leverage our lessons, pinpoint their own areas where collisions are a problem, and follow our project roadmap, one that reflects two different city contexts, to install smart mobility technology where it matters most for their own residents.



# Question 7:

Please describe the ways in which your preliminary proposal supports your community's medium and long-term goals, strategies, and plans.

## 7.1 - Introduction

Our #SmarterTogether proposal aligns with transformational digital and smart city strategies that include progressive and ambitious transportation and community goals.

## 7.2 - Vision Zero Safety Strategy

Vision Zero asserts that any number of deaths is too high a price to pay for the benefits of mobility. Our two collision-free corridors will enhance transportation safety in alignment with our cities' mutual goal of zero traffic-related fatalities, as articulated in Vancouver's Transportation 2040 Plan and Surrey's Vision Zero Safe Mobility Plan (June 2018).

Our corridors will also result in lower greenhouse gas emissions, aligning with Vancouver's Greenest City 2020 Action Plan, an initiative to become the world's greenest city, Vancouver's Healthy City Strategy, and Surrey's Sustainability Charter, a 40-year vision to become a thriving, green, inclusive city.

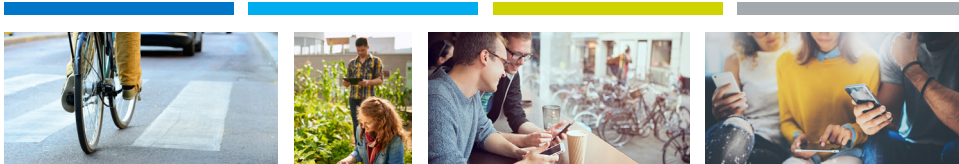
## 7.3 - Foundational Digital and Smart City Strategies

Vancouver's Digital Strategy, initiated in 2013 and extending to 2022 and beyond, enhances digital connections among all city stakeholders and advances the city's internal and external digital maturity through projects in connectivity, access to data, and interoperability. These projects increase economic opportunities, improve services, and lay the foundation to transform Vancouver into a smart city.

The pillars of the Digital Strategy are:

- Engagement & access: enabling citizens and businesses to easily interact with the city through digital channels
- Infrastructure & assets: creating a robust digital infrastructure built through strategic investments and partnerships
- Digital economy: making Vancouver a global leader in supporting innovation and the digital ecosystem
- Organizational digital maturity: unifying the city's digital and technology agendas, and preparing our internal agencies for service delivery requiring cross-functional collaboration enabled by data

The first stage of the strategy was foundational, focusing on digital maturity and early business transformation. The second stage, which began in 2017, involves technology transformation that focuses on increasing connectivity and gathering data. The third stage, beginning in 2019, focuses on interoperability, setting the stage for city services and initiatives that are informed by data.



## (Question 7 Con't)

The Smart Surrey Strategy was created to foster sustainable economic development and a high quality of life by leveraging innovation and technological advancements in its decision making, strategies, and investment. Through the Strategy, Surrey has improved services and increased the effectiveness of city resources amid rapid growth and increasing demands.

The Smart Surrey Strategy's four pillars are:

- Social engagement & connectivity: enabling residents to actively participate in decision making
- Service delivery innovation: providing residents with digital services and digital channels to the city government
- Economic growth: supporting the city's innovation ecosystem, knowledge workforce, and economic diversity
- Smart city infrastructure: preparing the city for broadband and smart buildings, transportation, and utility management

The Strategy includes initiatives related to smart transportation, open data, and connectivity to meet the city's increasing transportation demands. A focus on leading technologies that monitor and manage traffic while leveraging and analyzing data from new sources inform the community and city decisions.

These strategies have given our cities deep practical knowledge related to implementing and managing smart city infrastructure and high quantities of real-time data.

[Additional Strategies - Links to files larger than 5 MB.pdf \(320.48kb\)](#)

[City of Vancouver Transportation 2040 Plan as adopted by Council \(reduced\).pdf \(2.75mb\)](#)

[City of Surrey Smart Surrey Strategy March 2015.pdf \(3.84mb\)](#)

[City of Surrey SustainabilityCharter.pdf \(3.16mb\)](#)

[City of Vancouver Digital Journey Update Dec2017.pdf \(3.35mb\)](#)

[City of Vancouver Digital Strategy.pdf \(1.19mb\)](#)

[City of Vancouver Greenest City Action Plan Implementation Update 2017.pdf \(1.99mb\)](#)





# Question 8:

Please describe your community's readiness and ability to successfully implement your proposal.

## 8.1 - Introduction

Surrey and Vancouver have track records of successfully designing and completing complex transportation and smart city projects that require the cooperation of multiple departments and stakeholders. These include:

Surrey's Traffic Management Centre:

Surrey has implemented, expanded, and enhanced its Traffic Management Centre (TMC) as part of the Smart Surrey Strategy. Beyond its regular operations, the TMC has become a living lab for Intelligent Transportation Systems, with rich data being gathered in real time from over 400 traffic cameras, permanent traffic counters, an adaptive traffic signal control system, and the first operating pedestrian thermal sensors in Canada. The development and ongoing operation of the multi-million-dollar TMC requires collaboration between many city departments, including Engineering, IT, Finance, and Legal, and is fully connected with fibre to the provincial TMC.

Vancouver's Olympic Line:

In anticipation of the increased demand that the 2010 Winter Olympics promised for Vancouver's transportation infrastructure, the City built the 1.8-kilometer Olympic Line, which ran two streetcars between Granville Island and the Olympic Village SkyTrain station. The planning, construction, and operation of the line involved project management coordination between the City of Vancouver, Bombardier, and numerous private design consultants, trackwork & power systems companies, and vehicle operations and management contractors. The Olympic Line streetcars successfully moved an average of 9,200 people per day during the 2010 Olympics, and won an American Public Transit Association award and Canadian Urban Transit Association award for Exceptional Performance/Outstanding Achievement.

## 8.2 - Both Cities are Experienced in Cross-Department Project Management

Surrey's Design & Construction division, which designs and delivers all major infrastructure engineering projects (\$100-150 million per year), regularly partners with Corporate Service's Project Management Office to deliver technology projects, such as the Traffic Management Centre.

Vancouver's Engineering Project Management Office (PMO) works with over 30 engineering branches, comprising nearly 2,000 staff supported by external partners and contractors, to plan and deliver complex infrastructure projects (approximately \$220 million per year). The PMO liaises closely with the City's Technology Services PMO on projects relating to operating technology, cybersecurity, data, connectivity, or citizen services.



## (Question 8 Con't)

### 8.3 - Existing Smart City Strategies Have Created Horizontal Organizations

Surrey and Vancouver are leaders regarding smart city strategies. Surrey's Smart Surrey strategy earned a nomination for an internationally-recognized Intelligent Community of the Year award, and Vancouver's Digital Strategy was the first of its kind in Canada. These initiatives have led to mature organizations capable of engaging in large-scale smart city project implementations that involve multiple stakeholders and departments.

### 8.4 - Organizing our Cities to be #SmarterTogether

Our Smart Cities Challenge team has brought two entire cities together, each with their own cultures, processes, and practices. We have integrated our staff and resources in an unprecedented inter-city collaboration that has enabled us to benefit from each's expertise and move quickly in harmony.

We have done this through:

- The Memorandum of Understanding (MoU)

The MoU, signed by Surrey and Vancouver City Managers in December 2017, provides the framework for collaboration that enables us to leverage our diversity and achieve our shared smart city vision. It articulates the collaboration principles, decision-making framework, and roles and responsibilities, laying the foundation for a shared culture. During implementation, the MoU will provide the basis for an ongoing model to manage projects and provide a platform for partnerships between our cities and the broader community.

- #SmarterTogether brand and culture

Our cities have been on a journey together involving rich, ongoing conversations and multiple joint workshops that have led to strong bonds that will extend beyond the Smart City Challenge. Our cities entered the challenge with distinct cultures and coalesced into a harmonious unit – from Mayors to department staff – to develop a common vision and begin taking steps toward its realization.

- A joint governance model

We have developed a joint governance model that encompasses everyone from the Surrey and Vancouver City Managers to individual staff in each city's relevant agencies. This model has guided the development of this proposal, and helped to ensure that initiatives have collective support and address the specific needs of residents in each city.



## (Question 8 Con't)

### 8.5 - UBC-Supercluster Partnership

The University of British Columbia operates like a small city. The university manages its own utilities, construction, roads, buildings, and operations, and has established a 'Campus Living Laboratory' to develop and test new technologies that are fully integrated into campus infrastructure.

UBC has offered to use the campus as a platform to develop and test new infrastructure projects, based on expanded monitoring and data collection, large scale data aggregation, advanced transportation and energy systems design, and the application of artificial intelligence to city management. As a potential partner in our Smart City Challenge, UBC will provide a proving ground for our projects. UBC's leadership and financial commitment related to the Digital Technology Supercluster — to the tune of \$10 million over five years — will create further leverage as the University can align its emerging commercial projects and partnerships with our proposal.

### 8.6 - SFU Partnership

Simon Fraser University (SFU) has been described as a university where innovative education, cutting-edge research, and community outreach intersect. With campuses in both cities, and global recognition in applied sciences with world renown programs in Mechatronics, Sustainable Engineering, Advanced Data and Analytics, SFU has offered to partner with us on designing, implementing, and advancing our data, analytics, and cyber infrastructure goals.

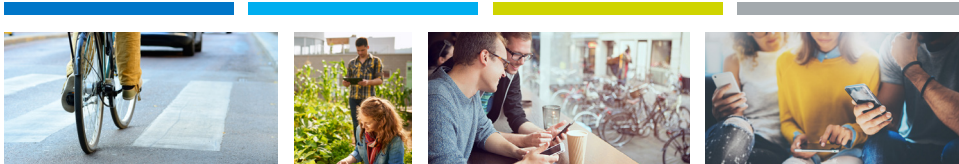
### 8.7 - Proactive Measures to Minimize Organizational Risks

- Capacity

Transportation departments in both cities are committed to immense infrastructure projects: the Surrey Light Rail project and the Millennium Line Skytrain extension. Our joint team will oversee the implementation of our collision-free autonomous and connected vehicle corridors and ensure projects have the required balance of city staff, implementation partners, and outside professional support.

- Regulation

Absent a provincial regulatory framework regarding autonomous vehicles, our team will study best practices in public policy and work with provincial policy makers to establish a preliminary framework. If the framework remains undeveloped, we will leverage an existing University of British Columbia autonomous vehicle testing ground as we continue to work with the Province.



# Question 9:

Describe your plan for using the \$250,000 grant, should you be selected as a finalist. Provide a high-level breakdown of spending categories and an accompanying rationale.

## 9.1 - Introduction

The \$250,000 Smart Cities Challenge grant will be allocated primarily to three categories, for which we will also leverage existing resources, infrastructure, and partnerships. The three categories are:

- project management
- community and partner engagement
- knowledge transfer

## 9.2 - Project Management

We will leverage city office space, support services, and City of Surrey and City of Vancouver staff. The grant will fund:

- A Smart Cities Program Director [\$50,000]

To address internal staffing capacity gaps, we will hire a dedicated full-time Program Director for five months to manage all efforts contributing to the full application.

- Professional services [\$125,000]

We will employ professional services providers to engage our External Advisory Panel, study global autonomous vehicle and smart city corridor best practices, facilitate industry and community workshops, and support the delivery of our final application and supporting multi-media collateral.

## 9.3 - Community and Partner Engagement

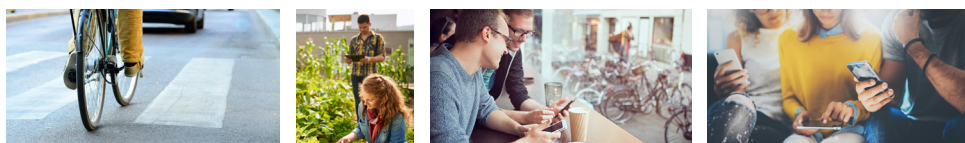
We will leverage a budget for an existing City of Vancouver hackathon and existing support services. The grant will fund:

- Expansion of the safety hackathon [\$10,000]

We will leverage and expand a planned September safety hackathon to invite the community to innovate and co-create mobility-related smart city solutions.

- A 'Design for All' workshop [\$25,000]

We will host a workshop to gather input from the community on how to incorporate their perspectives into our final application. Participants will include individuals from advocacy groups, professional associations, academia, and public sector agencies, among other organizations.



(Question 9 Con't)

## 9.4 - Knowledge Transfer

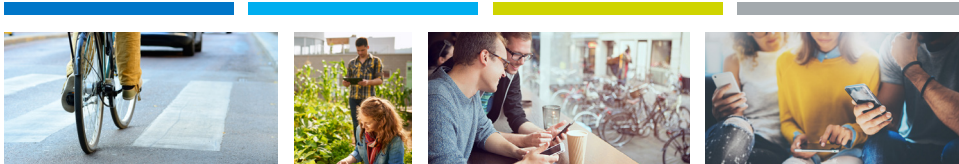
The grant will fund:

- A Data Advisory Council [\$20,000]

We will convene remote meetings of mobility analytics researchers from across Canada to create the Canadian Mobility Index, an innovative person-centric transportation metric that accurately reflects the inherent connection between the movement of people and their quality of life.

- Library of Learning [\$20,000]

We will initiate a resource centre to store outputs from our workshops and academic engagements. The library will include a professionally produced video detailing the Surrey-Vancouver concept and proposal, and will be open to the public.



# Question 10:

Describe the partners that are or will be involved in your proposal. Where partners are not yet determined, describe the process for selecting them.

## 10.1 – Introduction

Through the Smart Cities Challenge, Surrey and Vancouver have strengthened existing partnerships and built new ones with organizations interested in improving the quality of life of our residents.

Through our engagement strategy, our partners challenged us to be bold and provided us with feedback that was crucial to shaping this proposal. Many of these partners are prepared to take the next step with us, and contribute in-kind and financial resources to see our plan come to fruition.

## 10.2 - Partners and Supporters

Letters of support for our proposal and/or commitments to our partnership have been provided by:

- TransLink, Metro Vancouver’s regional transportation authority
- University of British Columbia (UBC)
- Simon Fraser University (SFU)
- Our External Advisory Panel, with letters of support collected from:
  - Deloitte
  - United Way of the Lower Mainland
  - Surrey Schools
  - Fraser Health Authority
  - Port of Vancouver
  - BC Tech Association
  - Greater Vancouver Board of Trade
  - BC Institute of Technology
  - Canada’s Digital Technology Supercluster Consortium
  - Vancouver Airport Authority
- Canadian Urban Transit Research and Innovation Consortium (CUTRIC)
- Insurance Corporation of British Columbia (ICBC)
- Honourable Bruce Ralston, Minister of Jobs, Trade and Technology, Province of British Columbia
- National Association of City Transportation Officials (NACTO)

We have also engaged the neighbouring municipality of Port Moody, B.C., to act as an advisor and provide feedback on the applicability, scalability, and potential adoption of our proposal in a smaller community context.

We will continue to pursue commercial relationships with innovation and industry partners to ensure that we are methodical and thorough in our design process. With over 200 industry proposals, we will take a deliberate approach to selecting the right partners. We anticipate partnerships with software and Internet of Things (IoT) vendors, telecommunications suppliers, and advanced data, sensor, device, and hardware providers. Also included are transportation infrastructure manufacturers, intelligent transportation systems vendors, and many relevant local and global startups.



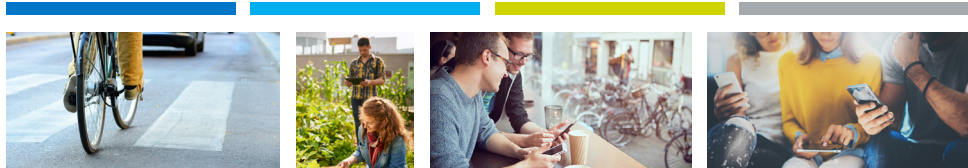
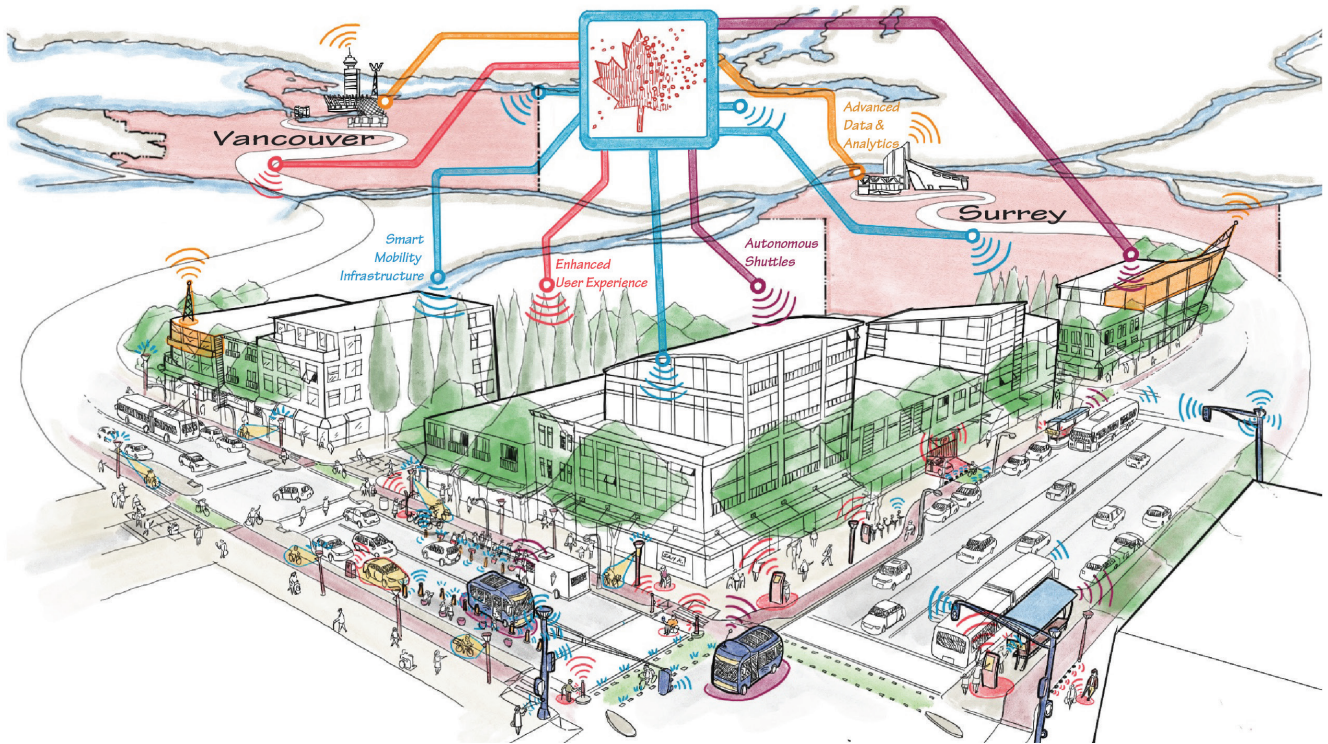
(Question 10 Con't)

It is also our intention to establish a “Design for All” Advisory Community. We will actively engage groups representing our diverse community and a broad range of special interests including seniors, families, persons with disabilities, urban indigenous, new immigrants, LGBTQ, gender equality, and privacy and security to partner with us on the design of the corridors.

10.3 - Bringing on Additional Partners

Surrey and Vancouver’s Memorandum of Understanding articulates an inclusive framework to on-board new partners, which we expect to do. Additionally, our Call for Innovation (CFI) allows all potential vendors to be qualified through a structured and transparent process before competitive evaluation.

The Surrey-Vancouver joint working group will continue its collaboration to advance the onboarding of partners as part of a mutually agreed governance framework that has been established as part of our unparalleled two-city collaboration.



SMART  
IDEAS  
START  
HERE  
smart  
cities  
challenge

April 20, 2018

The Honourable Amarjeet Sohi, P.C., M.P.  
Minister of Infrastructure and Communities  
180 Kent Street, Suite 1100  
Ottawa, ON K1P 0B6

Via email: [infc.sc-vi.infc@canada.ca](mailto:infc.sc-vi.infc@canada.ca)

Dear Minister Sohi,

**Re: The City of Surrey and City of Vancouver's Joint Submission to the Smart Cities Challenge**

On behalf of the City of Surrey and the City of Vancouver, we are pleased to present our joint submission to the Smart Cities Challenge.

This application is an unprecedented effort between our respective cities to advance British Columbia's two largest communities to becoming the next generation of smart cities. By working collaboratively we will provide the greatest improvement to quality of life for the largest number of Metro Vancouver residents. We are smarter together.

Throughout the early application process, we engaged our residents in a public dialogue on what they wanted to see put forward for the Smart Cities Challenge. We heard resoundingly that increasing mobility within our region and improving the safety of our transportation systems using smart city technology was the top priority. We are excited about taking this bid to the next level.

With a \$50 million investment through the Smart Cities Challenge we will not only move people more efficiently, but reduce the number of transportation-related accidents to zero.

We look forward to your review of our submission and eagerly anticipate working with Infrastructure Canada to make it reality.

Sincerely,



Gregor Robertson  
MAYOR, CITY OF VANCOUVER



Linda Hepner  
MAYOR, CITY OF SURREY



**SCHEDULE B – DRAFT CONTRACT**



**PROFESSIONAL SERVICES AGREEMENT**

**Title:** Development of an Intelligent Transportation Systems Strategy

**Reference No.:** 1220-030-2020-009

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**Title: Development of an Intelligent Transportation Systems Strategy**

**THIS AGREEMENT** is dated for reference this \_\_\_\_\_ day of \_\_\_\_\_, 2020.

**AGREEMENT No.: 1220-030-2020-009**

**BETWEEN:**

**CITY OF SURREY**  
13450 - 104 Avenue  
Surrey, British Columbia, V3T 1V8, Canada  
(the "**City**")

**AND:**

\_\_\_\_\_  
( **Insert Full Legal Name of Consultant**)

(the "**Consultant**")

**WHEREAS** the City wishes to engage the Consultant to provide Services in connection with

***Development of an Intelligent Transportation Systems Strategy***

**THEREFORE** in consideration of the payment of one (\$1.00) dollar and other good and valuable consideration paid by each of the parties to the other (the receipt and sufficiency of which is hereby acknowledged) the City and the Consultant agree as follows:

**1. INTERPRETATION**

**1.1 Definitions**

In this agreement the following definitions apply:

"**Disbursements**" has the meaning set out in section 5.3;

"**Dispute**" has the meaning set out in section 14.1;

"**Fees**" has the meaning set out in section 5.1;

"**Indemnitees**" has the meaning set out in section 7.1;

"**Invoice**" has the meaning set out in section 5.2(a);

"**Services**" has the meaning set out in section 2.1;

"**Term**" has the meaning set out in section 2.5; and

"**Time Schedule**" has the meaning set out in section 2.6.

## 1.2 Appendices

The following attached Appendices are a part of this agreement:

Appendix 1 – Scope of Services;  
Appendix 1-A – Smart Cities Challenge Application;  
Appendix 2 – Fees and Payment;  
Appendix 3 – Time Schedule;  
Appendix 4 – Personnel and Sub-Consultants; and  
Appendix 5 – Additional Services.

## 2. SERVICES

### 2.1 Services

The City hereby retains the Consultant to provide the consulting and professional services as described generally in Appendix 1, including anything and everything required to be done for the fulfillment and completion of this agreement (the “**Services**”).

### 2.2 Amendment of Services

The City may from time to time, by written notice to the Consultant, make changes in the scope of the Services. The Fees will be increased or decreased by written agreement of the City and the Consultant according to the rates set out in Appendix 2.

### 2.3 Additional Services

The Consultant will, if requested in writing by the City, perform additional services as may be listed in Appendix 5. The terms of this agreement will apply to any additional services, and the fees for additional services, and the time for the Consultant’s performance, will generally correspond to the fees and time of performance as described in Appendices 2 and 3. The Consultant will not provide any additional services in excess of the scope of services requested in writing by the City.

### 2.4 Standard of Care

The Consultant will perform the Services with that degree of care, skill and diligence normally provided by a qualified and experienced practitioner performing services similar to the Services, and on the understanding that the City is relying on the Consultant’s experience and expertise. The Consultant represents that it has the expertise, qualifications, resources and relevant experience to provide the Services.

### 2.5 Term

The Consultant will provide the Services for the period commencing on (START DATE) and terminating on (END DATE) (the “**Term**”). <Insert the term of the agreement>

### 2.6 Time

The Consultant acknowledges that time is of the essence with respect to the provision of the Services and accordingly the Consultant will provide the Services within the performance or completion dates or time periods (the "**Time Schedule**") as set out in Appendix 3, or as otherwise agreed to in writing by the City and the Consultant. If at any time the Consultant discovers that the Time Schedule cannot be met it will immediately advise the City in writing and provide a revised Time Schedule.

### **3. PERSONNEL**

#### **3.1 Qualified Personnel**

The Consultant will provide only professional personnel who have the qualifications, experience and capabilities to perform the Services.

#### **3.2 Listed Personnel and Sub-Consultants**

The Consultant will perform the Services using the professional personnel and sub-consultants as may be listed in Appendix 4, and the Consultant will not remove any such listed personnel or sub-consultants from the Services without the prior written approval of the City.

#### **3.3 Replacement of Personnel or Sub-Consultants**

If the City reasonably objects to the performance, qualifications, experience or suitability of any of the Consultant's personnel or sub-consultants then the Consultant will, on written request from the City, replace such personnel or sub-consultants.

#### **3.4 Sub-Consultants and Assignment**

Except as provided for in section 3.2, the Consultant will not engage any personnel or sub-consultants, or sub-contract or assign its obligations under this agreement, in whole or in part, without the prior written approval of the City.

#### **3.5 Agreements with Sub-Consultants**

The Consultant will preserve and protect the rights of the City with respect to any Services performed under sub-contract and incorporate the terms and conditions of this agreement into all sub-contracts as necessary to preserve the rights of the City under this agreement. The Consultant will be as fully responsible to the City for acts and omissions of sub-consultants and of persons directly or indirectly employed by them as for acts and omissions of persons directly employed by the Consultant.

### **4. LIMITED AUTHORITY**

#### **4.1 Agent of City**

The Consultant is not and this agreement does not render the Consultant an agent or employee of the City, and without limiting the above, the Consultant does not have authority to enter into any contract or reach any agreement on behalf of the City, except for the limited purposes as may be expressly set out in this agreement, or as necessary in order to perform the Services. The Consultant will make such lack of authority clear to all persons with whom the Consultant

deals in the course of providing the Services. Every vehicle used by the Consultant in the course of performing the services shall identify the Consultant by name and telephone number.

#### 4.2 Independent Contractor

The Consultant is an independent contractor. This agreement does not create the relationship of employer and employee, a partnership, or a joint venture. The City will not control or direct the details, means or process by which the Consultant performs the Services. The Consultant will determine the number of days and hours of work required to properly and completely perform the Services. The Consultant is primarily responsible for performance of the Services and may not delegate or assign any Services to any other person except as provided for in section 3.4. The Consultant will be solely liable for the wages, fringe benefits, work schedules and work conditions of any partners, employees or sub-consultants.

### 5. FEES

#### 5.1 Fees

The City will pay to the Consultant the fees as set out in Appendix 2 (the “Fees”). Payment by the City of the Fees and Disbursements will be full payment for the Services and the Consultant will not be entitled to receive any additional payment from the City.

Fees, Disbursements, and GST will not exceed the amount of <📄 insert contract price in numbers> without the prior written approval of the City.

#### 5.2 Payment

Subject to any contrary provisions set out in Appendix 2:

- (a) the Consultant will submit a **monthly** invoice (the “**Invoice**”) to the City requesting payment of the portion of the Fees and the Disbursements relating to the Services provided in the previous month, and including the following information:
  - (1) an invoice number;
  - (2) the Consultant’s name, address and telephone number;
  - (3) the City’s reference number for the Services; P.O. # **(to be advised)**
  - (4) the names, charge-out rates and number of hours worked **in the previous month** of all employees of the Consultant and any sub-consultants that **has/have** performed services during the previous **month**;
  - (5) the percentage of Services completed at the end of the previous month;
  - (6) the total budget for the Services and the amount of the budget expended to the date of the Invoice;
  - (7) taxes (if any);
  - (8) grand total of the Invoice;
- (b) the Consultant will on request from the City provide receipts and invoices for all Disbursements claimed;
- (c) if the City reasonably determines that any portion of an Invoice is not payable then the City will so advise the Consultant;
- (d) the City will pay the portion of an Invoice which the City determines is payable within 30 days of the receipt of the Invoice, except the City may hold back from payments 10% of the amount the City determines is payable to the Consultant until such time as the Consultant provides its Final Report to the City; and



- (e) if the Consultant offers the City a cash discount for early payment, then the City may, at the City's sole discretion, pay the portion of an Invoice which the City determines is payable at any time after receipt of the Invoice.

Invoices will be submitted by the Consultant by mail to:

Name: \_\_\_\_\_  
Address: \_\_\_\_\_  
\_\_\_\_\_

### **5.3 Disbursements**

In addition to the Fees, the City will reimburse the Consultant for actual out-of-pocket costs and expenses (“**Disbursements**”) as identified in Appendix 2 which the Consultant, and approved sub-consultants, incur in the performance of the Services, plus any additional Disbursements with the prior written approval of the City.

For greater certainty, costs of general management, non-technical supporting services and general overheads are deemed to be covered by the Fees and will not be subject to additional payment by the City.

### **5.4 Records**

The Consultant will prepare and maintain proper records related to the Services, including records, receipts and invoices relating to Disbursements. On request from the City, the Consultant will make the records available open to audit examination by the City at any time during regular business hours during the time the Consultant is providing the Services and for a period of six years after the Services are complete.

### **5.5 Non-Residents**

If the Consultant is a non-resident of Canada and does not provide to the City a waiver of regulation letter, the City will withhold and remit to the appropriate governmental authority the greater of:

- (a) 15% of each payment due to the Consultant; or
- (b) the amount required under applicable tax legislation.

## **6. CITY RESPONSIBILITIES**

### **6.1 City Information**

The City will, in co-operation with the Consultant make efforts to make available to the Consultant information, surveys, and reports which the City has in its files and records that relate to the Services. The Consultant will review any such material upon which the Consultant intends to rely and take reasonable steps to determine if that information is complete or accurate. The Consultant will assume all risks that the information is complete and accurate and the Consultant will advise the City in writing if in the Consultant's judgment the information is deficient or unreliable and undertake such new surveys and investigations as are necessary.

### **6.2 City Decisions**

The City will in a timely manner make all decisions required under this agreement, examine documents submitted by the Consultant and respond to all requests for approval made by the Consultant pursuant to this agreement.

### **6.3 Notice of Defect**

If the City observes or otherwise becomes aware of any fault or defect in the Services, it may notify the Consultant, but nothing in this agreement will be interpreted as giving the City the obligation to inspect or review the Consultant's performance of the Services.

## **7. INSURANCE AND DAMAGES**

### **7.1 Indemnity**

The Consultant will indemnify and save harmless the City and all of its elected and appointed officials, officers, employees, servants, representatives and agents (collectively the "**Indemnitees**"), from and against all claims, demands, causes of action, suits, losses, damages and costs, liabilities, expenses and judgments (including all actual legal costs) for damage to or destruction or loss of property, including loss of use, and injury to or death of any person or persons which any of the Indemnitees incur, suffer or are put to arising out of or in connection with any failure, breach or non-performance by the Consultant of any obligation of this agreement, or any wrongful or negligent act or omission of the Consultant or any employee or agent of the Consultant.

### **7.2 Survival of Indemnity**

The indemnity described in section 7.1 will survive the termination or completion of this agreement and, notwithstanding such termination or completion, will continue in full force and effect for the benefit of the Indemnitees.

### **7.3 Consultant's Insurance Policies**

The Consultant will, without limiting its obligations or liabilities and at its own expense, provide and maintain throughout this agreement the following insurances in forms and amounts acceptable to the City from insurers licensed to conduct business in Canada:

- (a) commercial general liability insurance on an occurrence basis, in an amount not less than three million (\$3,000,000) dollars inclusive per occurrence against death, bodily injury and property damage arising directly or indirectly out of the work or operations of the Consultant, its employees and agents. The insurance will include cross liability and severability of interests such that the coverage shall apply in the same manner and to the same extent as though a separate policy had been issued to each insured. The insurance will include, but not be limited to: premises and operators liability, broad form products and completed operations, owners and Consultants protective liability, blanket contractual, employees as additional insureds, broad form property damage, non-owned automobile, contingent employers liability, broad form loss of use, personal injury, and incidental medical malpractice. The City will be added as additional insured;
- (b) professional errors and omissions insurance in an amount not less two million (\$2,000,000) dollars insuring all professionals providing the Services from liability

- resulting from errors or omissions in the performance of the Services, with a 12 month maintenance period; and
- (c) automobile liability insurance on all vehicles owned, operated or licensed in the name of the Consultant in an amount not less than three million (\$3,000,000) dollars per occurrence for bodily injury, death and damage to property.

#### **7.4 Insurance Requirements**

The Consultant will provide the City with evidence of the required insurance prior to the commencement of this agreement. Such evidence will be in the form of a completed certificate of insurance acceptable to the City. The Consultant will, on request from the City, provide certified copies of all of the Consultant's insurance policies providing coverage relating to the Services, including without limitation any professional liability insurance policies. All required insurance will be endorsed to provide the City with thirty (30) days advance written notice of cancellation or material change restricting coverage. To the extent the City has an insurable interest, the builder's risk policy will have the City as first loss payee. The Consultant will be responsible for deductible amounts under the insurance policies. All of the Consultant's insurance policies will be primary and not require the sharing of any loss by the City or any insurer of the City.

#### **7.5 Consultant Responsibilities**

The Consultant acknowledges that any requirements by the City as to the amount of coverage under any policy of insurance will not constitute a representation by the City that the amount required is adequate and the Consultant acknowledges and agrees that the Consultant is solely responsible for obtaining and maintaining policies of insurance in adequate amounts. The insurance policy coverage limits shall not be construed as relieving the Consultant from responsibility for any amounts which may exceed these limits, for which the Consultant may be legally liable.

#### **7.6 Additional Insurance**

The Consultant shall place and maintain, or cause any of its sub-consultants to place and maintain, such other insurance or amendments to the foregoing policies as the City may reasonably direct.

#### **7.7 Waiver of Subrogation**

The Consultant hereby waives all rights of recourse against the City for loss or damage to the Consultant's property.

### **8. TERMINATION**

#### **8.1 By the City**

The City may at any time and for any reason by written notice to the Consultant terminate this agreement before the completion of all the Services, such notice to be determined by the City at its sole discretion. Upon receipt of such notice, the Consultant will perform no further Services other than the work which is reasonably required to terminate the Services and return the City's property to the City. Despite any other provision of this agreement, if the City terminates this agreement before the completion of all the Services, the City will pay to the Consultant all

amounts owing under this agreement for Services provided by the Consultant up to and including the date of termination, plus reasonable termination costs in the amount as determined by the City in its sole discretion. Upon payment of such amounts no other or additional payment will be owed by the City to the Consultant, and, for certainty, no amount will be owing on account of lost profits relating to the portion of the Services not performed or other profit opportunities.

## **8.2 Termination for Cause**

The City may terminate this agreement for cause as follows:

- (a) If the Consultant is adjudged bankrupt, or makes a general assignment for the benefit of creditors because of its insolvency, or if a receiver is appointed because of its insolvency, the City may, without prejudice to any other right or remedy the City may have, terminate this agreement by giving the Consultant or receiver or trustee in bankruptcy written notice; or
- (b) If the Consultant is in breach of any term or condition of this agreement, and such breach is not remedied to the reasonable satisfaction of the City within 5 days after delivery of written notice from the City to the Consultant, then the City may, without prejudice to any other right or remedy the City may have, terminate this agreement by giving the Consultant further written notice.

If the City terminates this agreement as provided by this Section, then the City may:

- (c) enter into contracts, as it in its sole discretion sees fit, with other persons to complete the Services;
- (d) withhold payment of any amount owing to the Consultant under this agreement for the performance of the Services;
- (e) set-off the total cost of completing the Services incurred by the City against any amounts owing to the Consultant under this agreement, and at the completion of the Services pay to the Consultant any balance remaining; and
- (f) if the total cost to complete the Services exceeds the amount owing to the Consultant, charge the Consultant the balance, which amount the Consultant will forthwith pay.

## **8.3 Curing Defaults**

If the Consultant is in default of any of its obligations under this agreement, then the City may without terminating this agreement, upon 5 days written notice to the Consultant, remedy the default and set-off all costs and expenses of such remedy against any amounts owing to the Consultant. Nothing in this agreement will be interpreted or construed to mean that the City has any duty or obligation to remedy any default of the Consultant.

## **9. APPLICABLE LAWS, BUILDING CODES AND BY-LAWS**

### **9.1 Applicable Laws**

This agreement will be governed by and construed in accordance with the laws of the Province of British Columbia. The City and the Consultant accept the jurisdiction of the courts of British Columbia and agree that any action under this agreement be brought in such courts.

### **9.2 Codes and By-Laws**

The Consultant will provide the Services in full compliance with all applicable laws, building codes and regulations.

### **9.3 Interpretation of Codes**

The Consultant will, as a qualified and experienced professional, interpret applicable codes, laws and regulations applicable to the performance of the Services. If an authority having jurisdiction imposes an interpretation which the Consultant could not reasonably have verified or foreseen prior to entering into this agreement, then the City will pay the additional costs, if any, of making alterations so as to conform to the required interpretation.

## **10. CONFIDENTIALITY AND DISCLOSURE OF INFORMATION**

### **10.1 No Disclosure**

Except as provided for by law or otherwise by this agreement, the Consultant will keep strictly confidential any information supplied to, obtained by, or which comes to the knowledge of the Consultant as a result of the performance of the Services and this agreement, and will not, without the prior express written consent of the City, publish, release, disclose or permit to be disclosed any such information to any person or corporation, either before, during or after termination of this agreement, except as reasonably required to complete the Services.

### **10.2 Freedom of Information and Protection of Privacy Act**

The Consultant acknowledges that the City is subject to the *Freedom of Information and Protection of Privacy Act* of British Columbia and agrees to any disclosure of information by the City required by law.

### **10.3 Return of Property**

The Consultant agrees to return to the City all of the City's property at the completion of this agreement, including any and all copies or originals of reports provided by the City.

## **11. USE OF WORK PRODUCT**

The Consultant hereby sells, assigns and transfers to the City the right, title and interest required for the City to use and receive the benefit of all the reports, drawings, plans, designs, models, specifications, computer software, concepts, products, designs or processes or other such work product produced by or resulting from the Services rendered by the Consultant.

## **12. WORKERS' COMPENSATION BOARD AND OCCUPATIONAL HEALTH AND SAFETY**

- 12.1 The Consultant agrees that it shall, at its own expense, procure and carry, or cause to be procured, carried and paid for, full Workers' Compensation Board coverage for itself and all workers, employees, servants and others engaged in or upon any work or service which is the subject of this agreement. The Consultant agrees that the City has the unfettered right to set off the amount of the unpaid premiums and assessments for the Workers' Compensation Board coverage against any monies owing by the City to the Consultant. The City will have the right to withhold payment under this agreement until the Workers' Compensation Board premiums, assessments or penalties in respect of the Services have been paid in full.
- 12.2 The Consultant will provide the City with the Consultant's Workers' Compensation Board registration number and a letter from the Workers' Compensation Board confirming that the Consultant is registered in good standing with the Workers' Compensation Board and that all assessments have been paid to the date thereof prior to the City having any obligations to pay monies under this agreement.
- 12.3 The Consultant agrees that it is the prime contractor for the Services as defined in the *Workers Compensation Act*, R.S.B.C. 1996, c. 492 as amended and will ensure compliance with the *Workers Compensation Act* and Regulations in respect of the workplace. Without limiting its responsibilities under the legislation, the Consultant will coordinate the activities of employers, workers and other persons at the workplace relating to occupational health and safety. The Consultant will have a safety program in place that meets the requirements of the Workers' Compensation Board Occupational Health and Safety Regulation and the *Workers Compensation Act*. As prime contractor, the Consultant will be responsible for appointing a qualified coordinator for insuring the health and safety activities for the location of the Services. That person will be the person so identified in Appendix 4 of this agreement, and the Consultant will advise the City immediately in writing if the name or contact number of the qualified coordinator changes.
- 12.4 Without limiting the generality of any other indemnities granted by the Consultant in this agreement, the Consultant shall indemnify and save harmless the Indemnitees from and against all claims, demands, causes of action, suits, losses, damages, costs, liabilities, expenses, judgements, penalties and proceedings (including all actual legal costs) which any of the Indemnitees incur, suffer or are put to arising out of or in any way related to unpaid Workers' Compensation Board assessments owing from any person or corporation engaged in the performance of this agreement or arising out of or in any way related to the failure to observe safety rules, regulations and practices of the Workers' Compensation Board, including penalties levied by the Workers' Compensation Board.
- 12.5 The Consultant will ensure compliance with and conform to all health and safety laws, by-laws or regulations of the Province of British Columbia, including without limitation the *Workers Compensations Act* and Regulations pursuant thereto.
- 12.6 The City may, on twenty-four (24) hours written notice to the Consultant, install devices or rectify any conditions creating an immediate hazard existing that would be likely to result in injury to any person. However, in no case will the City be responsible to ascertaining or discovering, through inspections or review of the operations of the Consultant or otherwise, any deficiency or immediate hazard.

### **13. BUSINESS LICENSE**

- 13.1 The Consultant will obtain and maintain throughout the term of this agreement a valid City of Surrey business license.

### **14. DISPUTE RESOLUTION**

#### **14.1 Dispute Resolution Procedures**

The parties will make reasonable efforts to resolve any dispute, claim, or controversy arising out of this agreement or related to this agreement (“**Dispute**”) using the dispute resolution procedures set out in this section 14.

(a) Negotiation

The parties will make reasonable efforts to resolve any Dispute by amicable negotiations and will provide frank, candid and timely disclosure of all relevant facts, information and documents to facilitate negotiations.

(b) Mediation

If all or any portion of a Dispute cannot be resolved by good faith negotiations within 30 days, either party may by notice to the other party refer the matter to mediation. Within 7 days of delivery of the notice, the parties will mutually appoint a mediator. If the parties fail to agree on the appointment of the mediator, then either party may apply to the British Columbia International Commercial Arbitration Centre for appointment of a mediator. The parties will continue to negotiate in good faith to resolve the Dispute with the assistance of the mediator. The place of mediation will be Surrey, British Columbia. Each party will equally bear the costs of the mediator and other out-of-pocket costs, and each party will bear its own costs of participating in the mediation.

(c) Litigation

If within 90 days of the request for mediation the Dispute is not settled, or if the mediator advises that there is no reasonable possibility of the parties reaching a negotiated resolution, then either party may without further notice commence litigation.

### **15. JURISDICTION AND COUNCIL NON-APPROPRIATION**

- 15.1 Nothing in this agreement limits or abrogates, or will be deemed to limit or abrogate, the jurisdiction of the Council of the City in the exercise of its powers, rights or obligations under any public or private statute, regulation or by-law or other enactment.
- 15.2 The Consultant recognizes and agrees that the City cannot make financial commitments beyond the City's current fiscal year. The City will annually make bonafide requests for appropriation of sufficient funds to cover all payments covered by this agreement. If City Council does not appropriate funds, or appropriates insufficient funds, the City will notify the Consultant of its intention to terminate or reduce the services so affected within 30 days after the non-appropriation becomes final. Such termination shall take effect 30

days from the date of notification, shall not constitute an event of default and shall relieve the City, its officers and employees, from any responsibility or liability for the payment of any further amounts under this agreement.

## **16. GENERAL**

### **16.1 Entire Agreement**

This agreement, including the Appendices and any other documents expressly referred to in this agreement as being a part of this agreement, contains the entire agreement of the parties regarding the provision of the Services and no understandings or agreements, oral or otherwise, exist between the parties except as expressly set out in this agreement. This agreement supersedes and cancels all previous agreements between the parties relating to the provision of the Services.

### **16.2 Amendment**

This agreement may be amended only by agreement in writing, signed by both parties.

### **16.3 Consultant Terms Rejected**

In the event that the Consultant issues an invoice, packing slip, sales receipt, or any like document to the City, the City accepts the document on the express condition that any terms and conditions in it which constitute terms and conditions which are in addition to or which establish conflicting terms and conditions to those set out in this agreement are expressly rejected by the City.

### **16.4 Survival of Obligations**

All of the Consultant's obligations to perform the Services in a professional and proper manner will survive the termination or completion of this agreement.

### **16.5 Cumulative Remedies**

The City's remedies under this agreement are cumulative and in addition to any right or remedy which may be available to the City at law or in equity.

### **16.6 Notices**

Any notice, report or other document that either party may be required or may wish to give to the other should be in writing, unless otherwise provided for, and will be deemed to be validly given to and received by the addressee, if delivered personally, on the date of such personal delivery, if delivered by facsimile, on transmission, or if by mail, five calendar days after posting. The addresses for delivery will be as follows:

(a) The City:

City of Surrey

<img alt="redacted" data-bbox="295 865 325 878"/> **insert department/division/section name**>

13450 – 104 Avenue, Surrey, B.C., Canada, V3T 1V8



Attention: <img alt="redacted" data-bbox="294 111 324 124"/> **insert contact name**  
<img alt="redacted" data-bbox="294 129 324 142"/> **insert title**

Business Fax No.: <img alt="redacted" data-bbox="353 164 383 177"/> **insert**  
Business Email: <img alt="redacted" data-bbox="353 182 383 195"/> **insert**

(b) The Consultant (**Contract Administrator**):

<img alt="redacted" data-bbox="294 247 324 260"/> **insert name and address**

Attention: <img alt="redacted" data-bbox="294 280 324 293"/> **insert contact name**  
<img alt="redacted" data-bbox="294 298 324 311"/> **insert title**

Business Fax No.: <img alt="redacted" data-bbox="353 332 383 345"/> **insert**  
Business Email: <img alt="redacted" data-bbox="353 350 383 363"/> **insert**

## **16.7 Unenforceability**

If any provision of this agreement is invalid or unenforceable, it will be severed from the agreement and will not affect the enforceability or validity of the remaining provisions of the agreement.

## **16.8 Headings**

The headings in this agreement are inserted for convenience of reference only and will not form part of nor affect the interpretation of this agreement.

## **16.9 Singular, Plural and Gender**

Wherever the singular, plural, masculine, feminine or neuter is used throughout this agreement the same will be construed as meaning the singular, plural, masculine, feminine, neuter or body corporate where the context so requires.

## **16.10 Waiver**

No waiver by either party of any breach by the other party of any of its covenants, obligations and agreements will be a waiver of any subsequent breach or of any other covenant, obligation or agreement, nor will any forbearance to seek a remedy for any breach be a waiver of any rights and remedies with respect to such or any subsequent breach.

## **16.11 Signature**

This agreement may be executed in one or more counterparts all of which when taken together will constitute one and the same agreement, and one or more of the counterparts may be delivered by fax or PDF email transmission.

## **16.12 Enurement**

This agreement shall enure to the benefit of and be binding upon the respective successors and permitted assigns of the City and the Consultant.

**IN WITNESS WHEREOF** the parties hereto have executed this agreement on the day and year first above written.

**CITY OF SURREY**

**I/We have the authority to bind the City.**

\_\_\_\_\_  
(Signature of Authorized Signatory)

\_\_\_\_\_  
(Signature of Authorized Signatory)

\_\_\_\_\_  
(Print Name and Position of Authorized Signatory)

\_\_\_\_\_  
(Print Name and Position of Authorized Signatory)

 **INSERT NAME OF CONSULTANT**

**I/We have the authority to bind the Consultant.**

\_\_\_\_\_  
(Legal Name of Consultant)

\_\_\_\_\_  
(Signature of Authorized Signatory)

\_\_\_\_\_  
(Signature of Authorized Signatory)

\_\_\_\_\_  
(Print Name and Position of Authorized Signatory)

\_\_\_\_\_  
(Print Name and Position of Authorized Signatory)

Updated: October 18, 2016

**MAY 21, 2009**

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***(APPENDICES 1 THROUGH 5 WILL BE INSERTED LATER WHEN AN AGREEMENT IS ASSEMBLED FOR EXECUTION INCLUDING INFORMATION FROM THE RFP AND SUCCESSFUL PROPOSAL.)***

**APPENDIX 1 – SCOPE OF SERVICES**

**APPENDIX 1-A – SMART CITIES CHALLENGE APPLICATION**

**APPENDIX 2 – FEES AND PAYMENT**

**APPENDIX 3 – TIME SCHEDULE**

**APPENDIX 4 – PERSONNEL AND SUB-CONSULTANTS**

**APPENDIX 5 – ADDITIONAL SERVICES**

**SCHEDULE C – FORM OF PROPOSAL**

**RFP Project Title:** Development of an Intelligent Transportation Systems Strategy

**RFP Reference No.:** 1220-030-2020-009

**Legal Name of Proponent:** \_\_\_\_\_

**Contact Person and Title:** \_\_\_\_\_

**Business Address:** \_\_\_\_\_

**Business Telephone:** \_\_\_\_\_

**Business Fax:** \_\_\_\_\_

**Business E-Mail Address:** \_\_\_\_\_

TO:

City Representative: Richard D. Oppelt, Manager, Procurement Services

Address: City of Surrey, Surrey City Hall  
Finance Department – Purchasing Section  
Reception Counter, 5<sup>th</sup> Floor West  
13450 – 104 Avenue, Surrey, B.C., V3T 1V8, Canada

E-mail for PDF Files: purchasing@surrey.ca

Dear Sir:

**1.0** I/We, the undersigned duly authorized representative of the Proponent, having received and carefully reviewed all of the Proposal documents, including the RFP and any issued addenda posted on the City Website and BC Bid Website, and having full knowledge of the Site, and having fully informed ourselves as to the intent, difficulties, facilities and local conditions attendant to performing the Services, submit this Proposal in response to the RFP.

**2.0** I/We confirm that the following schedules are attached to and form a part of this Proposal:

- Schedule C-1 – Statement of Departures;
- Schedule C-2 – Proponent’s Experience, Reputation and Resources;
- Schedule C-3 – Proponent’s Technical Proposal (Services);
- Schedule C-4 – Proponent’s Technical Proposal (Time Schedule); and
- Schedule C-5 – Proponent’s Financial Proposal.

**3.0** I/We confirm that this proposal is accurate and true to best of my/our knowledge.

**4.0 I/We confirm** that, if I/we am/are awarded a contract, I/we will at all times be the “prime contractor” as provided by the *Worker's Compensation Act (British Columbia)* with respect to the Services. I/we further confirm that if I/we become aware that another consultant at the place(s) of the Services has been designated as the “prime contractor”, I/we will notify the City immediately, and I/we will indemnify and hold the City harmless against any claims, demands, losses, damages, costs, liabilities or expenses suffered by the City in connection with any failure to so notify the City.

**This Proposal** is submitted this **[day]** day of **[month], [year]**.

**I/We have the authority to bind the Proponent.**

\_\_\_\_\_  
(Legal Name of Proponent)

\_\_\_\_\_  
(Signature of Authorized Signatory)

\_\_\_\_\_  
(Signature of Authorized Signatory)

\_\_\_\_\_  
(Print Name and Position of Authorized Signatory)

\_\_\_\_\_  
(Print Name and Position of Authorized Signatory)

**SCHEDULE C-1 - STATEMENT OF DEPARTURES**

1. I/We have reviewed the proposed Contract attached to the RFP as Schedule “B”. If requested by the City, I/we would be prepared to enter into that Contract, amended by the following departures (list, if any):

<b>Section</b>	<b>Requested Departure(s) / Alternative(s)</b>
_____	_____
_____	_____

2. The City of Surrey requires that the successful Proponent have the following in place **before commencing the Services**:

- (a) Workers' Compensation Board coverage in good standing and further, if an “Owner Operator” is involved, personal operator protection (P.O.P.) will be provided,  
Workers' Compensation Registration Number \_\_\_\_\_;
- (b) Prime Contractor qualified coordinator is Name: \_\_\_\_\_  
and Contact Number: \_\_\_\_\_;
- (c) Insurance coverage for the amounts required in the proposed Agreement as a minimum, naming the City as additional insured and generally in compliance with the City's sample insurance certificate form available on the City's Website at [www.surrey.ca](http://www.surrey.ca) search [Consultants Certificate of Insurance](#);
- (d) City of Surrey or Intermunicipal Business License: Number \_\_\_\_\_;
- (e) If the Consultant's Goods and Services are subject to GST, the Consultant's GST Number is \_\_\_\_\_; and
- (f) If the Consultant is a company, the company name indicated above is registered with the Registrar of Companies in the Province of British Columbia, Canada, Incorporation Number \_\_\_\_\_.

As of the date of this Proposal, we advise that we have the ability to meet all of the above requirements **except as follows** (list, if any):

<b>Section</b>	<b>Requested Departure(s) / Alternative(s)</b>
_____	_____
_____	_____

3. I/We offer the following alternates to improve the Services described in the RFP (list, if any):

<b>Section</b>	<b>Requested Departure(s) / Alternative(s)</b>
_____	_____
_____	_____

4. The Proponent acknowledges that the departures it has requested in Sections 1, 2 and 3 of this Schedule C-1 will not form part of the Contract unless and until the City agrees to them in writing by initialling or otherwise specifically consenting in writing to be bound by any of them.

**SCHEDULE C-2 - PROPONENT'S EXPERIENCE, REPUTATION AND RESOURCES**

Proponents should provide information on the following (use the spaces provided and/or attach additional pages, if necessary):

- (i) Location of primary business, branch locations, background, stability, structure of the Proponent and number of years business has been operational;
- (ii) Proponent's relevant experience and qualifications in delivering Services similar to those required by the RFP;
- (iii) Proponent's demonstrated ability to provide the Services;
- (iv) Proponent's equipment resources, capability and capacity, as relevant;
- (v) References: Major ITS projects that the Proponent has completed in the past five (5) years including the names of the clients and contact persons who will be able to provide a reference, a description of the nature of the work, the size and the complexity of the project, and costs
- (vi) Experiences of key personnel (e.g., Project Manager, Site Superintendent), etc.,)
  - 1. Provide a list of key personnel that will be assigned to the project; and
  - 2. Provide a list of projects that were completed by the identified key personnel in the last five (5) years.

Experiences of office personnel (e.g., estimator):

- 1. Provide a list of key personnel that will be assigned to the project; and
- 2. Provide a list of projects that were completed by the identified office personnel in the last five (5) years.

**Project Approach – Team Roles**

- (vii) Proponents should provide an outline of the resource roles and estimated effort required for this project. (use the spaces provided and/or attach additional pages, if necessary):

<b>Role</b>	<b>Name</b>	<b>Forecasted Project Days/Hrs.</b>



**Sub-Consultants**

(viii) Proponents should provide the following information on the background and experience of all sub-consultants proposed to undertake a portion of the Services (use the spaces provided and/or attach additional pages, if necessary):

DESCRIPTION OF SERVICES	SUB-CONSULTANTS NAME	YEARS OF WORKING WITH PROPONENT	TELEPHONE NUMBER AND EMAIL

- (ix) Proponent’s financial strength (with evidence such as financial statements, bank references);
- (x) Describe any difficulties or challenges you might anticipate in providing the Services to the City and how you would plan to manage these; and
- (xii) Any other information that the City should be aware of that demonstrate the Proponent’s expertise.

**SCHEDULE C-3 - PROPONENT'S TECHNICAL PROPOSAL (SERVICES)**

Proponents should provide the following (use the spaces provided and/or attach additional pages, if necessary):

- (i) a narrative that illustrates an understanding of the City's requirements and Services;
- (ii) a description of the general approach and methodology that the Proponent would take in performing the Services including specifications and requirements;
- (iii) a narrative that illustrates how the Proponent will complete the scope of Services, manage the Services, and accomplish required objectives within the City's schedule;
- (iv) a description of the standards to be met by the Proponent in providing the Services;
- (v) a list of reports that you would anticipate providing the City's management team, including their relationship to project milestones and the method of delivery (electronic, paper, e-mail, other);
- (vii) Value Added Services: The Proponent should provide a description of value added, innovative ideas and unique services that the Proponent can offer to implement the City's requirements relevant to the scope of Services described in this RFP. Unless otherwise stated, it is understood that there are no extra costs for these services;

**SCHEDULE C-4 - PROPONENT'S TECHNICAL PROPOSAL (TIME SCHEDULE)**

Proponents should provide an estimated schedule, with major item descriptions and time indicating a commitment to perform the Services within the time specified (use the spaces provided and/or attach additional pages, if necessary).

MILESTONE DATES \_\_\_\_\_

ACTIVITY	SCHEDULE									
	1	2	3	4	5	6	7	8	9	10

**SAMPLE**

**SCHEDULE C-5 - PROPONENT'S FINANCIAL PROPOSAL**

Proponents should set out in their Proposal, the proposed fee structure (excluding GST) and provide a breakdown of the budget, including a breakdown of the estimated hours to be spent by each individual on the consultant team and the charge out hourly rate for each individual included in their Proposal.

The Fee structure should be tabulated in a spreadsheet format with each task itemized including hourly rates, break out costs as specified for the project and all deliverables, and fees for anything the Proponent would consider additional work. Sub-consultant fees and disbursements should also be itemized.

**Schedule of Rates:**

Item No.	Description	Estimated Quantity of Hours	Hourly Rate	Total Price
	<b>Labour:</b>			
	<b>Materials:</b>			
	<b>Disbursements:</b>			
	<b>Subtotal:</b>			
	<b>GST:</b>			
	<b>TOTAL PROPOSAL PRICE:</b>			

**SAMPLE**

**Additional Expenses:**

The proposed Contract attached as Schedule "B" to the RFP provides that expenses are to be included within the fee, other than the expenses listed in the Contract as disbursements. Details of disbursements are to be shown in the chart above. Please indicate any expenses that would be payable in addition to the proposed fee and proposed disbursements set out above:

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**Payment Terms:**

A cash discount of \_\_\_\_\_% will be allowed if account is paid within \_\_\_\_\_ days, or the \_\_\_\_\_ day of the month following, or net 30 days, on a best effort basis.

SEPTEMBER 10, 2009