REQUEST FOR PROPOSAL

#P11.2015

Central Region (2015) – Infrastructure Data Acquisition and SDE Database Updates
(Zones - Bedford 3, Bedford 4, Lower Sackville, Middle Sackville)

Sealed bids submitted on the included bid form ONLY in a plain envelope marked:

“RFP# P11.2015 – “Central Region (2015) - Infrastructure Data Acquisition and SDE Database Updates

Addressed to:

Michelle Comeau
Procurement Supervisor
Halifax Water
450 Cowie Hill Road
Halifax, NS B3P 2V3

Will be received until 2:00 p.m. Atlantic Time, June 25, 2015 for the above RFP as per the specifications and terms and conditions.

Check for changes to this request – Before submitting your bid, visit the Provincial Government Web Portal at www.gov.ns.ca/tenders to see if any Addenda detailing changes have been issued on this proposal. Changes may be posted up until the proposal closing time. It is the bidders’ responsibility to acknowledge and take into account all Addenda.

Bidders shall be solely responsible for the delivery of their bids in the manner and time prescribed. Bids received after the date and time specified shall be rejected.

Electronic and facsimile bids are not accepted.

The lowest or any submission will not necessarily be accepted.

RFP Issue Date – June 4, 2015
The undersigned hereby acknowledges that he/she, as an officer of the stated corporation, has read and understands the specifications, requirements, and proposed agreement regarding the **Central Region (2015) – SDE Database Update Project** for Halifax Water. He/she further acknowledges that the seller’s proposed product, equipment, materials, and services fully meet or exceed those as specified in Halifax Water’s Proposal. Additionally, the Proponent agrees that all its bid documents and responses to the aforementioned Proposal will, at the option of Halifax Water, become a legally binding and essential portion of the final contract between the successful Proponent and Halifax Water.

*The following information must be completed to ensure acceptance.*

*ADDENDA* No. ___________ to ___________ INCLUSIVE WERE CAREFULLY EXAMINED.

DATED THIS _______ DAY OF ________________, 2015.

PROPONENT’S COMPANY NAME:____________________________________________________________

ADDRESS: __________________________________________________________________________

____________________________________________________________________________________

CITY/ PROVINCE: ____________________  POSTAL CODE: ________________

PHONE NO.: ______________________  FAX NO.: ________________________

EMAIL ADDRESS: ________________________________________________________________

WEBSITE: __________________________________________________________________________

CONTACT NAME (please print): __________________________________________________________________________

TITLE (please print): ____________________________  PHONE NO.: __________________________

AUTHORIZED SIGNATURE: __________________________________________________________________________

HST REGISTRATION NO: ________________________________________________________________

WCB COVERAGE: [ ] YES [ ] NO

* The proponent shall list and initial all addenda received during the period and shall take them into consideration when preparing their bid submission. A signed copy of each Addendum must be included with the bid submission. Failure to comply may be cause for rejection of bid submission.

**HALIFAX WATER RESERVES THE RIGHT TO REJECT ANY OR ALL SUBMISSIONS. THE LOWEST OR ANY SUBMISSION WILL NOT NECESSARILY BE ACCEPTED.**

This proposal will adhere to Halifax Water’s Standard Terms & Conditions. They can be found on our website at [http://www.halifax.ca/procurement/terms.php](http://www.halifax.ca/procurement/terms.php)
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<tr>
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<th>Signature</th>
<th>Date</th>
</tr>
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<tbody>
<tr>
<td>Director of Engineering and IS</td>
<td></td>
<td>June 5, 2015</td>
</tr>
<tr>
<td>(Jamie Hannam)</td>
<td></td>
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<tr>
<td>Manager, Engineering Information</td>
<td></td>
<td>June 5, 2015</td>
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<tr>
<td>(Harold MacNeil)</td>
<td></td>
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<tr>
<td>Program Manager – GIS Update Projects</td>
<td></td>
<td>June 5, 2015</td>
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<tr>
<td>(Chris Turner)</td>
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1.0 INTRODUCTION

Halifax Water is soliciting proposals for an Infrastructure Data Acquisition and Spatial Database Engine (SDE) Database Update project that covers zones in the Central Region classified as Bedford 3, Bedford 4, Lower Sackville and Middle Sackville (Appendix A). The successful proponent will be given remote login access (Virtual Private Network (VPN)) to a Halifax Water virtual machine through RDP so they may perform regularly scheduled data updates using *versioned editing (i.e. a form of GIS data updating). For a graphical representation of this process, refer to Figure 1 below.

*Versioned Editing: Versioning is the mechanism that enables concurrent multiuser geodatabase editing in ArcSDE geodatabases. It uses an optimistic concurrency data-locking model, which means no locks are applied to affected features and rows during long transactions. It is the default editing environment in enterprise ArcSDE geodatabases and supports complex editing workflows that are required by enterprise GIS systems.

*Field and Data Acquisition: refers to land surveying activities, record drawing analysis, record drawing/other sources of
The anticipated methodology would include field survey (field acquisition) and office data acquisition (i.e. transferring information and attributes off historical paper drawings, paper maps, digital record drawings, sketches, survey digital files, spreadsheets, cards, and other data sources) of Halifax Water features that are coded to Halifax Water standards. The information (both spatial and non-spatial data) gathered by the successful proponent would be entered into Halifax Water’s SDE database using versioned editing.

The successful proponent(s) must also submit a Weekly Version Review Request to the Halifax Water Project Manager. Halifax Water will then initiate its QC process to determine the overall quality of the information received. At that time the rejection or approval of those edits is determined and feedback is provided to the successful proponent.

Due to the nature of this project and its stringent deliverable schedule (Table 2 – Project Delivery Schedule), Halifax Water reserves the right to award this project zone by zone to different consultants if necessary. The project can also be awarded in its entirety to one consultant.

As part of the consultant’s response, it must be clearly articulated how the consultant will complete this project in its entirety by December 31, 2015. The consultant must also clearly illustrate in their response, what it believes are the threats to the delivery schedule (Table 2 – Project Delivery Schedule) along with how they plan to mitigate those threats so the schedule is not jeopardized.

In your response clearly articulate how your resourcing planning accommodates vacations, holidays, sick time, inclement weather, and any other potential consultant project delays. Halifax Water will assume that the dates provided as part of your proposal have mitigated the above noted items (i.e. vacations, holidays, sick time, inclement weather, and any other potential consultant project delays) and other risks, so that the December 31, 2015 project completion date can be achieved.

Consultants will be able to view further records (Appendix B) through appointment by contacting Chris Turner at christ@halifaxwater.ca or by calling 902-237-8558. The same viewing material will be available at a non-mandatory pre-bid session, scheduled for June 11, 2015, time and location to be communicated through the Nova Scotia Tenders site (https://www.novascotia.ca/tenders/tenders/ns-tenders.aspx).
2.0 KEY SUCCESS FACTORS

To ensure the successful delivery of this project, the following Critical Success Factors must be achieved:

- **Key Success Factor 1:** The project in its entirety must be completed by no later than December 31, 2015. This includes Halifax Water approval of all deliverables.

- **Key Success Factor 2:** The consultant must consistently and accurately perform versioned editing and submit a Weekly Version Request Review in conjunction with meeting all of the Halifax Water standards (i.e. spatial and non-spatial data as per all of the specifications required by Halifax Water).

- **Key Success Factor 3:** The entire project must be completed on budget.

3.0 SCOPE OF WORK

3.1 Geographic Scope

The Central Region is comprised of the following Zones.

CENTRAL REGION ZONES
- Bedford 3 (See Appendix A.2 Bedford 3 Zone Map).
- Bedford 4 (See Appendix A.3 Bedford 4 Zone Map With Delineated Pilot Area and Detailed Bedford 4 Pilot Area Map).
- Lower Sackville (See Appendix A.4 Lower Sackville Zone Map).
- Middle Sackville (See Appendix A.5 Middle Sackville Zone Map With Delineated Pilot Area and Detailed Middle Sackville Pilot Area Map).

For the purpose of preparing your response, the consultant must reference their approach towards the classification of “Region”, “Zone”, and “Area”. For clarity, many “Areas” comprise a Zone, and many “Zones” comprise a Region. Below is a general description of the zones in scope for this project (note that there are exemption areas in some or all zones). The following descriptions and associated metrics are estimations only and should not be taken as the official details of these zones.

3.1.1 Zone Name: Bedford 3 & Bedford 4

a) **Bedford 3:** The Halifax Water Central Region - Bedford 3 zone, lies southeast of Lower Sackville and North of the Bedford 4 zone. There are approximately (+/- 15%) 13 kilometers (not necessarily an indicator of pipe length) of streets that fall within this zone. The Bedford 3 zone is home to approximately 120 service connections where each service connection could have 3 separate linear assets such as water, stormwater, and wastewater features that require GIS
updating using the versioned editing process.

b) **Bedford 4:** The Halifax Water Central Region - Bedford 4 zone, lies south of the Bedford 3 zone and partially borders with Halifax Harbour on its lower west side boundary. There are approximately (+/- 15%) 40 kilometers (not necessarily an indicator of pipe length) of streets that fall within this zone. The Bedford 4 zone is home to approximately 1352 service connections where each service connection could have 3 separate linear assets such as water, stormwater, and wastewater features that require GIS updating using the versioned editing process.

As part of your response, Halifax Water expects the Consultant to provide a “**Bedford 3 and Bedford 4 GIS Update Area Boundary Map**” that illustrates 3 proposed GIS Update Areas that is specific to a package of work for field and data acquisition* activities. The 3 “GIS Update Areas” when combined, will represent the complete Bedford 3 and Bedford 4 zone and if accepted by Halifax Water, will become the Bedford 3 and Bedford 4 zone’s GIS Update Areas. The GIS Update Areas for Bedford 3 and Bedford 4 must have weekly submissions (using the versioned editing process) for continual review by Halifax Water. The GIS Update Areas (and pilot area) for Bedford 3 and Bedford 4 must be completed and approved by Halifax Water no later than:

1. Bedford 3 and Bedford 4 GIS Update Pilot Area: July 31, 2015
2. Bedford 3 and Bedford 4 GIS Update Area 1 Completion Date: August 21, 2015
3. Bedford 3 and Bedford 4 GIS Update Area 2 Completion Date: August 21, 2015
4. Bedford 3 and Bedford 4 GIS Update Area 3 Completion Date: August 21, 2015

The consultant must ensure it has the necessary capacity to deliver on schedule, to each of the Bedford 3 and Bedford 4 defined areas as outlined in Table 2 – **Project Delivery Schedule**. Consultants must also clearly illustrate how its resource plan can attain the delivery dates for the GIS updates for Bedford 3 and Bedford 4. The consultant must also ensure weekly updates are being performed and submitted weekly to Halifax Water through a Weekly Version Review Request process.

Within the Bedford 3 and Bedford 4 Zones, Halifax Water requires the consultant to deliver first on the defined pilot area. The Bedford 3 and Bedford 4 zone’s *pilot area has been predefined by Halifax Water. The consultant must take extra care when writing its response, to ensure its proposed delineated “GIS Update Areas” do not overlap with the pilot area and that a proposed GIS Update Area does not overlap across the boundary of Bedford 3 and Bedford 4. For more details on the delivery schedule for the Bedford 3 and Bedford 4 Zone, refer to Table 2 – **Project Delivery Schedule**.

*Pilot Area:* If at any point Halifax Water determines a pilot area is not required, the associated cost will be removed from the project budget.
3.1.2 **Zone Name: Lower Sackville**

The Halifax Water Central Region - Lower Sackville Zone, lies southeast of Middle Sackville and Northwest of the Bedford 3 Zone. There are approximately (+/- 15%) 100 kilometers of streets (not necessarily an indicator of pipe length) that fall within this zone. The Lower Sackville Zone is home to approximately 5708 service connections where each service connection could have 3 separate linear assets such as water, stormwater, and wastewater features that require GIS updating using the versioned editing process.

As part of your response, Halifax Water expects the Consultant to provide a “Lower Sackville GIS Update Area Boundary Map” that illustrates 3 proposed GIS Update Areas that is specific to a package of work for field and data acquisition* activities. The 3 “GIS Update Areas” when combined, will represent the complete Lower Sackville zone and if accepted by Halifax Water, will become the Lower Sackville zone’s GIS Update Areas. The GIS Update Areas for Lower Sackville must have weekly submissions (using the versioned editing process) for continual review by Halifax Water. The GIS Update Areas for Lower Sackville must be completed and approved by Halifax Water no later than:

1) Lower Sackville GIS Update Area 1 Completion Date: September 28, 2015
2) Lower Sackville GIS Update Area 2 Completion Date: September 28, 2015
3) Lower Sackville GIS Update Area 3 Completion Date: October 16, 2015

The consultant must ensure it has the necessary capacity to deliver on schedule, to each of the Lower Sackville defined areas as outlined in Table 2 – Project Delivery Schedule. Consultants must also clearly illustrate how its resource plan can attain the delivery dates for the GIS updates for Lower Sackville. The consultant must also ensure weekly updates are being performed and submitted weekly to Halifax Water through a Weekly Version Review Request process.

3.1.3 **Zone Name: Middle Sackville**

The Halifax Water Central Region - Middle Sackville zone, lies northwest of Lower Sackville. There are approximately (+/- 15%) 30 kilometers of streets (not necessarily an indicator of pipe length) that fall within this zone. The Middle Sackville zone is home to approximately 1451 service connections where each service connection could have 3 separate linear assets such as water, stormwater, and wastewater features that require GIS updating using the versioned editing process.

As part of your response, Halifax Water expects the Consultant to provide a “Middle Sackville GIS Update Area Boundary Map” that illustrates 2 proposed GIS Update Areas that is specific to a package of work for field and data acquisition* activities. The 2 “GIS Update Areas” when combined, will represent the complete Middle Sackville zone and if accepted by Halifax Water, will become the Middle
Sackville zone’s GIS Update Areas. The GIS Update Areas for Middle Sackville must have weekly submissions (using the versioned editing process) for continual review by Halifax Water. The GIS Update Areas (and pilot area) for Middle Sackville must be completed and approved by Halifax Water no later than:

1. Middle Sackville GIS Update Pilot Area: October 19, 2015
2. Middle Sackville GIS Update Area 1 Completion Date: November 6, 2015
3. Middle Sackville GIS Update Area 2 Completion Date: December 10, 2015

The consultant must ensure it has the necessary capacity to deliver on schedule, to each of the Middle Sackville defined areas as outlined in Table 2 – Project Delivery Schedule. Consultants must also clearly illustrate how its resource plan can attain the delivery dates for the GIS updates for Middle Sackville. The consultant must also ensure weekly updates are being performed and submitted weekly to Halifax Water through a Weekly Version Review Request process.

Within the Middle Sackville Zone, Halifax Water requires the Consultant to deliver first on the defined pilot area. The Middle Sackville zone’s *pilot area has been predefined by Halifax Water. The consultant must take extra care when writing its response, to ensure its proposed delineated “GIS Update Areas” do not overlap with the pilot area. For more details on the delivery schedule for the Middle Sackville Zone, refer to Table 2 – Project Delivery Schedule.

*Pilot Area: If at any point Halifax Water determines a pilot area is not required, the associated cost will be removed from the project budget.

3.2 Geographic Exemptions

3.2.1 Hydrant Data Collection Project

Halifax Water is initiating a Hydrant Data Collection Project to locate by survey approximately 2300 hydrants that are not currently spatially accurate. These 2300 hydrants are distributed throughout the HRM. The Hydrant Data Collection Project (not this project) will result in collecting hydrant location data only. Consultants must ensure their proposals take into account that the location information only (i.e. spatial data acquisition) for these hydrants is OUT OF SCOPE. Note that the attributes (non-spatial data) for these hydrants are WITHIN SCOPE for the Infrastructure Data Acquisition and SDE Database Updates Project and the non-spatial data will need to be collected and populated into the SDE database following the versioned editing process.

3.2.2 Renewal Project Areas (2015/2016)

Halifax Water is continuously enhancing, remediating or renewing its linear infrastructure. For the Central Region, the following are planned renewals for 2015/2016. Since all renewal projects are proactively collecting field information and developing up to date record drawings for inclusion into GIS, there generally is
no need for the Consultant to perform field work or re-collect any of this information. Halifax Water will keep the Consultant informed of any changes to these planned renewals and as a result may put them in scope. Should some of the planned renewals be modified, and need to be brought into scope for this project, then at that time, a change request could be developed. For the purpose of this RFP, consider the items in Table 1 as out of scope.

Table 1 – Out of Scope Planned Renewal Areas for 2015/2016.

<table>
<thead>
<tr>
<th>Street</th>
<th>Limits</th>
<th>WATER</th>
<th>STORMWATER</th>
<th>WASTEWATER</th>
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<tbody>
<tr>
<td></td>
<td></td>
<td>Renewal Length (m)</td>
<td>Renewal Length (m)</td>
<td># of Laterals to be replaced</td>
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<tr>
<td>First Ave.</td>
<td>Bedford HWY to Pine Street</td>
<td>370 m</td>
<td>0 m</td>
<td>9</td>
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<td>Sackville Cross Road Bridge</td>
<td>Bridge Replacement</td>
<td>40 m</td>
<td>0 m</td>
<td>0</td>
</tr>
<tr>
<td>Alder Crescent - Wastewater Collection</td>
<td>Riverside Drive to drainage outlet</td>
<td>200 m</td>
<td>0 m</td>
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</tbody>
</table>

3.2.3 Undeveloped, Private Lands and Currently Updated Areas

Any locations that are planned for remediation, undeveloped, private, or updated are considered out of scope for this project and should not be included in your technical or financial proposal. The undeveloped locations are also out of scope.
4.0 GENERAL METHODOLOGY

This project includes updating water, wastewater and stormwater infrastructure data in the corporate GIS database specific to the zones identified in section 3.1. The project includes field data collection of features, compilation and processing of field data used in conjunction with other materials provided by Halifax Water such as hard copy maps, scanned record drawings, survey files, etc. Often the consultant will need to combine information that is collected in the field with Halifax Water supplied source material (e.g. record drawings, data from Halifax Regional Municipality, schematics, survey files, etc.) in order to develop a suitable SDE database.

To proactively assist proponents in their bids, Halifax Water has also included (Appendix C) past questions and responses for similar GIS update projects performed by Halifax Water. This is not a substitute for any clarifications or questions consultants may have during the bidding period.

From a methodology perspective, field data collection could be performed through traditional survey methods or through GPS data collection methods to accuracy specifications for georeferencing and coordinate accuracy defined by Halifax Water (Appendix D).

All data collected, analyzed, compiled and entered into Halifax Water’s SDE Database must meet Halifax Water specifications (Appendix D). Halifax Water also performs different levels of Quality Control Checks. Quality Check procedures will be performed weekly on Version Review Request received from the successful proponent. As data passes Halifax Water’s Quality control process or conflicts are identified approval or rejection feedback will be communicated to the consultant. Halifax Water will process invoice payments when an entire GIS update Area has been fully approved by Halifax Water.

4.1 Pilot Areas

A part of Halifax Water’s general approach is the execution of pilot projects on smaller, yet representative areas to acquire an understanding of the complexity of proximity infrastructure. It also serves as a tool to streamline other project business activities such as the communication process, data transfer process, the version editing process, etc. between the consultant and Halifax Water. The intent of conducting pilot area activities is to identify anomalies and challenges that may exist in these areas. It is not an evaluation of the scope of work, but a path to identifying improved technical workflow and improved communications before executing on full project areas. If a consultant wishes to perform activities on this project in parallel with the pilot area in question before the pilot project deliverables are approved by Halifax Water, then the onus is on the consultant to perform any necessary “rework” at their own expense, while not jeopardizing the delivery schedule as identified in Table 2 – Project Delivery Schedule.

5.0 CONSULTANT ACTIVITIES AND DELIVERABLES
5.1 Activity Name: Project Administration / Management

The successful proponent shall be responsible for all aspects of coordination and consultancy project management and shall designate, in writing, a Project Manager (preferably with a PMP designation). All coordination of services between Halifax Water and the successful proponent shall be the responsibility of the respective managers. The Halifax Water Project Manager is the primary contact for the Consultant’s Project Manager.

The primary purpose of the consultant’s project administration / management is to keep the project within scope, budget, and on schedule and to ensure that appropriate quality control / quality assurance practices are used to provide the best product possible to Halifax Water.

(a) Primary tasks include:

i. Confirming client requirements and objectives at project outset.
ii. Working with the Halifax Water Project Manager, the Consultant Project Manager is expected to initiate and coordinate meetings including the project kick-off meeting. The project kick-off meeting/presentation must layout the approach and methodology, any foreseen issues, and have all relevant project team members in attendance. The Consultant Project Manager must collaborate with the Halifax Water Project Manager on the layout and structure necessary for the kick off session and on all Technical Sessions.
iii. Sending weekly Version Review Request to the Halifax Water Project Manager.
iv. Maintaining all project documentation;
v. Using Halifax Water’s Project Status Reporting template, meet with the Halifax Water Project Manager weekly. Project status reporting must be provided to the Halifax Water Project Manager 24 hours in advance of regular project status update meetings. The updates will be focused around details outlined in the Project Status report template.
vi. Updates (based on Halifax Water’s Project Status Reporting Template) will need to include a general description of project health for the week in question, identification of issues, planned start and finish dates in relation to actuals, deliverables named, delivery dates, milestones, and planned budget spend versus actual budget spend. The project schedule (developed in Microsoft Project) must also align to the project status reporting details to ensure the status reporting is reflective of the work being performed.

vii. Schedule, facilitate and record weekly meetings with the Halifax Water Project Manager and relevant stakeholders throughout the project lifecycle.

viii. Maintain and manage a risk registry associated with the project.
ix. Proactive and thorough communication with Halifax Water throughout the duration of the project.

x. Manage consultant’s project scope, schedule, budget & quality control.

xi. Ensure any project changes (using Halifax Water’s Change Control process) are discussed and approved by Halifax Water in advance of proceeding with the work.
(b) Key deliverables include:
   i. Signed data licensing agreement between the consultant and Halifax Water and Halifax Regional Municipality (HRM) if applicable.
   ii. Documentation on project methodology including survey methods, GIS data build procedures and quality control process.
   iii. Documentation of any project changes (scope, schedule, budget & quality impacts) including correspondence reflecting Halifax Water’s approval prior to proceeding with the proposed changes.
   iv. Weekly Project Status reports.
   v. Weekly meeting with Halifax Water Project Manager.

5.2 Activity Name: Acquire Approvals/Permits

The purpose of this activity is to ensure all pertinent legislation is followed and the necessary approvals are in place in a timely manner.

(a) Primary tasks include:
   i. Identify & obtain the appropriate approvals required for this project. Scope to include: compilation of application, obtain permission to act as owner’s representative in this regard, submit application including all fees, follow up and supply additional information to authority as required, and receive approval.
   ii. Consult with all relevant approval authorities to ensure the approval requirements are incorporated into the design in the most cost-effective manner.
   iii. Meet with all approval agencies as needed.
   iv. Obtain and provide to the Halifax Water Project Manager, all Streets and Services Permit from Halifax Regional Municipality specific to the on-street work for this project.

(b) Key deliverables include:
   i. Documented legislation & approvals required for this project.
   ii. Final approval certificates or authorizations from the relevant approval authority including all supporting documentation (environmental mitigation plans, drawings, reports, etc.).
   iii. Street and Services Permit from HRM.
5.3 **Activity Name: Kick Off Session (Halifax Water)**

The primary purpose of this activity to ensure the consultant’s team has a clear understanding of the project technicalities, consultant’s and Halifax Water’s project expectations, deliverables, frequency of versioned editing events, the consultant’s and Halifax Water’s QC process, the communication protocol, and the issue resolution process. A kick-off presentation slide deck must be prepared by the successful proponent and forwarded to Halifax Water 48 hours in advance of the kick off session. Halifax Water will incorporate its slide deck into the presentation and jointly present with the successful proponent. The kick off session will also be an opportunity for the consultant to review the water, wastewater, and stormwater data models (Water Data Model and Sewer Data Model). This will not be a teleconference environment. Key participants including key field staff and resources performing versioned editing must be in attendance.

**(a) Primary Tasks include:**

i. Reviewing delivery schedule and project approach.

ii. Reviewing project issues resolution process.

iii. Reviewing project change request process.

iv. Reviewing expected deliverables, deliverable quality, and deliverable schedule.

v. Reviewing expectations (Halifax Water and Consultant).

vi. Reviewing the versioned editing process.

vii. Reviewing the Water Data Model and the Sewer Data Model with consultant and clarify any issues.

viii. Reviewing pilot area record drawings and their nomenclature.

5.4 **Activity Name: Field Data Collection (Pilot Area)**

The purpose of this task is to locate and populate features and attributes (through versioned editing) within the project area to be used for the building of the pipe network for the water, wastewater and stormwater systems. The field data will provide some of the necessary inputs for the pilot area.

**(a) Primary Tasks include:**

i. Compilation of plans for survey planning and tracking.

ii. Traffic control plan preparation and survey planning. Traffic control will be the responsibility of the survey Consultant. **Survey Consultant must follow Nova Scotia Department of Labour Safety Standards for on street work.**

iii. Obtain and provide to the Halifax Water Project Manager any necessary permits for this type of work.

iv. Topographical survey of Halifax Water infrastructure, coding features using Halifax Water feature codes (*Appendix E*).

**(b) Key deliverables include:**

i. Documentation of missing features (gaps) which were not picked up by the survey.
ii. A Pilot Area Summary and Clarification Report.
iii. Verification from the consultant that any potential streamlining of record drawing analysis process has been streamlined and will be utilized in the remainder of the project.
iv. Verification from the consultant that the consultant has a clear understanding of the Version Review Request process.
v. Verification from the Consultant that the communication process and structure between the Consultant and Halifax Water has been defined and documented.

5.5 Activity Name: Perform Record Organization & Compilation

The purpose of this task is to compile and organize all hard copy and electronic record information which will assist in the populating of the SDE database (through versioned editing) for the pilot project area.

(a) Primary Tasks include:
i. Receiving the following records from Halifax Water:
   a. GIS data extract including street centerline, civic numbers, buildings, road features, hydrography and possibly other layers.
   b. A GIS data extract of the representative pilot project area for water, wastewater, and stormwater feature datasets.
   c. AutoCAD schematic of water system.
   d. Hard copy (scanned images) of historical record drawings for study area (may be some gaps).
   e. Service record database (point features) containing some attributes, basic location sketches for the water services.
   f. Scanned images/or hard copy of the sewer service records.
   g. Other maps/sketches which are available of the representative pilot project area.

(b) Key deliverables include:
i. A Traceability Report that identifies the source of all information used to populate the SDE database; for any feature in the SDE database, there should be a link back to a record or code which identifies the source of the information.
5.6 Activity Name: Pilot Area SDE Database Build/Population (1 Pilot Area SDE Database for Bedford 4 and 1 Pilot Area SDE Database for Middle Sackville)

The purpose of this activity is to give the successful proponent an opportunity to perform versioned editing in the SDE database for the pilot areas so a refined process can be applied to the remainder of the project.

(a) Primary Tasks include:
   i. Using the version editing process, compile and populate records (hard copy and electronic) into a pilot area SDE database submission for the pilot project area.
   ii. Using the versioned editing process build and populate the pilot area SDE database (i.e. from field survey, record drawings, and other sources) that is inclusive for water, wastewater and stormwater features.
   iii. Building and populating data into the pilot area SDE database for pipe networks for water, wastewater and stormwater systems.
   iv. Building and populating data into the pilot area SDE database for supporting infrastructure such as hydrants, valves, manholes, catchbasins, inlets, outlets, chambers, and service laterals.
   v. Performing data entry and population (versioned editing) into the pilot area SDE database on drawing asset tables with drawing numbers, descriptions and other attributes.
   vi. Performing versioned editing and submit data for review and eventual acceptance by Halifax Water (i.e. acceptance is granted upon passing Halifax Water’s QC process). Re-submissions (without impacting other deliverable timelines) will be required until Weekly Version Review Requests are all defect-free. To be considered for acceptance into the QC process, each weekly submission must be defect free and also submit the following (to Halifax Water FTP Site) “supplementary information”:
      - The Record Drawings used specifically for the pilot area in question.
      - An Area Specific Questions Report that list of all questions (Halifax Water Template) asked of Halifax Water and the response given to each question.
      - The correct boundary file for the pilot area (.shp file format).
      - A Consultant approved/signed by the Project Manager, (item by item) “checklist” of their quality control checks applied to the pilot area.
   vii. Attending Pilot Area Technical Session with Halifax Water to ensure all communications, technical processes, and expected state of deliverables is well defined).

(b) Key deliverables include:
   i. Data submissions using the versioned editing process in conjunction with Halifax Water’s Weekly Version Review Request process.
   ii. Submission of a Pilot Area Summary and Clarification Report (1 week before the scheduled Pilot Area Technical Session) that outlines any technical or
administrative questions in advance of the Technical Session. This document will drive the Technical Session Agenda.

iii. A realigned methodology (if required) based on the pilot area results.
iv. Submission of minutes specific to the Pilot Area Technical Session discussion including assigned actions and action owners and expected action completion date.

5.7 **Activity Name: Infrastructure Data Acquisition (Survey) – (Remaining Project Areas for Bedford 3 & 4, Lower Sackville, and Middle Sackville)**

The purpose of this activity is to locate and through versioned editing populate features in the building and populating of data for the pipe network for the water, wastewater and stormwater systems. The field data will provide some of the inputs necessary for the project.

(a) **Primary Tasks include:**
   i. Compilation of plans for survey planning and tracking.
   ii. Traffic control plan preparation and survey planning. Traffic control will be the responsibility of the survey Consultant. **Survey Consultant must follow Nova Scotia Department of Labour Safety Standards for on street work.**
   iii. Obtain and provide to the Halifax Water Project Manager any necessary permits for this type of work.
   iv. Topographical survey coding features using Halifax Water feature codes.

(b) **Key deliverables include:**
   i. Survey point file in format defined by Halifax Water.
   ii. Documentation of missing features (gaps) which were not picked up by the survey.
5.8 **Activity Name:** Apply the Versioned Editing Process to Create SDE Databases
(Bedford 3 & Bedford 4, Lower Sackville, and Middle Sackville)

The purpose of this activity is to build/populate the interim Geodatabases (using versioned editing) for the remainder of the project areas that also incorporate the lessons learned from the Pilot Area results.

(a) **Primary Tasks include:**

i. Compilation and population of records (hard copy and electronic) for the pilot project area.

ii. Continual communication with Halifax Water technical resources to ensure there is a clear understanding on any issues around the infrastructure layout, schemas, data collection methods, etc.

iii. Continual GIS update using versioned editing to build and populate the SDE database (i.e. from field survey, record drawings, and other sources) that is inclusive of water, wastewater and stormwater features from either field sources, record drawing sources, paper maps, etc.

iv. Using version editing build and populate the SDE database with supporting infrastructure such as hydrants, valves, manholes, catchbasins, inlets, outlets, chambers, service laterals, drawing asset tables with drawing numbers, descriptions and other attributes (*Appendix D*).

v. Submitting Weekly Version Review Request that will trigger Halifax Water’s QC process. Other related information as define below must also be included as (FTP Site upload) “supplementary information”:

   - The Record Drawings related to the areas that have undergone edits.
   - An *Area Specific Questions Report* that list of all questions (Halifax Water Template) asked of Halifax Water and the response given to each question. This report must be specific to the area and edits in question.
   - The correct boundary file for GIS update Area (.shp file format).
   - A consultant approved/signed (item by item) “checklist” of their quality control checks applied to the submission.

vi. Re-submitting rejected data through the same versioned editing process.

(b) **Key deliverables include:**

i. Submission and/or resubmission of data using the Version Review Request process including supplementary information.
5.9 **Activity Name: Project Close Out**

This activity involves an official lessons-learned session (1/2 day) with the consultant at a Halifax Water site. It will also serve as final sign off on project closure that will lead to the release of the 10% holdback. A Project Closure meeting will be held on the same day prior to the lessons-learned session.

(a) **Key deliverables include:**

i. *Finalized sign off (Halifax Water and Consultant) on a Project Closure Document.*

ii. *A completed online lessons learned survey by all Consultant project staff, including sub-contractors.*

iii. *Participate in a structured Lessons Learned session.*
6.0 **DELIVERY SCHEDULE**

To ensure effective delivery of this project, Halifax Water, also requires the following as part of your Technical proposal submission:

- Police Record Checks (Appendix F), for all resources (Consultant or sub-contractor) scheduled and proposed to work on this project.
- Proof of current professional liability insurance covering the services described in this project.
- A contact list(s) (first name, last name, project title, primary contact number, email address) of all proposed project participants.
- Contact name(s), primary contact email address of the individual(s) that will be responsible for accessing and downloading information from Halifax Water’s FTP site.
- A proposed Safety Plan that clearly articulates the protocol and procedures to be used while performing field work.

Halifax Water expects that the Consultant’s proposal will clearly articulate how the delivery schedule identified below will be met (*Table 2 – Project Delivery Schedule*). The Consultant must ensure the response clearly identifies resources by name, project role, and project responsibility.

The Consultant’s proposal (specifically its resource plan) must also take into consideration inclement weather, illness, vacation or any other event that may impact the delivery schedule (*Table 2 – Project Delivery Schedule*). This must be clearly defined in your proposal in a section called “Delivery Schedule – Risk Mitigation Plan”.

The last version review request of any area must meet the delivery dates specific to each zones completion.
Table 2 – Project Delivery Schedule

Note: Edited Versions will need to be submitted weekly with the last version being submitted for the Area no later than 9:00 am AST of the defined Delivery Date. The “Area” must be completed with the last version.

<table>
<thead>
<tr>
<th>ITEM</th>
<th>OWNER</th>
<th>LATEST ACCEPTABLE DELIVERY DATE</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>RFP PREPARATION AND DELIVERY</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>RFP issued to NS Tenders Site</td>
<td>Halifax Water</td>
<td>June 4, 2015</td>
</tr>
<tr>
<td>Question period commences</td>
<td>Halifax Water</td>
<td>June 4, 2015</td>
</tr>
<tr>
<td>Non mandatory pre-proposal meeting</td>
<td>Halifax Water</td>
<td>June 11, 2015</td>
</tr>
<tr>
<td>Question period ends (2:00 pm AST)</td>
<td>Halifax Water</td>
<td>June 17, 2015</td>
</tr>
<tr>
<td>RFP close (2:00 pm AST)</td>
<td>Halifax Water</td>
<td>June 25, 2015</td>
</tr>
<tr>
<td>RFP evaluation ends</td>
<td>Halifax Water</td>
<td>July 2, 2015</td>
</tr>
<tr>
<td>RFP award</td>
<td>Halifax Water</td>
<td>July 3, 2015</td>
</tr>
<tr>
<td>Sign Data License Agreement(s) – Halifax Water and HRM</td>
<td>Halifax Water, HRM, Consultant</td>
<td>July 6, 2015</td>
</tr>
<tr>
<td>Sign contract</td>
<td>Halifax Water, Consultant</td>
<td>July 6, 2015</td>
</tr>
<tr>
<td>Provide project documentation including initial record drawings</td>
<td>Halifax Water</td>
<td>July 6, 2015</td>
</tr>
<tr>
<td>Conduct Kick Off / Technical Session Meeting (Full day session)</td>
<td>Halifax Water, Consultant</td>
<td>July 10, 2015</td>
</tr>
<tr>
<td><strong>BEDFORD 3 AND 4 (1 PILOT AREA, 3 GIS UPDATE AREAS)</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>PILOT SUBMISSION</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Complete field and office acquisition for pilot area (Bedford 3 and 4) and finalize versioned editing for Pilot Area</td>
<td>Consultant</td>
<td>July 24, 2015 (Submission must be no later than 9:00 am AST)</td>
</tr>
<tr>
<td>Finalize QC, provide feedback</td>
<td>Halifax Water</td>
<td>July 28, 2015</td>
</tr>
<tr>
<td>Conduct Pilot Area Results Technical Session</td>
<td>Halifax Water</td>
<td>July 29, 2015</td>
</tr>
<tr>
<td>Finalize versioned editing based on QC results</td>
<td>Consultant</td>
<td>July 31, 2015 (Submission must be no later than 9:00 am AST)</td>
</tr>
<tr>
<td><strong>GIS UPDATE AREA 1</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Submit weekly version review request and finalize last weekly version submission by August 14, 2015</td>
<td>Consultant</td>
<td>August 14, 2015 (Last weekly version submission must be no later than 9:00 am AST)</td>
</tr>
<tr>
<td>Finalize QC, provide feedback</td>
<td>Halifax Water</td>
<td>August 18, 2015</td>
</tr>
<tr>
<td>Finalize versioned editing based on QC results</td>
<td>Consultant</td>
<td>August 21, 2015 (Last weekly version submission must be no later than 9:00 am AST)</td>
</tr>
<tr>
<td>GIS UPDATE AREA 2</td>
<td></td>
<td></td>
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<tr>
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</tr>
<tr>
<td>Submit weekly version review request and finalize last weekly version submission by August 14, 2015</td>
<td>Consultant</td>
<td>August 14, 2015 (Last weekly version submission must be no later than 9:00 am AST)</td>
</tr>
<tr>
<td>Finalize QC, provide feedback</td>
<td>Halifax Water</td>
<td>August 18, 2015</td>
</tr>
<tr>
<td>Finalize versioned editing based on QC results</td>
<td>Consultant</td>
<td>August 21, 2015 (Last weekly version submission must be no later than 9:00 am AST)</td>
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<table>
<thead>
<tr>
<th>GIS UPDATE AREA 3</th>
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<tbody>
<tr>
<td>Submit weekly version review request and finalize last weekly version submission by August 14, 2015</td>
<td>Consultant</td>
<td>August 14, 2015 (Last weekly version submission must be no later than 9:00 am AST)</td>
</tr>
<tr>
<td>Finalize QC, provide feedback</td>
<td>Halifax Water</td>
<td>August 18, 2015</td>
</tr>
<tr>
<td>Finalize versioned editing based on QC results</td>
<td>Consultant</td>
<td>August 21, 2015 (Last weekly version submission must be no later than 9:00 am AST)</td>
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</table>

<table>
<thead>
<tr>
<th>LOWER SACKVILLE (0 PILOT AREAS, 3 GIS UPDATE AREAS)</th>
<th></th>
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</tr>
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<tbody>
<tr>
<td>GIS UPDATE AREA 1</td>
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<tr>
<td>Submit weekly version review request and finalize last weekly version submission by September 18, 2015</td>
<td>Consultant</td>
<td>September 18, 2015 (Last weekly version submission must be no later than 9:00 am AST)</td>
</tr>
<tr>
<td>Finalize QC, provide feedback</td>
<td>Halifax Water</td>
<td>September 23, 2015</td>
</tr>
<tr>
<td>Finalize versioned editing based on QC results</td>
<td>Consultant</td>
<td>September 28, 2015 (Last weekly version submission must be no later than 9:00 am AST)</td>
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</tbody>
</table>

<table>
<thead>
<tr>
<th>GIS UPDATE AREA 2</th>
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</thead>
<tbody>
<tr>
<td>Submit weekly version review request and finalize last weekly version submission by September 18, 2015</td>
<td>Consultant</td>
<td>September 18, 2015 (Last weekly version submission must be no later than 9:00 am AST)</td>
</tr>
<tr>
<td>Finalize QC, provide feedback</td>
<td>Halifax Water</td>
<td>September 23, 2015</td>
</tr>
<tr>
<td>Finalize versioned editing based on QC results</td>
<td>Consultant</td>
<td>September 28, 2015 (Submission must be no later than 9:00 am AST)</td>
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<table>
<thead>
<tr>
<th>GIS UPDATE AREA 3</th>
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<th></th>
</tr>
</thead>
</table>
| Submit weekly version review request and finalize last weekly version submission by October 5, 2015 | Consultant | October 5, 2015 (Last weekly version submission must be no later
<table>
<thead>
<tr>
<th>Task</th>
<th>Party</th>
<th>Date</th>
</tr>
</thead>
<tbody>
<tr>
<td>Finalize QC, provide feedback</td>
<td>Halifax Water</td>
<td>October 9, 2015</td>
</tr>
<tr>
<td>Finalize versioned editing based on QC results</td>
<td>Consultant</td>
<td>October 16, 2015</td>
</tr>
<tr>
<td></td>
<td></td>
<td>(Submission must be no later than 9:00 am AST)</td>
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</table>

**MIDDLE SACKVILLE (1 PILOT AREA, 2 GIS UPDATE AREAS)**

**PILOT SUBMISSION**

<table>
<thead>
<tr>
<th>Task</th>
<th>Party</th>
<th>Date</th>
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</thead>
<tbody>
<tr>
<td>Complete field and office acquisition for pilot area (Middle Sackville) and finalize versioned editing for Pilot Area</td>
<td>Consultant</td>
<td>October 5, 2015</td>
</tr>
<tr>
<td></td>
<td></td>
<td>(Last weekly version submission must be no later than 9:00 am AST)</td>
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<tr>
<td>Finalize QC, provide feedback</td>
<td>Halifax Water</td>
<td>October 13, 2015</td>
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<tr>
<td>Conduct Pilot Area Technical Session</td>
<td>Halifax Water</td>
<td>October 15, 2015</td>
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<tr>
<td>Finalize versioned editing based on QC results</td>
<td>Consultant</td>
<td>October 19, 2015</td>
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**GIS UPDATE AREA 1**

<table>
<thead>
<tr>
<th>Task</th>
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<th>Date</th>
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<tbody>
<tr>
<td>Submit weekly version review request and finalize last weekly version submission by November 2, 2015</td>
<td>Consultant</td>
<td>November 2, 2015</td>
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<tr>
<td></td>
<td></td>
<td>(Last weekly version submission must be no later than 9:00 am AST)</td>
</tr>
<tr>
<td>Finalize QC, provide feedback</td>
<td>Halifax Water</td>
<td>November 4, 2015</td>
</tr>
<tr>
<td>Finalize versioned editing based on QC results</td>
<td>Consultant</td>
<td>November 6, 2015</td>
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**GIS UPDATE AREA 2**

<table>
<thead>
<tr>
<th>Task</th>
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<th>Date</th>
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<tbody>
<tr>
<td>Submit weekly version review request and finalize last weekly version submission by November 25, 2015</td>
<td>Consultant</td>
<td>November 25, 2015</td>
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<tr>
<td></td>
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<td>(Last weekly version submission must be no later than 9:00 am AST)</td>
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<tr>
<td>Finalize QC, provide feedback</td>
<td>Halifax Water</td>
<td>December 2, 2015</td>
</tr>
<tr>
<td>Finalize versioned editing based on QC results</td>
<td>Consultant</td>
<td>December 8, 2015</td>
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<tr>
<td></td>
<td></td>
<td>(Submission must be no later than 9:00 am AST)</td>
</tr>
<tr>
<td>Project Close Out</td>
<td>Halifax Water</td>
<td>December 10, 2015</td>
</tr>
</tbody>
</table>
7.0 INFORMATION FOR PROPOSED

7.1 Proposal Submission

The response to this RFP shall be submitted using the **two-envelope system** as follows:

- The technical proposal shall include a searchable PDF electronic file, and five (5) bound copies of the proposal, one (1) marked “ORIGINAL” and four (4) marked “COPY” - clearly marked as “TECHNICAL”. Cost information shall not be included in the Technical portion of the submission.

- The financial proposal shall be submitted in a separate, sealed envelope (one copy only) and clearly labeled “FINANCIAL”.

7.1.1 Technical Proposal

The Proposal shall include the following (5.1 to 6.0 inclusive) as a minimum; failure to do so may be cause for rejection of the proposal.

7.1.1.1 General

Consultant shall provide the name of the firm, office address, telephone number and facsimile number.

7.1.1.2 Project Understanding and Implementation Plan

The proposal shall include a section that clearly demonstrates the proponent’s understanding of the assignment and the deliverables requested. Note: Halifax Water does not want to see submissions that simply rewrite the content of this RFP. Proposals should include as a minimum:

(a) The Proponent’s understanding of the activities and deliverables quoted in the RFP and for the nature of the work required to meet the project objectives.

(b) The proposed approach / methodology to be used to meet the project objectives and deliverables.

(c) The proposed work program and schedule that identifies start and end times and key milestones (i.e. a MS Project 2010 .MPP file in Gantt chart view that identifies tasks and sub task names, duration, work, start, finish, predecessors, and resource names). (Note: NO cost or rates information shall be shown in the .MPP file submitted in the TECHNICAL proposal. Costs may only be shown in the FINANCIAL proposal. Failure to adhere to this requirement will be grounds for
disqualification of the proposal).

(d) A Time Task Matrix showing the breakdown of activities and associated resource hours for each team member including all sub-consultant team members. (Note: NO cost information shall be shown in the Time-Task matrix submitted in the TECHNICAL proposal. Costs may only be shown in the FINANCIAL proposal. Failure to adhere to this requirement will be grounds for disqualification of the proposal.)

7.1.1.3 **Company Experience and Project Team Qualifications**

The proposal shall include information on the key project resources including:

(a) Identification of the consultant’s Project Manager and include a resume. Provide brief explanation as to why this person is appropriate for this role including recent project management experience that aligns to the approach of PMBOK.

(b) A list of all other project resources complete with **resumes** for key resources.

(c) Names of sub-consultant firms to be retained to complete this assignment including a description of the merits of their participation and a description of their qualifications.

(d) A list of the sub-consultant personnel and associates that will be performing various tasks for this assignment. Provide resumes for key sub-consultant resources.

(e) A project team organizational chart that identifies the lead resource and their **project title** for each component of the project. These components should align to the same components identified in the Microsoft Project 2010 .MPP file.

(f) For each of the key resources provide, on a quarterly basis breakdown, the hours currently committed to other duties and the hours proposed to be allocated to this project.

(g) A minimum of three (3) reference projects and a maximum of five (5) reference projects. At a minimum the reference information for each project is to include all of the following information:

1. A project description.
2. A section that speaks to the relevant value/knowledge gain of how the reference project brings value to this project.
A contact person and phone number for the owner of the project.

The value of the original consultant fee contract and the final consultant fee.

The estimated project cost at time of tender, the awarded tender value, and the final project cost, and

The key project schedule dates stated in the original consultant proposal/contract and the actual dates achieved.

Proponent should assume that the references will be contacted.

Specific to this assignment, the project team for this assignment shall consist of personnel skilled and experienced in the following activities:

The project team should include the following skills and experience:

- Strong GIS database skills including experience with the ESRI ArcSDE versioned editing process.
- Field data collection experience including practical knowledge of the latest GPS survey methodologies.
- System knowledge for water, wastewater and stormwater systems that would aid in the building of the system networks.

The proposal must outline the resources to be used for this assignment, provide an explanation of the project resources’ direct experience with the skills noted above, and identify specific projects and dates in which these skills were demonstrated. Resumes for the identified project resources may be submitted as part of the attachments/appendices.

In the event there would be a change in the personnel named and assigned to perform the services under the contract, the consultant shall be required to submit, for approval to Halifax Water, the credentials and resumes of the alternate personnel the consultant proposes to use in the performance of the contract. Substitutions of personnel from those identified in the response to the RFP must have like qualifications of the listed personnel. Changes must be submitted in writing by the proponent and approved in writing by Halifax Water.

7.1.1.4 Project Management

The proposal shall include information to help Halifax Water understand and evaluate the proponent’s approach to managing projects including:

(a) Approach to project planning and control.

(b) Approach to management of the project scope, schedule and cost.
(c) Approach to GIS project management and the formal Change Order process as it relates to changing conditions, owner requests, and proposal errors/omissions.

(d) Approach to quality management.

(e) Approach to human resource management.

(f) Approach to communication management within the overall project team and with external stakeholders. If part or all of the team is remote from Halifax provide specifics as to how this will be managed. Regular status reports should be a part of the Proponent’s project management toolbox.

(g) Approach to risk management.

(h) Approach to procurement management.

(i) Corporate and project approach to occupational health and safety.

7.1.1.5 Confidentiality
Submit confidentiality statement (see section 9.1.5)

7.1.1.6 Insurance
The Consultant is to provide professional liability insurance covering the services described in the agreement and the insurance policy is to provide coverage for an amount not less than $2,000,000. Coverage will be maintained continuously from the commencement of the Services and continue for 12 months following completion of the services.

7.1.1.7 Acknowledgement
A complete acknowledgement, in the form set forth in Proponent’s Submission Sheet confirming that the Proponent acknowledges and agrees to all the conditions of participation in the RFP.

7.1.1.8 Assumptions
The proponent shall clearly identify all assumptions made in the preparation of the proposal. Additionally, the proponent is encouraged to outline other work considered essential to the successful completion of this project that was not identified by Halifax Water in this RFP.
7.1.2 Financial Proposal

Submit the Financial Proposal in a separate, sealed envelope, clearly marked “Financial Proposal”. The proponent shall submit a fee schedule for the major components of the assignment (as shown in section 7.1.3 Financial Proposal Form) and the associated subtasks for each component.

The financial proposal must clearly provide the following:

(a) For each component and associated subtasks identify the individuals proposed to accomplish the work, their associated hours and their hourly rates.

(b) Total all inclusive cost for the project including billable expenses and identify this proposed Maximum Fee.

(c) Prices are to be quoted in Canadian dollars; inclusive of duty, where applicable; exclusive of Harmonized Sales Tax (HST).

(d) Price may not be the determining factor for award. Halifax Water may negotiate a final offer with the selected consultant.

7.1.3 Financial Proposal Form

This Form shall be filled out and included in the Financial Proposal envelope. Failure to submit this form will be grounds for disqualification.

<table>
<thead>
<tr>
<th>PROPOSED NAME:</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>The fee for the project is broken-down as follows:</td>
<td></td>
</tr>
<tr>
<td>ITEM</td>
<td>BUDGET (Excluding HST)</td>
</tr>
<tr>
<td>ZONE: BEDFORD 3 &amp; BEDFORD 4</td>
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</tr>
<tr>
<td>Project Administration/Management/Technical Sessions</td>
<td>$</td>
</tr>
<tr>
<td>Approvals/Permits</td>
<td>$</td>
</tr>
<tr>
<td>Field Data Collection (Survey)</td>
<td>$</td>
</tr>
<tr>
<td>Record Organization &amp; Compilation</td>
<td>$</td>
</tr>
<tr>
<td>(Halifax Water Approved) SDE database Build/Population (spatial &amp; non-spatial) of Pilot Area</td>
<td>$</td>
</tr>
<tr>
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<td>$</td>
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<tr>
<td>Description</td>
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<tr>
<td>-----------------------------------------------------------------------------</td>
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<td>(Halifax Water Approved) SDE database Build/Population (spatial &amp; non-spatial) of GIS Update Area 2</td>
<td>$</td>
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<tr>
<td><strong>ZONE: LOWER SACKVILLE</strong></td>
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</tr>
<tr>
<td>Project Administration/Management/Technical Sessions</td>
<td>$</td>
</tr>
<tr>
<td>Approvals/Permits</td>
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<td>Field Data Collection (Survey)</td>
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<tr>
<td>Record Organization &amp; Compilation</td>
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<tr>
<td>(Halifax Water Approved) SDE database Build/Population (spatial &amp; non-spatial) of GIS Update Area 1</td>
<td>$</td>
</tr>
<tr>
<td>(Halifax Water Approved) SDE database Build/Population (spatial &amp; non-spatial) of GIS Update Area 2</td>
<td>$</td>
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<tr>
<td>(Halifax Water Approved) SDE database Build/Population (spatial &amp; non-spatial) of GIS Update Area 3</td>
<td>$</td>
</tr>
<tr>
<td><strong>&quot;AREA TOTAL&quot; PROPOSED MAXIMUM FEE FOR LOWER SACKVILLE (EXCLUDING HST)</strong></td>
<td>$</td>
</tr>
<tr>
<td><strong>ZONE: MIDDLE SACKVILLE</strong></td>
<td></td>
</tr>
<tr>
<td>Project Administration/Management/Technical Sessions</td>
<td>$</td>
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<td>Approvals/Permits</td>
<td>$</td>
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<tr>
<td>Field Data Collection (Survey)</td>
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<tr>
<td>Record Organization &amp; Compilation</td>
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<tr>
<td>(Halifax Water Approved) SDE database Build/Population (spatial &amp; non-spatial) of Pilot Area</td>
<td>$</td>
</tr>
<tr>
<td>(Halifax Water Approved) Build/Population (spatial &amp; non-spatial) of GIS Update Area 1</td>
<td>$</td>
</tr>
<tr>
<td>Interim (Halifax Water Approved) Build/Population (spatial &amp; non-spatial) of GIS Update Area 2</td>
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<td><strong>&quot;AREA TOTAL&quot; PROPOSED MAXIMUM FEE FOR MIDDLE SACKVILLE (EXCLUDING HST)</strong></td>
<td>$</td>
</tr>
<tr>
<td><strong>&quot;ALL ZONE TOTALS&quot; PROPOSED MAXIMUM FEE</strong></td>
<td>$</td>
</tr>
</tbody>
</table>
It is noted that if this Request for Proposal process results in a contract that the contracted fee will be considered a maximum fee for each of the zones outlined above. The Consultant will invoice by Halifax Water Approved GIS Update Area, based upon the actual hours required to complete the work and quote hourly rates by zone. The total invoiced is not to exceed the maximum fee for each zone outlined above. This is not a lump sum contract.

7.1.4 **One Response**

Proponent may not submit more than one proposal.

7.1.5 **Address for Submission**

The proposals shall be delivered in a sealed envelope marked “Request for Proposals – Central Region – 2015 Infrastructure Data Acquisition Program P11.2015”, not later than **2:00 pm, Thursday, June 25th, 2015** to:

Michelle Comeau  
Procurement Supervisor  
Halifax Water  
450 Cowie Hill Road  
Halifax, NS B3P 2V3  
Phone: (902) 490-4813

Under no circumstance will proposals received after the Submission Closing Date be accepted.

7.1.6 **Hard Copies**

All proposals must be in hard copy form. No facsimile transmissions will be accepted. However, amendments to the original document will be accepted by facsimile, if received before the Submission Closing Date. Originals must be forwarded to Halifax Water so that they may be attached to the original hard copy for validity.

7.1.7 **Late Submissions**

The date and time of receipt of a Proposal shall be the date and time indicated by Halifax Water’s date and time stamped on the Proposal.

7.1.8 **Addendums to the Request for Proposal**

All revisions to this RFP will be posted in the form of an addendum to the Nova Scotia Procurement Services Web Portal. Prior to the Submission Closing Date,
Halifax Water may revise any provision or part of the RFP.

7.1.9 Request for Clarification

Any proponent who has questions as to the meaning or intent of any part of this RFP or of the project, or who believes this RFP contains an error, inconsistency or omission, should submit a request for clarification. All requests for clarification or inquiries concerning this RFP should be forwarded in writing by email no later than one week prior to the Submission Closing Date, to the Halifax Water representative identified below:

Michelle Comeau
Procurement Supervisor
Halifax Water
450 Cowie Hill Road
Halifax, NS B3P 2V3
Phone: (902) 490-4813
Email: procurement@halifaxwater.ca

All clarifications to this RFP will be posted to the Nova Scotia Procurement Services Web Portal.

Halifax Water will assume no responsibility for oral instructions or suggestions. Halifax Water core hours of operation are Monday to Friday, 8:30 am to 4:30 pm.

7.1.10 Period of Submission Validity

Proposals will be binding for ninety (90) Days: Unless otherwise specified, all formal proposals submitted shall be irrevocable for ninety (90) calendar days following proposal opening date, unless the proponent, upon request of Halifax Water, agrees to an extension.

7.2 Proposal Evaluation

Proposals will be evaluated on the basis of all information provided by the proponent. Each proposal will be reviewed to determine if the proposal is responsive to the submission requirements outlined in the RFP. Failure to comply with these requirements may deem the proposal non-responsive.

In recognition of the importance of the procedure by which a proponent may be selected, the following criteria outline the primary considerations to be used in the evaluation and consequent awarding of this project (not in any order).

These criteria are intended to provide guidance to Halifax Water in determining best
value, as that term is defined in the Nova Scotia Public Procurement Act. Halifax Water reserves the right to award the contract to the qualified firm with the highest assessed or best value proposal.

Selection of a proposal will be based on the following criteria and any other relevant information provided by the proponent in the submission. Halifax Water reserves the right to prioritize and weigh the importance of each sub-criterion within the identified Technical criteria confidentially.

<table>
<thead>
<tr>
<th>Criteria</th>
<th>Weight</th>
<th>Score</th>
</tr>
</thead>
<tbody>
<tr>
<td>Technical</td>
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<td></td>
</tr>
<tr>
<td>Project Understanding and Implementation Plan</td>
<td>30%</td>
<td></td>
</tr>
<tr>
<td>Company Experience and Project Team Qualifications</td>
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<tr>
<td>Project Management</td>
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<tr>
<td><strong>Subtotal - Technical</strong></td>
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<tr>
<td>Financial</td>
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<tr>
<td><strong>Total</strong></td>
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</tr>
</tbody>
</table>

The scoring formula is as follows:

\[
\text{Lowest Proposal Price} \times \text{Available Points} = \text{Financial Score}
\]

Proposal Price

For example, if three bids were received with the following total scores: $77, $85, and $100, the scoring would be as follows:

\[
\frac{77}{77} \times 30\% = 30\% = \text{Financial Score}
\]

\[
\frac{77}{85} \times 30\% = 27.18\% = \text{Financial Score}
\]

\[
\frac{77}{100} \times 30\% = 23.1\% = \text{Financial Score}
\]
$100

7.3 Selection Process

An Evaluation Team comprised of Halifax Water representatives will evaluate responses to the RFP. Proponent may be invited to make a presentation to the Evaluation Team. Proponent must be prepared to make a presentation and must have members of the proposed project team participate in the presentation. The Evaluation Team may use this opportunity to discuss the submitted proposal and request clarification of information provided in the proposal submission. The Proponent is encouraged to provide any additional information that may be relevant in the evaluation of their proposal.

7.4 Award

Provided that at least one of the received proposals meets the approval of the Evaluation Team, a recommendation on Contract award will be made on the basis of the evaluation. All awards are subject to the approval of Senior Management and the availability of funds. No announcement concerning the successful proposal(s) will be made until a complete report is prepared and approved by the appropriate bodies.

Written communication to the Successful Proponent of notification of award before the time of expiration specified by Halifax Water shall result in a binding Contract without further action by either party. Halifax Water may accept an offer whether or not there are negotiations after its receipt. Negotiations conducted after receipt of an offer do not constitute a rejection or counteroffer by Halifax Water.

Neither acceptance of a proposal nor execution of a contract will constitute approval of any activity or development contemplated in any proposal that requires any approval, permit or license pursuant to any federal, provincial, regional or municipal statute, regulation or by-law.

Award of this tender is contingent on project funding approval from the Nova Scotia Utility review Board.
8.0 PROJECT ADMINISTRATION

8.1 Payment

The Consultant shall submit an invoice for Halifax Water approved GIS update Areas and provide those invoices to:

Halifax Water
Attn: Chris Turner (PMP)
GIS Project Updates – Project Manager
PO Box 8388, RPO CSC
Halifax, NS  B3K 5M1
Email: christ@halifaxwater.ca

Halifax Water will pay the Consultant with Halifax Water approved GIS Update Area. Consultant’s invoices must include at a minimum:

- the period of work applicable to the invoice;
- breakdown by task and for each task include a list of team members, their hours and their hourly rates;
- a copy of the Halifax Water Approval letter for the Area being invoiced.
- percentage calculation of the work completed; and
- scanned expenses and applicable taxes included as separate line items.

Invoices beyond the original agreed on value will not be accepted unless written consent from Halifax Water is obtained. Invoices for extra work must be submitted separately and must be accompanied by a written justification of the work. (Note: Written authorization from Halifax Water is required prior to proceeding with any extra work).

Halifax Water will pay invoices up to a maximum of 90% of the fee quoted for a Halifax Water approved GIS Update Area or up to a maximum of 90% of an estimated revised value of the Zone Area (whichever is less). The balance of the fee owing will be paid upon completion of the Zone Area.

The submission of the required written project updates are a mandatory project requirement. Halifax Water will withhold invoice payment if these updates are not provided.

Payment shall be made upon receipt of a proper invoice from the Consultant and authorized by the head of the department or designee. Normal payment terms for the Halifax Water are thirty (30) days from receipt of the invoice.

Halifax Water administers its payables via an electronic payment process known as EDI payment.
GENERAL INFORMATION

8.2 Proponent Responsible for Proposal / No Reliance on Halifax Water

The Proponent accepts sole responsibility for the preparation and submission of its Proposal including satisfying itself as to the requirements of all documents and the submission of materials and the Proposal within the required time frames.

8.3 Rights of Halifax Water

The issuance of this RFP constitutes only an invitation to submit Proposals. It does not commit Halifax Water to enter into an Agreement with any of the Proponent. Halifax Water is not bound to accept any Proposals and may proceed as is, in its sole discretion, determines on receipt of Proposals. The rights reserved by Halifax Water include the right at any time and for whatever reason and without liability to any Proponent to:

(a) conduct investigations with respect to the qualifications and experience of the Proponent and its members;

(b) require one or more Proponent to supplement, clarify, provide additional information in order for Halifax Water to evaluate the Proposal submitted;

(c) waive any defect or technicality in any Proposal received;

(d) reject the Proponent as organized and suggest changes to the Proponent's members prior to the execution of any Agreement;

(e) terminate, in its sole and absolute discretion, any and all subsequent consideration of, or Agreement with, any Proponent, if it believes a change in the membership of the Proponent, from that described in its Proposal, adversely affects the scoring of the Proponent's Proposal or the Proponent's ability to carry out the Engagement in accordance with the terms and conditions stated herein;

(f) supplement, amend, substitute or otherwise modify any part or all of this RFP including by extending any schedule or period of time;

(g) issue one or more addenda to this RFP;

(h) reject any or all Proposals or any portion thereof;

(i) disclose to the public information contained in the Proposals;

(j) suspend, postpone or cancel this RFP in whole or in part with or without substitution of another RFP or proposal process;
(k) take any action affecting this RFP, the RFP process or the Engagement that would be in the best interests of Halifax Water; and

(l) use any concept or approach suggested in any Proposal including its use in negotiating an agreement with the Successful Proponent or any other Proponent.

8.4 **No Liability**

Halifax Water, its management, employees, Consultants and agents accepts no liability for any costs, expenses, damages or otherwise of any Proponent for the proposal response to this RFP.

Halifax Water, its Board of Directors, officers, employees, Consultants and agents accept no liability for any costs, expenses, damages or otherwise of any Proponent in the event the Successful Proponent selected fails to comply with any terms, conditions or requirements of the RFP, any addenda to the RFP or the Engagement Agreement.

8.5 **Disclosure of Information and Communication Procedures**

(a) Disclosure by Halifax Water

Halifax Water will consider all Proposals as confidential, subject to the disclosure requirements imposed by applicable law. Halifax Water will, however, have the right to make copies of all Proposals received for its internal review process and to provide copies to its staff, technical and financial advisors and representatives.

Notwithstanding the foregoing, the Proponent acknowledges and agrees that Halifax Water will not be responsible or liable in any way for any losses that the Proponent may suffer from disclosure of information or materials to third parties.

(b) Disclosure by the Proponent

The Proponent shall not disclose any details pertaining to its Proposal or any part of the selection process to anyone not specifically involved in its Proposal, without the prior approval of Halifax Water. The Proponent shall not issue a news release or other public announcement pertaining to details of its Proposal or the selection process without the prior approval of Halifax Water.

8.6 **Costs and Expenses of the Proponent**

Halifax Water accepts no liability for any costs or expenses incurred by the Proponent in responding to this RFP, responses to clarification requests and re-submittals, potential meetings, tours and interviews, subsequent negotiations, or any other cost incurred prior
to the execution of the Agreement by Halifax Water and the Successful Proponent. By
submitting a Proposal, the Proponent agrees that it shall prepare the required materials and
undertake the required investigations at its own expense and with the express
understanding that it cannot make any claims whatsoever for reimbursement from Halifax
Water for any costs and expenses associated with the RFP process in any manner
whatsoever or under any circumstances including, without limitation, the rejection of all
or any of the Proposals or cancellation of the RFP or the Engagement.

8.7 Clarification of Proposals

Halifax Water is not obliged to seek clarification from the Proponent regarding any aspect
of its Proposal.

Halifax Water shall have the right to request the Proponent to submit information to
clarify or interpret any matters contained in its Proposal and to seek the Proponent's
written acknowledgement of that clarification or interpretation. In addition, Halifax
Water may request supplementary documentation from the Proponent when there is an
irregularity or omission in its Proposal or the documents submitted therewith. The
Proponent should not assume Halifax Water will request clarifications.

Supplementary documentation accepted by Halifax Water and written interpretations that
have been supplied or acknowledged by the Proponent shall be considered to form part of
the Proposal.

8.8 No Conflict of Interest

The Proponent and members of the Proponent are requested to disclose any conflict of
interest, real or perceived, which exists now or which may in the opinion of the Proponent
exist in the future. Halifax Water reserves the right to disqualify the Proponent if, in the
opinion of Halifax Water acting reasonably, it has a conflict of interest, whether such
conflict exists now or arises in the future.

8.9 No Interest in Another Proponent

The Proponent shall not have any interest whatsoever in any other Proponent or in the
Proposal of any other Proponent nor enter into any arrangement, agreement or
understanding either before or after the Submission Date that would have that result.
Provided however, after the Closing Date, the unsuccessful Proponent or members of the
unsuccessful Proponent may, with the consent of Halifax Water, become involved in the
Engagement, provided such involvement is limited solely to acting as a subcontractor to
the Successful Proponent.
8.10 Proponent to Ensure They Understand the Engagement

It is the Proponent's responsibility to ensure that it has all the necessary information concerning the intent and requirements of this RFP and the Engagement. The Proponent is solely responsible for examining and reviewing all documents and information provided or required pursuant to this RFP and for satisfying itself as to all other matters which may in any way affect the Engagement or the cost or time required to complete the Engagement.

Nothing contained in this RFP or in any communications from Halifax Water shall constitute any express or implied warranty or representation by Halifax Water, except as explicitly stated herein and therein.

8.11 Waiver / No Reliance

Halifax Water does not accept responsibility for any information, advice, errors or omissions which may be contained in this RFP or its appendices or any addendum. Halifax Water makes no representation or warranty, either express or implied, in fact or in law, with respect to the accuracy or completeness of this RFP or its appendices or any addendum and Halifax Water shall not be responsible for any action, cost, loss or liability whatsoever arising from the Proponent's reliance on or use of such information or any other technical or historical schedules, data, materials or documents provided by Halifax Water. The Proponent is responsible for obtaining its own independent financial, legal, accounting, engineering and technical advice with respect to any information included in this RFP, its appendices or any addenda or in any documents provided by Halifax Water.

8.12 False or Misleading Information

If there is any evidence of misleading or false information in any Proposal, Halifax Water may reject that Proposal.

8.13 Compliance with Applicable Law

The Proponent shall be responsible, at its expense, for complying with all applicable laws relating to the Engagement and, except as explicitly stated in this RFP, for obtaining, maintaining and complying with all any approvals required for the Engagement.

8.14 Time to be of the Essence

Time shall be of the essence of this RFP and all Proposals.

8.15 Governing Law

This RFP and all activities connected therewith shall be governed in all respects by the
laws of the Province of Nova Scotia and the laws of Canada applicable therein.

8.16 Confidentiality

(a) "Confidential Information" means all information, whether transmitted orally, electronically or in written form, which the Consultant or the Consultant's representatives have received and may receive from Halifax Water for the purposes of the Project and which may include, but is not limited to, all data, reports, interpretations, statements (financial or otherwise), specifications, performance information and records containing or otherwise reflecting information concerning Halifax Water's systems, proprietary designs, equipment, products and / or technical information which the Consultant or the Consultant's representatives have received and may receive in the course of completing the Project.

(b) Halifax Water may, at its sole discretion, disclose Confidential Information to the Consultant or the Consultant's representatives for the purposes of (1) the RFP process and / or (2) the project. Notwithstanding any such disclosure, the Confidential Information shall remain the sole and exclusive property of Halifax Water and Halifax Water shall retain all right, title and interest in and to the Confidential Information. The Consultant and the Consultant's representatives shall use the Confidential Information solely and exclusively for purposes of (1) the RFP process and / or (2) the Project.

(c) Without limiting the generality of the permitted use of the Confidential Information, neither the Consultant nor the Consultant's representatives shall use the Confidential Information for the purpose of achieving any commercial or financial benefit. In addition, neither the Consultant nor the Consultant's representatives shall publish, reproduce, copy, disseminate or disclose the Confidential Information to others without Halifax Water's prior written consent, which consent may be withheld for any reason.

(d) The Consultant's completed report shall be exempt from disclosure under the Freedom of Information and Protection of Privacy Act on the basis that it will include information about Halifax Water's security systems and its disclosure has the potential to pose a significant risk to public health and safety.

(e) The Consultant shall keep a record of all Confidential Information furnished to it and to its representatives and of the location of such Confidential Information. The Consultant shall make every reasonable effort to secure the Confidential Information and the Consultant shall return all Confidential Information provided to the Consultant and its representatives immediately to Halifax Water upon its request and in any event immediately upon completion or cessation of the Project. The Consultant shall submit a statement in this RFP explicitly detailing the measures proposed to achieve this
confidentiality and confirming a commitment to Halifax Water's information security. The Consultant's statement shall include a commitment to ensuring that all representatives comply with and are bound by the terms and conditions of this confidentiality commitment.

8.17 **Police Record Check**

All contractors, Consultants and their employees working for Halifax Water must obtain a “Police Record Check” (PRC). The process for obtaining PRCs is outlined in Appendix F.

8.18 **Standard Form of Contract**

The standard form of contract to be used shall be the Professional Services Agreement engineering agreement attached in Appendix H. This standard form will be edited to fit the proposed project with the selected Consultant after the RFP process. Special conditions specific to this project will be included in the edited form as agreed by Halifax Water and the selected Consultant.
APPENDIX A

A.1 Central Region – Data Collection Zones
A.2 Bedford 3 Zone Map
A.3 Bedford 4 Zone Map With Delineated Pilot Area

Detailed Bedford 4 Pilot Area Map
A.4 Lower Sackville Zone Map
A.5 Middle Sackville Zone Map With Delineated Pilot Area

Detailed Middle Sackville Pilot Area Map
APPENDIX B

Information Available For Reference

To assist with proposal preparation, the following additional information is available for viewing. To schedule a viewing appointment contact Chris Turner at christ@halifaxwater.ca or call 902 237 8558.

Note: Halifax Water will also have the above noted material available at its non-mandatory pre-bid session.

<table>
<thead>
<tr>
<th>Report Title</th>
<th>Consultant</th>
<th>Date</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sample record drawings (10 representative samples)</td>
<td>Halifax Water</td>
<td>various</td>
</tr>
<tr>
<td>AutoCAD schematic of water system.</td>
<td>Halifax Water</td>
<td>current</td>
</tr>
<tr>
<td>Sewer map (old).</td>
<td>Halifax Water</td>
<td>unknown</td>
</tr>
<tr>
<td>Water Data Model (March 2015) and Sewer data Model (January 2015) for viewing water and sewer features, attributes and domains (2 Documents)</td>
<td>Halifax Water</td>
<td>current</td>
</tr>
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</table>
APPENDIX B.1

Sample Record Drawings
### Public Works Department

#### Service Record

**Measurements**
- Main to Street Line: 30'
- Street Line to Building: 28'
- Total Length: 56'
- Size of Main: 8" Concrete
- Size of Service: 8" AC, 4" WC, 3/4" Cu

**Service Installation Costs**
- Date of Installation: July 2/76, June 30/76
- Contractor: G. & R. Kelly
- Contract No.: N.S.H.C.
- Inspected and Approved By: T.G.

**Public Works Job No.: #9 Lot 22 Bedford St.**

---

#### Service Record

**Measurements**
- Main to Street Line: 66'
- Street Line to Building: 28.5'
- Total Length: 94.5'
- Size of Main: 8" Concrete
- Size of Service: 8" Concrete
- Depth at Main: 7' at St. Line, 7' at Bldg.

**Service Installation Costs**
- Date of Installation: September 27, 1973
- Contractor: L. S. L. Construction
- Inspected and Approved By: Tom Guinan

**Public Works Job No.: Lot 9 Oakmount Drive, C-G3**
APPENDIX C

Additional Information Gained From Similar GIS Update Projects

This Appendix contains past and relevant questions for similar GIS update projects performed by Halifax Water. Where applicable the responses may have been modified to ensure they are reflective of this project. This is not a substitute or meant to replace any Request For Clarification.

**Question 1:** We have pipe locating technology that is applied to metal pipes and thus is suited for locating water lines (not sewer lines). Is it HW’s expectation that the pipe locating will be done for just water lines? If so what percentage of the area does it make up? The response will help us estimate project cost more accurately.

**Response 1:** Pipe locating technology will only be used for metal pipes and may be part of the consultant’s technical response to this RFP. No additional costs are billable for use of this technology. However, its use in the methodology may improve technical scoring in the RFP evaluation.

**Question 2:** Should invert information be added through measurements and vertical accuracy?

**Response 2:** The invert elevation is preferable from survey. However, if the location of this elevation is not accessible, then this information may be calculated from record drawings. The vertical accuracy required for survey is ± 50 mm. Document the source of information, whether it was survey or records. The Consultant may also need to survey and collect more data around a feature to get complete results.

**Question 3:** Are permits required to work on streets?

**Response 3:** Yes. Streets and Services Permit from Halifax Regional Municipality is required for on-street survey work. Should any other permits be required, these are also the responsibility of the Consultant. Halifax Water will be monitoring work locations regularly to ensure compliance to safety is adhered to.

**Question 4:** Could the GIS schema and Geodatabase be provided by Halifax Water as part of the RFP Process?

**Response 4:** No. The schema and Geodatabase will be provided to the successful proponent(s) only.

**Question 5:** Do we assume all missing inverts are to be collected in the field even if provided on as-builts?

**Response 5:** Yes to missing inverts, with the record drawings being used only as a source to check the information found in the field. It is preferred that these inverts are surveyed.

**Question 6:** What if record drawings do not exist for an area?

**Response 6:** Other sources if available will be provided: some GIS, schematic, service cards, etc. A more detailed survey will be needed, pipe locators if necessary. Operations support may be available to assist through contacting the Halifax Water Project Manager.

**Question 7:** In what format will the record drawings be provided? How many will be digital/scanned?

**Response 7:** Any available scanned images will be provided in a TIFF format.

**Question 8:** Do we have a standard list of source codes or a way to manipulate them?

**Response 8:** Source is an attribute for how data was collected (Total Station, GPS, digitized, etc.)
Question 9: Will metadata be provided?
Response 9: Yes for metadata that is available and only to the successful proponent(s).

Question 10: Is a geometric network or 3D model in place or planned for the future?
Response 10: Not currently in place, just connectivity, but yes planned for the future.

Question 11: Are sequential numbers for features being provided?
Response 11: A block of sequential numbers for each water or wastewater feature class requiring a new number will be provided. For certain features such as valves and hydrants, numbers currently exist and will remain the same, so they will be provided and used in the update.

Question 12: Are there issues with paved over manholes or valves?
Response 12: Possibly - Operations staff are most likely aware of these but just flag if any are come across.

Question 13: What about private property or inaccessible areas?
Response 13: Service cards will be provided to assist with the commercial services on building lots.

Question 14: Do we have a lot of ties on service cards?
Response 14: Access will be provided to scans, hard copies, PDF’s, containing attributes based on civic number (Water) or civic ID (Wastewater), ties and a sketch. Not all have complete information.

Question 15: Where GIS data exist is a rebuild expected?
Response 15: No. Leave existing updates but still survey data as verification.

Question 16: What is the protocol if something is found in the field that is currently not showing up in the system?
Response 16: Survey and compile the data and tag any attributes available and we will add into the database independently. There are remarks/comments fields for some features. Capture and discuss with us as needed.

Question 17: Is it necessary to provide a data dictionary to go along with the field collection?
Response 17: No, we are interested in the raw survey file but the SDE database will need to be updated by the Consultant into HW specifications and standards.

Question 18: Will customer information be provided?
Response 18: No, only information up to and including curb stop.

Question 19: Is there any value in photographs? Manholes, structures, etc. (e.g. Photos of manholes facing a Center direction).
Response 19: Only photograph what is important. We do not want a photograph of every manhole for example.

Question 20: Are permits required to work on streets?
Response 20: Yes.

Question 21: Are background checks necessary.
Response 21: Yes, for anyone involved in the project.
Question 22: Do we have Project Management guidelines?
Response 22: Yes. This project will have predefined Project Management processes and templates that the Consultant will be expected to adhere to as they work directly with Halifax Water’s Project Manager. This project will be project managed based on the best practice PMBOK principles.

Question 23: You have identified so many meters of sanitary pipe that need to be located in the field, yet there are many more meters of sanitary pipe that “may” need attribution. Our question is “Would that sanitary pipe connect to the manholes?”
Response 23: Yes.

Question 24: If we need to update an invert because it is inaccurate or missing, could that impact other invert levels along the pipe? (i.e. other inverts may have to be updated as a result of changing values to previous invert levels).
Response 24: Yes.

Question 25: Do we need to check the existing attribute data for every length of pipe or every piece of pipe in the area?
Response 25: We are not asking you to check every attribute. Although as part of doing the update, if that causes you to come upon a few anomalies, then we would like it investigated a little further so you can improve upon it. We are not saying go back and treat it like there is nothing updated and do it all from scratch. We already trust what is done. If our operations or engineering department cannot tell us anything specific about a particular area we don’t expect the Consultant to go back and investigate it for the sake of investigating it.
APPENDIX D


Data will be structured, coded and built to Halifax Water specifications in the areas of feature coding, data model structure, data accuracy and coordinate system. The information and tables in the following sections will indicate Halifax Water requirements in these areas.

Geo-referencing
All data collected through field survey or otherwise compiled from existing records shall be referenced using Nova Scotia Coordinate Survey System (ATS77). The map projection shall be the Nova Scotia Modified Transverse projection and grid system (MTM Zone 5). The horizontal datum for all coordinates shall be ATS77 adjustment. All coordinates and measurements shall be supplied in metric units.

Coordinate Accuracy
Measurement and distances shall be collected to an accuracy of ± 50 mm.
D.2 Features and Tables Required in SDE Database

Collect and Update – Wastewater Feature Classes and Tables

**Network Feature Classes**
- CATCHBASINS
- CHAMBERS
- CONTROL STRUCTURES
- CSO STRUCTURES
- CURB AND CORP STOPS
- DITCHES
- FITTINGS
- HEADWALLS
- HOLDING TANKS
- LATERALS
- MANHOLES
- OUTFALLS
- PIPES
- PUMPS
- PUMPING STATIONS
- STORMWATER MANAGEMENT STRUCTURES
- TREATMENT FACILITIES
- VALVES
- VENT LINES

**Stand-Alone Feature Classes**
- ANODES
- CASINGS
- CATHODIC PROTECTION TEST STATIONS
- CCTV LINES
- DYE TEST START POINTS
- DYE TEST END POINTS
- ENCROACHMENT LICENSES
- FLOOD EVENTS
- FLOW MONITORING ZONES
- FORCE MAIN FLOW METERS
- GRAVITY FLOW METERS
- IDENTIFIED DEFICIENCIES (PIPES AND LATERALS)
- INSULATIONS
- LININGS
- PROPOSED LINES
- PROPOSED POINTS
- RAIN GAUGES
- REGIONS
- SERVICE POINTS
- SEWERSHEDS
SMOKE TEST START POINTS
SMOKE TEST END POINTS
STORMWATER BILLING
STRUCTURES
TRACEWIRES
TRACEWIRE ACCESS POINTS
WET WEATHER OVERFLOW LOCATIONS

Tables
ASSET DRAWING LINK
ASSET ENCROACHMENT LICENSES LINK
ASSET PHOTO LINK
CCTV REPORTS
CONDITION ASSESSMENT
DRAWING INDEX
ENCROACHMENT LICENSES CURRENT TO FORMER LINK
ENCROACHMENT LICENSES TO PARCELS LINK
LATERAL INFORMATION
LEGACY IDENTIFIERS
OVERFLOW EVENT DETAILS
PHOTO INDEX
RENEWALS AND REMOVALS
SERVICE POINTS CROSS CONNECTION
SERVICE POINTS TIE INFORMATION
SERVICE POINTS TO LATERALS LINK
SERVICE POINTS TO PRIVATE SYSTEM LINK
SERVICE POINTS CIVIC LINK
NON-CIVIC SERVICE POINTS PDF SCANS
CIVIC POINTS PDF SCANS
SERVICE POINTS SKETCHES

Collect and Update – Water Feature Classes and Tables
Network Feature Classes
- Fittings
- Hydrants
- Pipes
- Service Lines
- Valves

Stand-Alone Feature Classes
- Annotation Detail
- Annotation General
- Annotation Leader
- Anodes
- Casing
- Cleaning/Lining
- Hydrants All
- Insulation
- Leaks/Breaks
- Master Meters
- Meters
- Meter and Pressure Zones
- Plat Grads
- Proposed Lines
- Proposed Points
- Pumps
- Sampling Stations
- Scada Sensors
- Service Points
- Structure Points
- Structure Polygons
- Survey Points
- Test Stations
- Water Wastewater Accounts
- Masked Pipes

Tables
- Hydrant Maintenance
- Hydrant Pressure
- Leak/Break Maintenance
- Service Civic Link
- Service Maintenance
- Test Station History
- Valve Maintenance
- Operations Service Laterals
- Asset Drawing Link
- Drawing Index
- Hydrant Removals
- Leak/Break Removals
- Pipe Removals
- Service Removals
Valve Removals
APPENDIX E

Feature Code Listing

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APPENDIX F

Process for Obtaining Police Record Check for Contractors and Consultants

1. All contractors, Consultants and their employees working for Halifax Water must obtain a “Police Record Check” (PRC).

2. It is the responsibility of the Halifax Water staff member that engages a contractor or a Consultant to ensure that a PRC is conducted.

3. To obtain a PRC, contractors or Consultants should either:
   a) Book an appointment with or visit their local Police department. Once completed, the results of the PRC should be sent to the address below indicating the organization the individual is currently employed with, the HW Project Manager, and the name of the project that the PRC’s relate to.

      Halifax Water
      Safety & Security Dept.
      450 Cowie Hill Road
      Halifax, NS B3P 2V3

      Or by email: monicastc@halifaxwater.ca

   b) Go online to http://backcheck.net/hrwc/. If this method is chosen, the individual will have to create a personal account with mybackcheck. They have the option of verifying their ID either online by answering a couple of quick questions regarding their credit history or in person at any of the 500 participating Canada Post locations nationwide. Once verified, the Police will complete the PRC. The individual will receive an email indicating the results are in. They will then have to login to their mybackcheck account and choose to “Share” the results with Halifax Regional Water Commission again indicating the organization the individual is currently employed with, the HW Project Manager and the name of the project that the PRC’s relate to.

   For residents of the United States, a FBI record check is acceptable.

4. The Safety & Security Department will notify the Halifax Water staff member who requested the PRC whether the contractor has received clearance.

5. If the Contractor/Consultant requires Card Access to a Halifax Water facility(s) the Project Manager will schedule an appointment with the Human Resources Department to have a Contractor Card created and access granted, based on the contractors/Consultant’s needs.

6. Certain contractors/Consultants, depending on the work or services they are providing, may require a fingerprint-based check. Halifax Water reserves the right to request fingerprints where applicable.

7. All contractors, Consultants and their employees are required to renew their PRC every 3 years.
APPENDIX G

PROFESSIONAL SERVICES AGREEMENT

THIS AGREEMENT made this ____ day of __________, 201__.

BETWEEN:

HALIFAX REGIONAL WATER COMMISSION
(hereinafter called "Halifax Water")

OF THE FIRST PART

AND:

[●]
(hereinafter called the "Consultant")

OF THE SECOND PART

Halifax Water and Consultant agree as follows:

THE SERVICES

1.1 Services
The Consultant will provide Services in connection with the following Project:
[NTD: Short description of the Project to be inserted here, which aligns with description from RFP in question]

1.2 Place of Work
The location of the Project (the "Place of Work") shall be [NTD: insert the address, location or other appropriate description of the place whether the Work is to be performed]

1.3 Consultant's Scope of Services
The Consultant will provide Services for the Project in accordance with Schedule C – Consultant's Scope of Services. Any change to the Services listed in Schedule C – Consultant's Scope of Services will be made in writing signed by both parties identifying the change plus adjustments, if any, to the Consultant's Fees and Reimbursable Expenses and time for completion of the Services.

AGREEMENT AND AMENDMENTS

1.4 Entire Agreement
This Professional Services Agreement embodies the entire agreement between Halifax Water and the Consultant with respect to the Work and the Project, and supersedes all prior agreements between them, whether written or oral, respecting the Services. No other terms, conditions or warranties, whether express or implied, form a part of this Professional Services Agreement.
1.5 **Definitions**
Capitalized words and phrases used herein shall, for all purposes of this Agreement and the Schedules hereto (unless there is something in the subject matter or context inconsistent therewith or unless otherwise defined herein) have the meaning set out in Schedule A to this Agreement.

1.6 **Headings**
Headings, recitals and the provision of a table of contents are inserted for convenience of reference only and shall not affect the construction or interpretation of this Agreement.

1.7 **References**
Unless otherwise expressly stated, reference herein to a Schedule or to an Article, Section, subsection, clause, subclause or other subdivision is a reference to such Schedule to this Agreement or to such Article, Section, subsection, clause, subclause or other subdivision within this Agreement.

1.8 **Parties**
References in this Agreement to the "parties" shall mean the parties to this Agreement and a reference to a "party" shall mean one (1) of the parties to this Agreement.

1.9 **Number and Gender**
Words importing the singular only shall include the plural and vice versa, words importing any gender shall include other genders and words importing persons shall include individuals, partnerships, associations, trusts, unincorporated organizations and corporations and vice versa.

1.10 **Statutes and Regulations**
Any reference in this Agreement to all or any part of any statute, regulation, by-law or other legislative enactment shall, unless otherwise expressly stated, be a reference to that statute, regulation, by-law or legislative enactment or relevant part thereof as amended, substituted, replaced or re-enacted from time to time.

1.11 **Monetary References**
Whenever an amount of money is referred to herein, such amount shall, unless otherwise expressly stated, be deemed to be Canadian dollars.

1.12 **Time**
Time shall be of the essence of this Agreement. If the last day of any period of days set out herein falls on a day which is not a Working Day, such period of days shall be extended to the first Working Day immediately following the last day of such period of days. If anything herein falls to be done or held on a day which is not a Working Day, the same shall be done or held on the next succeeding Working Day.

1.13 **Authority**
Where reference is made to a direction, response, act, decision, determination, consent, waiver, approval, notice, request or other communication of Halifax Water that is
required or that may be done, performed or carried out by Halifax Water pursuant to this Agreement, it may be so done, performed or carried out by the Halifax Water Project Manager or such other Person or Persons as may be authorized by Halifax Water to act in his stead and any such Person or Persons or any other Persons who may be designated from time to time as Halifax Water Project Manager for the purposes of the Project Agreement by notice from Halifax Water to the Consultant in accordance with this Agreement.

1.14 Discretion
Where reference is made to a direction, response, act, decision, determination, consent, waiver, approval, notice, request or other communication of Halifax Water or to matters which must be satisfactory to Halifax Water, then, unless otherwise expressly stated, that matter is to be conducted or carried out at the sole discretion of Halifax Water, subject to Halifax Water's obligation to act in good faith and reasonably.

1.15 Amendments in Writing
No amendment, variation or waiver of the provisions of this Agreement shall be effective unless made in writing and signed by each of the parties hereto, either individually by counterpart or collectively. Any amendment, variation or waiver shall take effect on the date specified in the amendment, variation or waiver or, if not so specified, on the date on which the last party executes and delivers the amendment, variation or waiver.

1.16 Assignment
Neither party may assign this Professional Services Agreement in whole or part without the written consent of the other, which consent will not be unreasonably withheld.

1.17 Severability
If any provision of this Professional Services Agreement is declared by a court of competent jurisdiction to be invalid, illegal, or unenforceable, such provision will be severed from this Professional Services Agreement and the other provisions of this Professional Services Agreement will remain in full force and effect.

1.18 No Waiver
a) Any waiver by any party of all or any part of any provision, or the breach of any provision of this Agreement shall affect only the matter specifically identified in the instrument granting the waiver and shall not extend to any other matter, provision or breach.

b) Any waiver by any party of all or any part of any provision, or the breach of any provision of this Agreement shall extend only to the party to whom such waiver is expressly granted and shall not be construed as a waiver in favour of any other party in respect of such provision or breach and shall not prejudice the rights of any other party from insisting upon performance of such provision.

c) The failure of any party to give notice to the other party, or to take any other steps in exercising any right in respect of the breach or non-fulfilment of any provision of this
Agreement, shall not operate as a release or waiver of that right or as a release of the other party from its obligations and liabilities nor shall any single or partial exercise of any right preclude any other or future exercise of that right or the exercise of any other right, whether in law or in equity or otherwise.

**Article 2**

**PROFESSIONAL SERVICES AGREEMENT DOCUMENTS**

2.1 **Schedules**

The following sections and documents form part of and are incorporated into the Professional Services Agreement and are known, collectively as the "Professional Services Agreement Documents":

(a) **Schedule A – Definitions**;

(b) **Schedule B - General Conditions**;

(c) **Schedule C - Consultant's Scope of Services**;

(d) **Schedule D - Fees and Reimbursable Expenses**; and

(e) **[Schedule E – Consultant's Proposal]**

[NTD: As applicable, append as Schedule E those excerpts or portions of the Consultant's Proposal that Halifax Water wishes to incorporate and have form part of Agreement.]

**Article 3**

**FEES AND REIMBURSABLE EXPENSES**

3.1 **Fees for the Services of the Consultant**

The Fees for the Services of the Consultant are set forth in Schedule D - Fees and Reimbursable Expenses.

3.2 **Reimbursable Expenses**

Reimbursable Expenses are the costs and charges identified in Schedule D – Fees and Reimbursable Expenses that are incurred by the Consultant in performing the Services.

**Article 4**

**PAYMENT**

4.1 **Payment**

Halifax Water will pay to the Consultant the Fees and Reimbursable Expenses set out in this Professional Services Agreement.

4.2 **Monthly Invoices**

a) The Consultant will issue monthly invoices for Fees and Reimbursable Expenses, together with Applicable Taxes, which must detail:
b) the period of the Work applicable to the invoice;

c) a breakdown by task of the personnel involved, hours worked and hourly rates of each person involved;

d) percentage calculation of the Work completed; and

e) expenses, disbursements and applicable taxes, separately itemized, which invoices shall be submitted to:

[●]

Project Manager
Halifax Regional Water Commission
450 Cowie Hill Road
P.O. Box 8388, RPO CSC
Halifax, NS B3K 5M1

4.3 **Invoices in Excess of Fees and Reasonable Expenses**

Invoices for amounts exceeding the Fees and Reasonable Expenses set forth herein shall not be approved or processed unless Halifax Water has provided its consent in writing prior to the Work in relation thereto being undertaken.

4.4 **Maximum Payment**

Unless otherwise agreed in writing, Halifax Water will pay invoices up to a maximum of 90% of the fee quoted for a particular phase or component of the Work with the balance of the fee payable upon completion of the phase or component in question.

4.5 **Disputed Payments**

In the event Halifax Water disputes a portion of the Fees and Reimbursable Expenses invoiced by the Consultant, Halifax Water will pay the uncontested portion within the prescribed time. Disputes regarding Fees and Reimbursable Expenses of the Consultant will be resolved in the manner specified in Part 11 - Dispute Resolution.

4.6 **Timing of Payment**

Halifax Water shall pay an invoice within 30 days of receipt of an invoice which is compliant with the requirements of Sections 5.2 and 5.3 above.

4.7 **Changes in the Work**

(a) Should Halifax Water request a change to the Project or Work which requires the Consultant to provide additional Services beyond those contemplated at the time the Professional Services Agreement is signed, before undertaking such additional Services Halifax Water and the Consultant will agree in writing upon the Consultant's remuneration and time for providing the additional Services. Failing an agreement with Halifax Water, Halifax Water will pay the Consultant for the additional Services at the hourly rates set out in Schedule D – Fees and Reimbursable Expenses and any additional Reimbursable Expense incurred, and grant a reasonable extension of time to the Consultant for the performance of the additional Services.
(b) Should Halifax Water, through no fault of the Consultant, request a change to the Project or Work which renders useless a part of the Services already provided, Halifax Water will pay the Consultant in accordance with this Professional Services Agreement for Services already provided which the change has rendered useless.

(c) Should it prove necessary for the Consultant to rework or revise the plans and specifications forming part of the Services for reasons which the Consultant could not reasonably foresee when the Professional Services Agreement was signed or owing to the default or the insolvency of Halifax Water, or as a result of Halifax Water's suspension of the Services or Work on the Project or because of damage to the Project by fire or some other cause, Halifax Water will pay the Consultant or any reworked or revised plans and specifications at the hourly rates set out in Schedule D – Fees and Reimbursable Expenses.

Article 5
NOTICES

5.1 Delivery
A Notice will be addressed to the recipient at the address set out below. The delivery of a Notice will be by personal delivery or receipted courier delivery. A Notice delivered by one party in accordance with this Professional Services Agreement will be deemed to have been received by the other party on the first Working Day after actual delivery. An address for a party may be changed by Notice to the other party setting out the new address in accordance with this Article.

5.2 No E-mail
Although the parties may use electronic communications, for the purposes of general communication, e-mail will not be used for delivery of a Notice.

5.3 Addresses
The addresses for the parties are as follows:
(a) Halifax Water
Halifax Regional Water Commission
450 Cowie Hill Road
Halifax, NS B3P 2V3
Attention: [●]
(b) Consultant

[●]
[NTD: If it is intended that a specific individual or officer must receive the Notice, indicate that individual's name and/or office].

Article 6
GENERAL

6.1 Language of the Contract
The parties confirm their wish that this Professional Services Agreement as well as any other related documents including future amendments, Notices and correspondence be
drawn in English. Parts of the Professional Services Agreement may be included as available in English or in French or both, according to the language or languages in which they originally were drawn.

6.2 **Enurement**
This Professional Services Agreement will enure to the benefit of and be binding upon the parties, and upon their executors, administrators, successors and permitted assigns.

6.3 **Counterparts**
This Agreement may be executed in any number of counterparts and by different parties in separate counterparts, each of which when so executed shall be deemed to be an original and all of which taken together shall constitute one and the same instrument.

6.4 **Facsimile Signatures**
The parties agree that this Agreement may be transmitted by facsimile and the reproduction of signatures by way of facsimile will be treated as though such reproductions were executed originals and each party undertakes to provide the other with a copy of this Agreement bearing original signatures within a reasonable time after the date of execution.

[Balance of this page intentionally left blank]
IN WITNESS WHEREOF the parties hereto have executed these presents as of the day and year first above written.

SIGNED, SEALED and DELIVERED )
  in the presence of: )  HALIFAX

REGIONAL WATER )  COMMISSION
  )
  )  Per:________________________
  )    ●
  )    [Title]
  )
  )  Per:________________________
  )    ●
  )    [Title]
  )
  )
  )  [NTD: NAME OF CONSULTANT]
  )
  )
  )  Per:________________________
  )    ●
  )    [Title]
  )
  )
  )  Per:________________________
  )    ●
  )    [Title]
SCHEDULE A
DEFINITIONS

1. **Applicable Taxes**

   Applicable Taxes means such sum as levied upon the Fee, Reimbursable Expenses and the Work by a Federal, Provincial or Territorial Government and is computed as a percentage of the same and includes the Goods and Services Tax, the Quebec Sales Tax, the Harmonized Sales Tax, and any similar tax, the payment or collection of which is imposed by legislation.

2. **Advisor or Advisor Of Halifax Water**

   Advisor or Advisor of Halifax Water means a professional engineer, architect, or other specialist duly registered or licensed under the laws of Nova Scotia engaged directly by Halifax Water other than the Consultant or Sub-Consultants of the Consultant.

3. **Coordinate or Coordination**

   Coordinate or Coordination, when referring to the Services of the Consultant, means the management and supervision of communications between the Consultant and a Sub Consultant or an Advisor of Halifax Water.

4. **Consulting Documents**

   Consulting Documents means drawings, plans, model, designs, specifications, reports, photographs, computer software proprietary to the Consultant, surveys, source code, calculations and other data, including computer print outs used in connection with the Project, and which were prepared by or on behalf of the Consultant and are instruments of Service for the execution of Work.

5. **Fees**

   Fees means those fees that are identified in Schedule D - Fees and Reimbursable Expenses and which are payable by Halifax Water to the Consultant.

6. **Hazardous Substances**

   Hazardous Substances means any toxic or hazardous solid, liquid, gaseous, thermal, or electromagnetic irritant or contaminant, and includes, without limitation, pollutants, moulds, and hazardous and special materials and wastes whether or not defined as such in any federal, provincial, territorial or municipal laws, statutes, or regulations.

7. **Notice**

   Notice means a written communication between the parties that is delivered in accordance with the provisions of Article 6 - Notices. Use of the verb "to notify" means to send a Notice in the above manner.

8. **Place of the Work**

   Place of the Work means the designated site or location of the Work identified in this Professional Services Agreement.
9. **Professional Services Agreement or Agreement**

Professional Services Agreement or Agreement means this agreement between Halifax Water and the Consultant, including all of the documents identified in Section 3.1 and any amendments thereto.

10. **Professional Services Agreement Documents**

Professional Services Agreement Documents means the documents listed in Section 3.1 of the Professional Services Agreement.

11. **Project**

Project means the total endeavour contemplated in this Professional Services Agreement of which the Services and the Work may be the whole or a part.

12. **Project Budget**

Project Budget means the estimated cost of the Work, including the Services and other professional services, but excluding expenses relating to site acquisition, promotion and marketing.

13. **Project Manager**

Project Manager means, [●] appointed to manage the Project on behalf of Halifax Water.

14. **Reimbursable Expenses**

Reimbursable Expenses means those expenses that are identified in Schedule D – Fees and Reimbursable Expenses and which are payable by Halifax Water to the Consultant.

15. **Services**

Services mean those services that are identified in Schedule C – Consultant's Scope of Services.

16. **Shop Drawings**

Shop Drawings means drawings, diagrams, illustrations, schedules, performance charts, technical brochures, and other data that are to be provided by the Consultant or by others to illustrate details of a portion of the Work.

17. **Sub-Consultant or Sub-Consultant of the Consultant**

Sub-Consultant or Sub-Consultant of the Consultant means any professional engineer, architect, or other specialist duly registered or licensed under the laws Nova Scotia and engaged by the Consultant to perform a discreet scope of services in connection with the Project but does not include employees of the Consultant or consultants working under a personal services agreement with the Consultant.

18. **Substantial Completion**
Substantial Completion is the date on which Halifax Water confirms in writing that it is satisfied that: (a) the Project has been successfully commissioned, (b) staff have been adequately trained in all matters of operation and maintenance relative to the Project and (c) the Consultant has delivered all required technical documentation, operation and maintenance manuals, or the information required for inclusion therein.

19. **Work**

Work means the total development, deployment, documentation and related Services that are identified in Schedule C – Consultant's Scope of Service.

20. **Working Day**

Working Day means a day other than a Saturday, Sunday, statutory holiday or statutory vacation day that is observed by the construction industry in the Halifax Regional Municipality. Reference to a day, other than a Working Day, indicates a calendar day.
SCHEDULE B
GENERAL CONDITIONS

1.0 Agreement Documents
If there is a conflict within the Professional Services Agreement, the order of priority of Professional Services Agreement Documents, from highest to lowest, will be:

(a) Professional Services Agreement;
(b) Schedule A - Definitions;
(c) Schedule B - General Conditions;
(d) Schedule C - Consultant's Scope of Services;
(e) Schedule D - Fees and Reimbursable Expenses; and
(f) Schedule E – Consultant's Proposal.

The documents which make up the Professional Services Agreement are complementary, and what is required by any one will be as binding as if required by all.

Words and abbreviations with well-known technical or trade meanings are used in the Professional Services Agreement Documents in accordance with such recognized meanings.

References in the Professional Services Agreement Documents to the singular will be considered to include the plural as the context requires.

References in the Professional Services Agreement Documents to regulations and codes are considered to be references to the latest published version as of the signature date of the Professional Services Agreement, unless otherwise indicated.

2.0 Law of the Professional Services Agreement; Acknowledgement
2.1 This Professional Services Agreement shall be construed in accordance with and governed by the laws in effect in the Province of Nova Scotia.

2.2 Halifax Water acknowledges receipt of sufficient information from the Consultant, including information concerning the Fees and Services of the Consultant, so as to allow Halifax Water to assess the nature, extent and cost of the Services of the Consultant and the obligations which Halifax Water assumes under this Professional Services Agreement.

3.0 Rights and Remedies
3.1 Except as expressly provided in the Professional Services Agreement Documents, the duties and obligations imposed by the Professional Services Agreement Documents and the rights and remedies available thereunder will be in addition to and not a limitation of any duties, obligations, rights, and remedies otherwise imposed or available by law.
3.2 No failure or delay by any party in exercising any of its rights or remedies hereunder will operate as a waiver thereof, nor will any single or partial exercise of any such right or remedy preclude any other or further exercise thereof or the exercise of any other right or remedy. Except as otherwise provided herein, the rights and remedies of the parties provided in this Professional Services Agreement are cumulative and not exclusive of any rights or remedies provided under this Professional Services Agreement, by law, in equity, or otherwise.

4.0 Consultant's Obligations

4.1 The Consultant is bound by the legislation governing the Consultant's profession. Nothing in this Professional Services Agreement requires the Consultant to derogate from obligations prescribed by law that are binding upon the Consultant.

4.2 The Consultant represents that it has undertaken all reviews and inquiries that it has considered necessary to fully understand and appreciate the scope of the work involved in providing the Services, that it has the necessary skills, experience, know-how, technology and tools to perform the Services, and that it will provide the Services in a prudent, diligent, and workmanlike manner consistent with the best practices in the industry in which the Consultant operates.

4.3 The Services and Consulting Documents provided under the terms of this Professional Services Agreement shall be free from defects and deficiencies and shall accomplish the purposes intended. The Consultant agrees that it shall at its own expense promptly:

(a) correct any work performed, or omitted to be performed, in supplying the Services by the Consultant or any Sub-Consultant which is not in accordance with this Professional Services Agreement and the Project requirements;

(b) rectify and make good or cause to be rectified and made good all defects or deficiencies in any design, plan or specification for the Project which are detected or discovered, including those in respect of which the Consultant has been provided Notice by Halifax Water within the time period stipulated in such Notice; and

(c) indemnify and save harmless Halifax Water from all costs incurred by or asserted to be owed by Halifax Water in connection with or arising from the Consultant's negligence in the performance of its obligations under this Professional Services Agreement, including but not limited to any costs associated with Project performed by the Consultant or any third party which would not otherwise have been incurred but for the Consultant's negligence and which cannot otherwise be utilized in connection with the Project following the correction of the negligence.

4.4 The Consultant agrees that the obligations set forth in Section 4.3 shall remain in effect for three (3) years from the date of Substantial Completion of the Project. The Consultant shall redesign as is necessary and shall cover any costs or damages incurred by Halifax Water arising out of the Consultant's negligence in the performance of its obligations under this Professional Services Agreement.

4.5 The Consultant will maintain records of Reimbursable Expenses and time records for Services performed for which the Fee is computed on an hourly basis. These records will be maintained by generally accepted accounting methods and made available to Halifax Water for inspection and audit at mutually convenient times during the term of this Professional Services Agreement and for a period not exceeding two (2) years following completion of the Services.
4.6 Halifax Water may demand at any time during the performance of these Professional Services Agreement statutory declarations verifying the payment of Sub-Consultants and any other sums owing by the Consultant in connection with this Agreement.

4.7 The Consultant shall: (a) cooperate with Halifax Water in ensuring that safety precautions and programs appropriate for the Project are implemented and (b) comply in all respects with applicable occupational health and safety legislation and applicable policies of Halifax Water, as they apply to the Consultant, in connection with the Project.

4.8 The Consultant will not be responsible for:

(d) acts or omissions of the Advisor of Halifax Water; and

(e) the advice of any independent expert engaged either by Halifax Water, whether or not recommended by the Consultant.

4.9 The Consultant may engage Sub-Consultants with the prior approval of Halifax Water to enable the Consultant to provide the Services, provided that:

(f) the Consultant shall not thereby be relieved of any of its obligations to Halifax Water as set forth in this Agreement;

(g) all subcontracts shall be in writing;

(h) all subcontracts shall include provisions which confirm that they are assignable to Halifax Water;

(i) all subcontracts shall require Sub-Consultants to participate in any dispute resolution process invoked by the parties to this Professional Services Agreement, if called upon by Halifax Water or the Consultant to do so; and

(j) copies of all subcontracts shall be provided to Halifax Water upon the termination of this Agreement by Halifax Water.

4.10 The Consultant proposes that the following shall be Sub-Consultants during the term of this Agreement (unless they are replaced by qualified persons acceptable to Halifax Water which acceptance shall not be unreasonably withheld):

(k) [●] [NTD: Insert details]

4.11 The Consultant will coordinate the activities of its Sub-Consultants.

4.12 Halifax Water makes no warranty or representation as to the accuracy or completeness of information and data furnished by it, including information and data originating from an Advisor of Halifax Water.

4.13 The Consultant will not accept a commission or other compensation from a manufacturer, supplier or contractor involved in the Project. The Consultant will have no financial interest in materials or equipment specified or recommended by the Consultant as part of the Services. However, ownership of less than one percent (1%) of the securities issued by a company whose
securities are traded on a recognized securities exchange will not be deemed to constitute a financial interest.

5.0 Halifax Water's Obligations

5.1 Halifax Water will promptly fulfill all of Halifax Water's responsibilities so as not to impede the Consultant's orderly performance of the Services.

5.2 Halifax Water, when so notified by the Consultant, will make available to the Consultant all information or data pertinent to the Project which is reasonably required by the Consultant to perform the Services.

5.3 Should Halifax Water not provide the information required by the Consultant to perform the Services as mentioned in Section 5.2, the Consultant may give Notice to Halifax Water requesting correction of the default. If Halifax Water fails to provide the information within 30 days after receipt of such Notice, or in such other time period as may be subsequently agreed in writing by the parties, the Consultant may terminate this Professional Services Agreement upon further Notice to Halifax Water.

5.4 Halifax Water will ensure that Advisors of Halifax Water have adequate professional liability insurance, commensurate with the services they will provide for the Project.

5.5 Should the Consultant be required to act as the agent of Halifax Water in order to perform some of the services, Halifax Water will authorize the Consultant in writing to act as Halifax Water's agent for such purposes as may be necessary. Where the Consultant acts as Halifax Water's agent pursuant to a written authorization, Halifax Water is responsible for the authorized actions of the Consultant as agent of Halifax Water.

5.6 Halifax Water will promptly consider requests by the Consultant for directions or decisions and diligently inform the Consultant of Halifax Water's direction or decision within a reasonable time so as not to delay the Services.

5.7 Halifax Water, at the request of the Consultant, will furnish reasonable evidence to the Consultant that financial arrangements have been made to fulfill Halifax Water's payment obligations under this Professional Services Agreement before signing the Professional Services Agreement.

5.8 Halifax Water will notify the Consultant of any material change in Halifax Water's financial arrangements that affect Halifax Water's ability to fulfill Halifax Water's payment obligations under this Professional Services Agreement.

5.9 Halifax Water is responsible for obtaining legal advice regarding tenders, requests for a proposal or information, bids, contract awards and the like, regarding the Project. Halifax Water is responsible for decisions relating to the issuance, validity or award of tenders, proposals or bids and for the resulting consequences, even where the Services require the Consultant to review or assist in the preparation of tenders, proposals for bids and the like or to make recommendations regarding them or regarding the qualification or selection of bidders.

5.10 Halifax Water will arrange where necessary for the Consultant's access to required locations to enable the Consultant to perform the Services.

5.11 Halifax Water will designate in writing an individual to act as Halifax Water's representative who will have authority to transmit instructions to and receive information from the Consultant.
5.12 Halifax Water will notify the Consultant as soon as practicable after Halifax Water or Halifax Water's representative becomes aware of any defects or deficiencies in the Services, or the Consulting Documents, and the Consultant shall promptly rectify at its own expense any such defect or deficiency within the time period stipulated by Halifax Water.

5.13 Halifax Water will obtain required approvals, licences and permits from municipal, governmental or other authorities having jurisdiction over the Project so as not to delay the Consultant in the performance of the Services.

5.14 Halifax Water will not enter into contracts with Advisors of Halifax Water or others that are incompatible or inconsistent with the Services to be provided under this Professional Services Agreement.

6.0 Certifications by the Consultant

6.1 This Part 6 Certifications by the Consultant applies only when and to the extent that the Consultant is required to issue certifications under Schedule C - Consultant's Scope of Services.

6.2 The Consultant will issue those certifications which the Consultant is required to give as part of the Services with the degree of care, skill, and diligence normally provided by Consultants issuing comparable certifications in respect of projects of a similar nature to that contemplated by this Professional Services Agreement, based upon data reasonably available to the Consultant.

7.0 Termination and Suspension

7.1 This Professional Services Agreement is terminated on the earliest of:

(i) the date when the Consultant has performed all of the Services; or

(m) the date of termination if termination occurs in accordance with this Part 7 Termination and Suspension.

7.2 If the Consultant is a natural person practising alone (and not part of a company or a partnership) and should the Consultant die or become seriously incapacitated before having supplied all of the Services, either Halifax Water or the estate or legal representative of the Consultant may terminate this Professional Services Agreement upon Notice to the other, with effect from the date of decease or, in the case of serious incapacity, from the date of the Notice of termination.

7.3 If the Consultant is in material default in the performance of any of the Consultant's obligations under this Professional Services Agreement, Halifax Water will notify the Consultant that the default must be corrected. If the Consultant does not correct the default within 30 days after receipt of such Notice or if the Consultant does not take reasonable steps to correct the default if the default is not susceptible of immediate correction, Halifax Water may terminate this Professional Services Agreement upon further Notice to the Consultant, without prejudice to any other rights or recourses of Halifax Water.

7.4 If Halifax Water is in material default in the performance of any of Halifax Water's obligations set forth in this Professional Services Agreement, including but not limited to the non-payment of Fees and Reimbursable Expenses of the Consultant in the manner specified in this Professional Services Agreement, the Consultant will notify Halifax Water that the default must be corrected. If Halifax Water does not correct the default within thirty (30) days after receipt of such Notice, the Consultant may terminate this Professional Services Agreement upon further Notice to Halifax Water.
7.5 If Halifax Water is unwilling or unable to proceed with the Project, Halifax Water may suspend or terminate this Professional Services Agreement by Notice of thirty (30) days to the Consultant. Upon receipt of such Notice, the Consultant will perform no further Services other than those reasonably necessary to suspend or terminate that portion of the Project for which the Consultant is responsible. In such event, Halifax Water will pay the Fees and Reimbursable Expenses incurred by the Consultant up to the date of suspension or termination.

7.6 If Halifax Water suspends performance of the Services at any time for more than thirty (30) consecutive or non-consecutive days through no fault of the Consultant, then the Consultant may choose to terminate this Professional Services Agreement upon Notice to Halifax Water. In this event, Halifax Water will pay the Fees and Reimbursable Expenses of the Consultant that are incurred and unpaid as of the date of such termination.

8.0 Ownership and Use of Documents and Intellectual Property by Halifax Water

8.1 Halifax Water shall retain all right, title and interest in the Consulting Documents and any and all other products or documents generated by the Consultant in connection with the Services, whether the Services are executed/deployed or not and whether or not the Project is completed.

8.2 The Halifax Water will be the owner of the intellectual property rights, including patent, copyright, trademark, industrial design, and trade secrets in any product developed through this Agreement. Licensing and marketing rights to the developed product will not be granted in this Agreement.

8.3 Without limiting the generality of Sections 8.1 and 8.2, Halifax Water shall own all copies, including reproducible or electronic copies, of the Consulting Documents and all other documents generated by the Consultant in connection with the Services and shall have unrestricted right to use the Consulting Documents and all other documents generated by the Consultant for any purpose it deems necessary whether in connection with the Project or otherwise.

[NTD: If the Consultant is to be responsible for the design in future uses or applications, this responsibility will have to be included in the Scope of Services for which Halifax Water has contract; otherwise future uses are at Halifax Water's risk]

9.0 Project Ownership, Identification and Confidentiality

9.1 Halifax Water represents to the Consultant that Halifax Water is the owner of the Place of the Work. If Halifax Water is not the owner, Halifax Water will notify the Consultant of the identity of the owner before signature of this Professional Services Agreement.

9.2 The Consultant will be identified on Project signage and promotional material whenever other Project design professionals are mentioned. The Consultant may refer to the Project in the Consultant's promotional material.

9.3 Information regarding the design, functionality, equipment, management, costs, or progress of the Project is confidential where one party has notified the other party of the confidential or proprietary nature of such information and where such information is not public knowledge. The parties agree not to disclose confidential information to third parties,
except to the extent required for performance of the Services or where required by law or by mutual consent of the parties.

10.0 Insurance and Liability

10.1 Unless otherwise agreed in writing, the Consultant will carry professional liability insurance covering the services described in the agreement and the insurance policy is to provide coverage for an amount not less than $2,000,000. Coverage will be maintained continuously from the commencement of the Services until completion or termination of the Services and, subject to availability at reasonable cost, for two (2) years after the later of: (a) termination of the Services or (b) Substantial Completion.

10.2 Halifax Water may choose to increase the amount of the coverage of the Consultant's professional liability insurance above that provided in Section 10.1 so as to obtain additional insurance that is specific to the Project. The Consultant will cooperate with Halifax Water to obtain such additional insurance, at Halifax Water's expense.

10.3 The Consultant, by way of written contract, shall require each of its Sub-Consultants to provide, maintain, and pay for the insurances equivalent in scope and terms to those required of the Consultant.

10.4 The Consultant shall provide Halifax Water with certificates of insurance to be provided by the Consultant or Sub-Consultants forthwith upon execution of this Professional Services Agreement or the subcontract, as the case may be.

10.5 If the Consultant fails to provide, maintain or pay for insurances as required by this Part, Halifax Water shall have the right, but not the obligation, to provide, maintain and pay for such insurances and give evidence thereof to the Consultant, in which case the cost thereof shall, at the option of Halifax Water, be payable by the Consultant to Halifax Water on demand or Halifax Water may deduct such costs from monies which are then or thereafter become due and payable to the Consultant under this Agreement.

10.6 The Consultant shall indemnify and hold Halifax Water completely harmless against all liability and expenses including solicitors' fees incurred by Halifax Water arising from the Consultant's negligence in the performance of its obligations under this Professional Services Agreement to the Consultant's performance or non-performance of the Services. This indemnity shall survive the expiration or earlier termination of this Agreement.

11.0 Dispute Resolution

11.1 The parties will make reasonable efforts to resolve disputes arising under this Professional Services Agreement by amicable negotiations and agree to provide, on a without prejudice basis, frank, candid and timely disclosure of relevant facts, information and documents to facilitate these negotiations.

11.2 If the parties have been unable to resolve a dispute by negotiation, either party may notify the other party that it wishes the dispute to be resolved by mediation. If the parties are unable to agree upon the choice of mediator, either party may apply to the Supreme Court of Nova Scotia to appoint a mediator.

11.3 Should mediation not resolve a dispute, a party may refer the unresolved dispute to binding arbitration, to be conducted in Halifax, Nova Scotia.
11.4 Unless the parties otherwise agree, any mediation or arbitration under this Professional Services Agreement will be conducted in accordance with the latest edition of CCDC 40 - *Rules for Mediation and Arbitration of Construction Disputes*, as applied to and compatible with this Professional Services Agreement, save that arbitration will be limited to a single arbitrator.

11.5 Any endeavour to resolve disputes arising out of this Professional Services Agreement by negotiation, mediation or other means of dispute resolution, including arbitration, will be conducted on a confidential basis.
SCHEDULE C
CONSULTANT'S SCOPE OF SERVICES

[NTD: To align with RFP – Insert text from RFP here]
Appendix 1 to Schedule C
Consultant’s Documentation Requirements

[NTD: To align with RFP – Insert text from RFP here]
Appendix 2 to Schedule C
Technical Documentation Manual Requirements

[NTD: To align with RFP – Insert text from RFP here]
SCHEDULE D
FEES AND REIMBURSABLE EXPENSES
[NTD: To align with RFP – Insert table from RFP Section 6.1.2.1 here]
SCHEDULE E
CONSULTANT'S PROPOSAL
[NTD: If applicable, append as Schedule E those excerpts or portions of the Consultant's Proposal that Halifax Water wishes to incorporate and have form part of Agreement.]