FORM A: PROPOSAL
(See B9)

1. **Contract Title**   **REQUEST FOR PROPOSAL FOR A CITY OF WINNIPEG - WATER & WASTE DEPARTMENT OPERATIONAL MANAGEMENT SYSTEM**

2. **Proponent**

_____
Name of Proponent

_____
Usual Business Name of Proponent as it appears on Invoice (if different from above)

_____
Street

_____
City   Province   Postal Code

_____
Email Address of Proponent

_____
Facsimile Number

(Mailing address if different)   _____
Street or P.O. Box

_____
City   Province   Postal Code

_____
GST Registration Number (if applicable)
                              Province   Postal Code

The Proponent is:

(Choose one)   ☐ a sole proprietor

☐ a partnership

☐ a corporation

carrying on business under the above name.

3. **Contact Person**   The Proponent hereby authorizes the following contact person to represent the Proponent for purposes of the Proposal.

_____
Contact Person   Title

_____
Telephone Number   Facsimile Number

4. **Definitions**   All capitalized terms used in the Contract shall have the meanings ascribed to them in the General Conditions and D3.

5.   Offer   The Proponent hereby offers to perform the Work in accordance with the Contract for the Price(s), in Canadian funds, set out on Form B: Prices, appended hereto.

6.   Execution of Contract   The Proponent agrees to execute and return the Contract no later than seven (7) Calendar Days after receipt of the Contract, in the manner specified in C4.1.

7.   Commencement of the Work   The Proponent agrees that no Work shall commence until he/she is in receipt of a notice of award from the Award Authority authorizing the commencement of the Work.

8.   Contract   The Proponent agrees that the Request for Proposal in its entirety shall be deemed to be incorporated in and to form a part of this offer notwithstanding that not all parts thereof are necessarily attached to or accompany this Proposal.

9.   Addenda   The Proponent certifies that the following addenda have been received and agrees that they shall be deemed to form a part of the Contract:

No. _____   Dated _____

      _____   _____

      _____   _____

10.   Time   This offer shall be open for acceptance, binding and irrevocable for a period of one hundred and eighty (180) Calendar Days following the Submission Deadline.

Template Version: Sr120150806 - S RFP

11. Signatures   The Proponent or the Proponent's authorized official or officials have signed this

_____ day of _____ , 20_____ .

Signature of Proponent or
Proponent's Authorized Official or Officials

_____

_____
(Print here name and official capacity of individual whose signature appears above)

_____

_____
(Print here name and official capacity of individual whose signature appears above)

FORM B: PRICES
(See B10)

Request For Proposal For A City of Winnipeg - Water & Waste Department Operational Management System

UNIT PRICES

ITEM NO.	DESCRIPTION	SPEC. REF.	UNIT	APPROX. QUANTITY	UNIT PRICE	AMOUNT
1.	Concurrent User Licenses (Core OMS)	E4, E5, E6	Per License	55		
2.	Concurrent User Licenses (Reporting Access)	E5.6	Per License	20		
3.	Concurrent User Licenses (Mobile Access)	E5.4	Per License	25		
4.	Incident Map View Licensing (55 concurrent users, 100 desktops)	E3.6(a)	Lump Sum	1		
5.	Server Licenses (Development)	E6	Lump Sum	1		
6.	Server Licenses (Production)	E6	Lump Sum	1		
7.	Third Party Software Licenses – Including ALL components specified in the solution (Development)	E6	Proponent to provide listing of 3rd party components	Proponent to Specify Qty		
8.	Third Party Software Licenses – Including ALL components specified in the solution (Production)	E6	Proponent to provide listing of 3rd party components	Proponent to Specify Qty		
9.	OMS Administrator Training	B13	Per Seat	5		
10.	OMS End User Training	B13	Per Seat	70		
11.	OMS IST (Technical) Training	B13	Per Seat	5		
12.	OMS Reporting (Reporting Access) Training	B13	Per Seat	20		
13.	Annual Support Fee & Maintenance – 5 years, post year 1 (Year 2 to Year 6 inclusive)	E4, E5, E6	Lump Sum	1		
14.	Professional Services - Initiation/Planning	B12	Per Hour	Proponent to Specify Qty		
15.	Professional Services – Stage 1, including analysis, design, configuration, implementation, testing, and go-live	E4, E5, E6	Per Hour	Proponent to Specify Qty		

FORM B: PRICES
(See B10)

Request For Proposal For A City of Winnipeg - Water & Waste Department Operational Management System

UNIT PRICES

ITEM NO.	DESCRIPTION	SPEC. REF.	UNIT	APPROX. QUANTITY	UNIT PRICE	AMOUNT
16.	Professional Services – Stage 2, including analysis, design, configuration, implementation, testing, and go-live. NB $0 if stage not required, per proponent approach	E4, E5, E6	Per Hour	Proponent to Specify Qty		
17.	Professional Services – Stage 3, including analysis, design, configuration, implementation, testing, and go-live. NB $0 if stage not required, per proponent approach	E4, E5, E6	Per Hour	Proponent to Specify Qty		
18.	Professional Services – Any Additional Stages (post Stage 3), including analysis, design, configuration, implementation, testing, and go-live	E4, E5, E6	Per Hour	Proponent to Specify Qty		
19.	Professional Services – Training if not included in line items above. Assume on-site training	B13	Per Day	Proponent to Specify Qty		
20.	Travel Costs & Living Expenses (that have not been included in the above pricing)	B12	Lump Sum	1		

TOTAL BID PRICE (GST and MRST extra) (in figures)$ _____

_____

_____

_____

Name of Proponent

FORM N: PROPONENT PROPOSAL
(See B16)

Request For Proposal For A City of Winnipeg - Water & Waste Department Operational Management System

OPERATIONAL MANAGEMENT SYSTEM

Instructions for filling out Form N: Proponent Proposal

1. **Complete Form N: Proponent Proposal**
2. **Ensure that you indicate which alternative is being proposed in the Proposal Type section below**
3. **Follow the proposal instructions in the Proposal Instructions section below**

PROPOSAL INSTRUCTIONS

1. **For each mandatory requirement, provide a Y (Yes) or N (No), indicating whether your solution can meet the requirement. Y indicates that the solution you are proposing will meet the requirements listed in the requirement statement. N indicates that the solution you are proposing will not meet the requirements.**

2. For each high level rated requirement, provide a response in the section below the requirement section where the bidder response is indicated with <>. **Be specific, detailed, and include images, diagrams, links, etc. where appropriate to support the response. The response should address all granular requirements (if any) listed below the high level requirement.**

3. For each granular rated requirement (except where indicated N/A via grey shading), indicate which bidder response code best describes your solution:

    Y – Available Out of the Box: **Solution for the requirement is currently available in the existing product "out of the box". Configuration may be required to enable the feature (requirement will be met through changes to settings of tables, switches, and rules without modification to the source code). Requirement is installed and operational at other sites and can be demonstrated to the City of Winnipeg.**

    C – Available via Customization: **Solution for the requirement is not currently available in the existing product "out of the box", but may be incorporated via customization of the solution components. Requirement will be met through changes to the source code which would require analysis and re-application during updates, upgrades, or when applying software patches.**

    F – Future Availability: **Solution for the requirement is not currently available, but will be available in an upcoming product release. If this option is indicated, include the date/timeframe when the requirement will be available for implementation.**

    3 – Third Party Supplied: **Solution for the requirement is expected to be met by using a third party vendor's existing product, either integrated or non-integrated.**

    N – Not Possible: **Solution for the requirement will not be provided by the Proponent.**

Notes:

1. **An omitted response will be assumed to be the same as a response code of "N".**
2. **Any deviation from the response code will be re-coded at the discretion of the City of Winnipeg.**

FORM N: PROPONENT PROPOSAL (See B16) Request For Proposal For A City of Winnipeg - Water & Waste Department Operational Management System	
PROPOSAL TYPE **Indicate the Alternative that this response applies to (check one only)**	Check One
Alternative 1 – City of Winnipeg Solution Hosting A commercial off-the-shelf software package implementation where the City of Winnipeg will host the application and any required components on our infrastructure and will take full or partial responsibility for maintenance of the application, working closely with the Proponent.	
Alternative 2 – Proponent Solution Hosting (E7) A commercial off-the-shelf software package implementation where the Proponent will host all aspects of the solution, including all server-based hardware, software, and databases (structured and non-structured data). The Proponent will take full responsibility for maintenance and upgrading activities related to the application and related components, with oversight provided by the City of Winnipeg.	

FORM N: PROPONENT PROPOSAL		
(See B16)		
Request For Proposal For A City of Winnipeg - Water & Waste Department Operational Management System		
Rated Requirement Section and Topic(s)	**RFP Reference #**	**Bidder Response (Y, C, F, 3, N)**
B11 Experience of Proponent		
B11.1 The Proponent should submit information in sufficient detail for the City to evaluate the qualifications of the Proponent by providing the items listed below. *Include any additional information regarding the experience of the Proponent that may be of interest to the City of Winnipeg.*	B11.1	
(a) Brief overview of your organization, company history, professional services offered, markets serviced and customer base;	B11.1(a)	
(b) Their organization and management structure;	B11.1(b)	
(c) The number of government contracts similar in size and scope;	B11.1(c)	
(d) The details of the scope and value of each contract;	B11.1(d)	
(e) Three (3) references for recent projects similar in size and scope, preferably for municipal government clients. Each reference should consist of a company name, contact name, email address, phone number and a brief description of the project.	B11.1(e)	
<Experience of Proponent Response>		
B12 Implementation		
B12.1 Describe your understanding of the Project as defined in Appendix B and the scope of services required. The Proponent should submit information in sufficient detail for the City to evaluate the qualifications of the implementation team by providing the items listed below. *Include any additional information regarding implementation that may be of interest to the City of Winnipeg.*	B12.1	

FORM N: PROPONENT PROPOSAL (See B16) **Request For Proposal For A City of Winnipeg - Water & Waste Department Operational Management System**		
(a) A description of your approach/methodology for performing implementations through all stages of the project; including Project Management, Requirements Analysis & Design, Configuration Design/Specifications, Configuration of Core/Static data, Configuration of Reports, Quality Assurance, Training, and a timeline/schedule covering all stages of the project which includes major tasks, durations and resource efforts, identifying key milestones throughout the overall implementation. Include initial assumptions, constraints and a description of risk management procedures and approach, a description of issue management procedures and approach, and a description of change management procedures and approach. This may be different than the high-level draft implementation stages defined in Appendix B and should that be the case, please describe any specific advantages of the proposed alternate approach to WWD. For clarity, please note that City of Winnipeg will undertake responsibility for the formal Organizational Change Management work for the duration of the project, but will expect the successful proponent to support WWD's change management activities as may be required;	B12.1(a)	
(b) A description of your approach to overall team formation and coordination of team members including anticipated resources from the Proponent and City of Winnipeg including roles and responsibilities and anticipated efforts by resource. Include a breakdown that clearly identifies the amount of time and type of staff resources that the City of Winnipeg will need to provide for each of the project stages;	B12.1(b)	
(c) Profiles outlining experience and qualifications of the Key Personnel that are typically assigned to projects of this nature in the Canadian market. Include details of projects of comparable size and complexity that each resource has worked on. Roles of each of the Key Personnel in the project should be identified in the organization chart referred to in B11.1(b);	B12.1(c)	
(d) Explain how the team will accomplish all required tasks and provide quality deliverables within the described timelines.	B12.1(d)	
<Implementation Proponent Response>		

FORM N: PROPONENT PROPOSAL		
(See B16)		
Request For Proposal For A City of Winnipeg - Water & Waste Department Operational Management System		
B13 Training		
B13.1 The Proponent should describe their training methodology and approach, including all relevant information regarding knowledge transfer to City of Winnipeg staff. *Include any additional information regarding training that may be of interest to the City of Winnipeg.*	B13.1	
(a) Methodology: Describe the proposed schedule, participants, and curriculum and include any prerequisite knowledge required of each of the user types: Administrator, End User (various roles), Technical, Report Users (read-only access to reporting features, not the core application). Specify whether on-site or off-site and include any logistical requirements e.g. classroom, white board, internet access, etc.;	B13.1(a)	
(b) System Manuals: Provide a listing of all user, administrator, and installation/IT manuals, along with any other associated instructional reference materials that will be made available to the City once the Contract is awarded;	B13.1(b)	
<Training Proponent Response>		

FORM N: PROPONENT PROPOSAL (See B16) Request For Proposal For A City of Winnipeg - Water & Waste Department Operational Management System		
Mandatory Requirement		**Bidder Response (Y, N)**
E4 Mandatory Requirements		
The system shall provide features to support work order and asset management of linear based underground assets for the water and wastewater industry.	E4.1	
The system shall provide the ability to associate activity (incidents, work orders, service requests, inspections, etc.) to Assets.	E4.2	
The system shall provide a map-based user interface within the core solution that integrates directly with Work Order and Asset Management functions.	E4.3	
The system shall provide the ability to access and update Asset Information within the City's Corporate Geographical Information System (GIS).	E4.4	
The system shall be designed to implement business rules and workflows through administrative configuration tools.	E4.5	
The system shall provide the ability to automatically generate work orders based on predefined schedules or business rules.	E4.6	
The system shall provide the ability to operate the software from mobile computing platforms.	E4.7	
The system shall be designed with Application Programming Interfaces (APIs) to facilitate integration with external systems.	E4.8	
The system shall provide a robust inventory management function that includes the ability to store inventory items, manage inventory, and decrement inventory based on work.	E4.9	

FORM N: PROPONENT PROPOSAL		
(See B16)		
Request For Proposal For A City of Winnipeg - Water & Waste Department Operational Management System		
Rated Requirement Section and Topic(s)	**RFP Reference #**	**Bidder Response (Y, C, F, 3, N)**
E5 Business Requirements		
E5.1 Asset Management		
(a) **Manage Asset Information:** Explain how your system provides the ability to add, update and manage asset information stored within the Operational Management System (OMS) and/or integrated to the OMS from a geospatial database. *Include any additional information regarding asset information management that may be of interest to the City of Winnipeg.*	E5.1(a)	
(i) Asset Feature Classes; The system should have the ability to manage asset types commonly found in use within Canadian water distribution and wastewater collection networks and potentially other feature classes pertinent to water and wastewater industry operations.	E5.1(a)(i)	
(ii) Asset Location Data; The system should have the ability to locate and work with assets using variety of location-based reference points, including but not limited to street address, Global Positioning System (GPS) coordinates, location description, intersection, etc.	E5.1(a)(ii)	
(iii) Overall Condition Indicator; The system should have the ability to configure an Overall Condition Index (OCI) calculation for all assets of any feature class in the system, including user defined user classes.	E5.1(a)(iii)	
(iv) Asset History; The system should have the ability to track all events and activities related to an asset. Users should be able to easily view the history of an asset based on date, type of event / activity and location.	E5.1(a)(iv)	
<Manage Asset Information Proponent Response>		
(b) **View Asset Information:** The city's Corporate GIS spatial database represents the "source of record" for all asset attribute information (size, make, model, etc.) of water and wastewater underground, linear-based assets. Explain how your system will retrieve and view asset attribute information for use in the OMS. *Include any additional information regarding asset information viewing that may be of interest to the City of Winnipeg.*	E5.1(b)	
(i) Spatial; The system should have the ability to display asset locations on a map-based and tabular views and allow users to access associated attribute information.	E5.1(b)(i)	
(ii) Extended Asset Attributes; The system should have the ability to store additional information about an asset, which is not stored within the source of record.	E5.1(b)(ii)	

FORM N: PROPONENT PROPOSAL (See B16) Request For Proposal For A City of Winnipeg - Water & Waste Department Operational Management System		
(iii) Temporal; The system should have the ability to retrieve asset information for a specified point in time or range of time in the asset lifecycle.	E5.1(b)(iii)	
(iv) Asset Data Visualization; The system should have the ability to visually differentiate assets based on type, condition, operational status, and other data elements using icons, colors, etc.	E5.1(b)(iv)	
(v) Asset Search; The system should have the ability to find / locate assets using a variety of methods including attribute search criteria, spatial query, location proximity and connectivity to related asset(s).	E5.1(b)(v)	
(vi) Asset Activity; The system should have the ability to display service requests, work orders, and incidents related to an asset when viewing the asset.	E5.1(b)(vi)	
(vii) Historical Asset Activity; The system should provide the ability to display asset maintenance transactions for a specified point in time or for a range of time when viewing the asset.	E5.1(b)(vii)	
<View Asset Information Proponent Response>		
(c) **Non-Fixed Assets:** A potential future use of the OMS is to track deployment and maintenance activities associated with so-called Non-Fixed Assets. One such application of this feature would be used for the tracking of various bins, carts and containers used by Solid Waste Division for refuse and recycling collection. Explain how your system provides for such assets and supports tracking information and location including GPS location and address, inventory management, and location changes. *Include any additional information regarding non-fixed assets that may be of interest to the City of Winnipeg.*	E5.1(c)	
(i) Identification; The system should have the ability to identify and track non-fixed assets using various technologies such as Bar Codes and Radio Frequency Identification (RFID) tags .	E5.1(c)(i)	
(ii) Non-Fixed Asset Inventory; The system should have the ability to define non-fixed asset types with pertinent attribute information and manage instances within the system.	E5.1(c)(ii)	
(iii) Asset Location Changes; The system should have the ability to update the location of non-fixed assets, including returning the asset to inventory or updating the physical deployed location of the asset.	E5.1(c)(iii)	
<Non-Fixed Assets Proponent Response>		

FORM N: PROPONENT PROPOSAL (See B16) **Request For Proposal For A City of Winnipeg - Water & Waste Department Operational Management System**		
E5.2 Preventative Maintenance		
(a) Program Management: Explain how your system supports the setup, execution and management of regularly scheduled maintenance programs for assets managed within the OMS. *Include any additional information regarding program management that may be of interest to the City of Winnipeg.*	E5.2(a)	
(i) Applicable Assets; The system should have the ability to create preventative maintenance programs for any type of asset, including but not limited to linear assets, composite assets, non-fixed assets, etc.	E5.2(a)(i)	
(ii) Program Maintenance; The system should have the ability to capture and store program information, including but not limited to name, description, purpose, etc. The ability to associate programs to other programs must be available. A program must be modifiable once created.	E5.2(a)(ii)	
(iii) Program Notes; The system should allow for entry of notes for the program and/or assets related to the program and make the notes available for the next preventative maintenance cycle.	E5.2(a)(iii)	
<Program Management Proponent Response>		
(b) Schedule Management: Explain how your system provides a robust scheduling solution for preventative maintenance program that supports the ability to schedule preventative maintenance based on a number of criteria. *Include any additional information regarding schedule management that may be of interest to the City of Winnipeg.*	E5.2(b)	
(i) Schedule Frequency; The system should have the ability to create preventative maintenance programs based but not limited to time (days, months, quarters, years); season (pre-definable); and meters (odometer, hours), etc.	E5.2(b)(i)	
(ii) Schedule Cycles; The system should provide the ability to create overlapping and concurrent cycles for the same preventative maintenance program.	E5.2(b)(ii)	
(iii) Incomplete Work; The system should have the ability to indicate when preventative maintenance work is not completed by the assigned date.	E5.2(b)(iii)	
(iv) Calendar View; The system should provide a calendar view of preventative maintenance scheduled activities.	E5.2(b)(iv)	
<Schedule Management Proponent Response>		

FORM N: PROPONENT PROPOSAL (See B16) Request For Proposal For A City of Winnipeg - Water & Waste Department Operational Management System		
(c) Automated Work Order Generation: Describe the system's ability to support the automated generation of work orders/tasks, including the ability to generate work orders based on schedule or other criteria. *Include any additional information regarding automated work order generation that may be of interest to the City of Winnipeg.*	E5.2(c)	
(i) Scheduled Work Orders; The system should have options to enable work order generation based on preventative maintenance cycles i.e. work orders are generated at the start of a scheduled time or after the previous preventative maintenance cycle is completed.	E5.2(c)(i)	
(ii) Work Order Generation; The system should be able to generate advance scheduling of preventative maintenance work orders based on unique criteria.	E5.2(c)(ii)	
<Automated Work Order Generation Proponent Response>		
(d) Maintenance Route Management: Explain how your system supports route-based activity management for optimizing work execution pertaining to preventative maintenance programs, daily work activities and routine inspections. *Include any additional information regarding maintenance route management that may be of interest to the City of Winnipeg.*	E5.2(d)	
(i) Route Display; The system should provide the ability to display the specific sequencing of work locations (route) for a set of work activities on a map.	E5.2(d)(i)	
(ii) Route Creation; The system should suggest "optimal" routes for a set of selected activities, locations, etc. in order to minimize driving time and/or distance travelled. The system should support the importing of static routes associated with specific activities and/or assets. The OMS should be capable of incorporating, interpreting and displaying route information created in route planning systems outside of the OMS.	E5.2(d)(ii)	
(iii) Route Management; The system should provide the ability to alter the sequencing of add, remove, and change route points, and re-optimize routes inclusive of any changes.	E5.2(d)(iii)	
<Maintenance Route Management Proponent Response>		

FORM N: PROPONENT PROPOSAL
(See B16)
Request For Proposal For A City of Winnipeg - Water & Waste Department Operational Management System

E5.3 Work Management

(a) Service Requests and Work Orders/Tasks: Explain how your system provides robust and flexible incident, service request and work order management practices. This should include features to manage the intake of service requests, allocation of work to crews (priority, type, location, etc.), plan daily routing of work, monitoring of in-progress activities, organization of up-coming work, and reporting of service response times and other performance indicators. *Include any additional information regarding service requests and work orders that may be of interest to the City of Winnipeg.*	E5.3(a)	
(i) Work Order Creation; The system should provide the ability to create work orders and associate them to corresponding assets and/or locations. Work orders must be modifiable to allow additional information and/or associations to be recorded against the work order, until it is closed.	E5.3(a)(i)	
(ii) Service Request Creation; The system should provide the ability to create and associate service requests to work groups, assets, locations, etc. Service Requests must be modifiable to allow additional information and/or associations to be recorded against the work order, until it is closed.	E5.3(a)(ii)	
(iii) Service Request Grouping; The system should provide the ability to identify redundant service requests (incidents) from customers and associate together to manage as a single unit of work.	E5.3(a)(iii)	
(iv) Work Dispatching; The system should support the notification of work assignments to crews working in the field via SMS and email-based messages. Messages including work assignments should include context-sensitive links allow crews to easily recall work assignments in the OMS.	E5.3(a)(iv)	
<Work Order Management Proponent Response>		
(b) Workflow Management: Explain how your system provides workflow management and monitoring capabilities to execute and govern standard methods, procedures and sequencing of activities within the context of corrective maintenance and preventative maintenance activities. *Include any additional information regarding workflow management that may be of interest to the City of Winnipeg.*	E5.3(b)	
(i) Workflow Configuration; The system should provide the ability to create, modify, and deploy workflows for handling service requests, work orders, tasks, reporting, etc.	E5.3(b)(i)	

FORM N: PROPONENT PROPOSAL (See B16) **Request For Proposal For A City of Winnipeg - Water & Waste Department Operational Management System**		
(ii) Workflow Events; The system should have the ability to automate notifications and task generation based on a work order status change or other events related to a work order.	E5.3(b)(ii)	
(iii) Work Order Definition; The system should have the ability to define common work types, decomposed into one or more activities / tasks with corresponding workflows to govern tracking.	E5.3(b)(iii)	
(iv) Valve Card Workflow; Explain how your system can be leveraged to replace the existing paper-based Valve Card system and processes, as described in Appendix I Water Services Future State Programs, sections 1 and 3.	E5.3(b)(iv)	
(v) Valve Exercise Program; Explain how your system can be leveraged to implement a new Valve Exercise program, as described in Appendix I Water Services Future State Programs, section 2.	E5.3(b)(v)	
<Workflow Management Proponent Response>		
(c) Inventory Management; Explain how your system provides the ability to manage the WWD stores inventory of parts and supplies. The system should provide features commonly found in inventory management systems such as monitoring and replenishing stock levels, tracking stock locations on shelves and support for various product barcodes. *Include any additional information regarding inventory tracking that may be of interest to the City of Winnipeg.*	E5.3(c)	
(i) Tracking; The system should track inventory based on usage, location, status, re-order point quantities, expiration dates, suppliers, etc. Supplies may be returned to inventory if pulled but not used for a job.	E5.3(c)(i)	
(ii) Cycle Counts; The system should support robust and flexible parameterized cycle counts.	E5.3(c)(ii)	
(iii) Transfers; The system should provide the ability to transfer inventory from one location to another and update related records for each inventory location.	E5.3(c)(iii)	
(iv) Notifications; The system should provide the ability to automatically alert staff when items reach reorder point levels.	E5.3(c)(iv)	
(v) Inventory Access Control; The system should provide the ability to permit only active supplies to be available for use and the ability to permit access to inventories to only authorized staff.	E5.3(c)(v)	
<Inventory Management Proponent Response>		

FORM N: PROPONENT PROPOSAL (See B16) Request For Proposal For A City of Winnipeg - Water & Waste Department Operational Management System		
(d) Equipment Status Tracking: Explain how your system provides the ability to track specialty equipment and usage related to work activities. Examples of such equipment include Temporary Water Tanks and Water Service Thawing Equipment that are dispatched to various locations on a daily or weekly basis. *Include any additional information regarding equipment status tracking that may be of interest to the City of Winnipeg.*	E5.3(d)	
(i) Equipment Deployment Tracking; The system should provide a means to track and display the location of and associate with specific incident(s), service request(s) and/or work orders. Status must be available for a piece of equipment including but not limited to In Service, Out of Service, Under Repair, etc.	E5.3(d)(i)	
(ii) Equipment Usage; The system should provide the ability to track equipment usage, including hours used,, maintenance work and costs, etc.	E5.3(d)(ii)	
<Equipment Status Tracking Proponent Response>		
(e) Resource Tracking: Explain how your system provides the ability to track and summarize costs for all labour incurred based on resource usage transactions and/or invoice entries. *Include any additional information regarding resource tracking that may be of interest to the City of Winnipeg.*	E5.3(e)	
(i) Labour Tracking; The system should be able to assign and track labour costs for both internal (staff) and external resources (contracted services). Labour may be tracked by time period for both individuals and crews for internal or by invoice total for external resources.	E5.3(e)(i)	
(ii) Labour Types; The system should be able to track differentiated labour types including but not limited to standard, overtime, double time, etc. for both individuals and crews.	E5.3(e)(ii)	
(iii) Crew Management; The system should be able to organize staff into operational crews and manage assignment to activities. The system should support contact information for crews and/or crew members to centralize communications.	E5.3(e)(iii)	
(iv) Cost Tracking; The system should be able to track and summarize costs associated with all activities and work managed by the OMS. This includes costs for labour time, inventory stock items/materials, contracted services, equipment usage, etc.	E5.3(e)(iv)	
<Resource Tracking Proponent Response>		

FORM N: PROPONENT PROPOSAL		
(See B16)		
Request For Proposal For A City of Winnipeg - Water & Waste Department Operational Management System		
E5.4 Mobile Computing		
(a) **Field Data Capture:** Explain how the system allows crews to record asset and work order information related to activities performed in the field. All data captured from mobile devices must include auditable information such as date/time, user and location. *Include any additional information regarding field data capture that may be of interest to the City of Winnipeg.*	E5.4(a)	
(i) Asset Information; The system should provide the ability to update asset information including but not limited to operational status, location references, asset condition photos, and situational comments.	E5.4(a)(i)	
(ii) Location Guidance; The mobile platform should provide guidance for locating assets in the field, based on geospatial coordinates.	E5.4(a)(ii)	
(iii) Activity Information; The system should provide capabilities for crews to add and update information related to work activities (work orders, service requests and incidents).	E5.4(a)(iii)	
(iv) Device Features; Explain how your solution takes advantage of common features found on mobile computing platforms including camera, audio recorder, GPS, calendar, SMS, barcode scanner, etc.	E5.4(a)(iv)	
<Field Data Capture Proponent Response>		
(b) **Field Dispatched Work:** Explain how the system is capable of dispatching and notifying mobile crews of new work assignments and referencing associated assets while in the field, along with associated asset information. *Include any additional information regarding field dispatched work that may be of interest to the City of Winnipeg.*	E5.4(b)	
(i) Receipt of Work; The system should provide the ability for a technician in the field to acknowledge a work assignment has been received.	E5.4(b)(i)	
(ii) Communications; The system should support the notification of work assignments via Short Message Service (SMS) and email, with links directly to work activities in the OMS.	E5.4(b)(ii)	
<Field Dispatched Work Proponent Response>		

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(c) **Connectivity:** Explain what methods the system utilizes to connect mobile features with the main OMS to share information between field crews and back-office staff. Include any limitations of your system to support real-time updates between mobile devices and the main OMS. *Include any additional information regarding the upload and download of field data that may be of interest to the City of Winnipeg.*	E5.4(c)	
(i) Online Mode; The system should be capable of transmitting work order and asset information between the OMS when the device has network connectivity.	E5.4(c)(i)	
(ii) Offline Mode; The system should be capable of operating "offline", when there is no network connectivity to the main system. Describe how you system operates in such mode and how data is synchronized once network connectivity is re-established.	E5.4(c)(ii)	
<Upload/Download Field Data Proponent Response>		
(d) **Field Resource Access:** Explain how the system provides access to support material in the field. *Include any additional information regarding field resource access that may be of interest to the City of Winnipeg.*	E5.4(d)	
(i) Supporting Material; The system should allow access to the following types of resources: work instructions, standard operating procedures, drawings, images, maps, as well as prior work orders, and asset information.	E5.4(d)(i)	
(ii) Incident and Asset History; The system should have access to historical records associated with assets and location based incidents, previously recorded in the OMS.	E5.4(d)(ii)	
<Field Resource Access Proponent Response>		

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E5.5 Data Integration

(a) GIS / Asset Registry Integration; The source of record for all underground, linear-based water and wastewater assets is the City's corporate GIS. Explain how and what methods your system supports for referencing these GIS feature classes (assets) and their related information from the OMS. Provide a description of key considerations for the city to develop an integration strategy for synchronization of information between the OMS and GIS. See Appendix G Water Services Feature Classes for a listing of proposed assets (feature classes) that should be available from the OMS. *Include any additional information regarding asset registry integration that may be of interest to the City of Winnipeg.*	E5.5(a)	
<GIS/Asset Registry Integration Proponent Response>		
(b) Enterprise Application Integration; Explain how and what methods your solution provides to interface with various systems. *Include any additional information regarding enterprise application integration that may be of interest to the City of Winnipeg.*	E5.5(b)	
(i) Lagan 311; The system must provide capability to interface between the call center system and the OMS to facilitate the exchange of information as described in Appendix A Solution Architecture section 2(b). Include any industry-based standards used for interfacing.	E5.5(b)(i)	
(ii) PeopleSoft; The system must provide capability to interface between the corporate enterprise resource and planning (ERP) system and the OMS to facilitate the exchange of information as described in Appendix A Solution Architecture section 2(c). Include any industry-based standards used for interfacing.	E5.5(b)(ii)	
(iii) Other Enterprise Applications; The system must provide capability to interface between applications currently operating in the Water and Waste Department and the OMS to facilitate the exchange of information as it pertains to the overall solution. Describe what tools/methods/approaches are available and any industry-based standards used for interfacing.	E5.5(b)(iii)	
<Enterprise Application Integration Proponent Response>		

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E5.6 Reporting		
(a) Reports and Queries: Provide a thorough description of the reporting capabilities of your solution. The system must provide versatile and robust reporting solution that displays OMS data in a variety of formats, allows for drill down, and includes the ability to query work orders, asset information, and other pertinent system data as well as formal predefined reports. Provide a listing of all standard reports that are included with your system "out of the box". *Include any additional information regarding reports and queries that may be of interest to the City of Winnipeg.*	E5.6(a)	
(i) Export Formats; The system should provide the ability to export tabular data in a variety of formats, including but not limited to: XLS, TXT and CSV.	E5.6(a)(i)	
(ii) Simplified Data Access; The system should provide a business-centric logical representation of the main data entities and subject matter managed in the OMS, to facilitate ease in defining data queries and reports by non-technical business users.	E5.6(a)(ii)	
(iii) Templates: The system should provide the ability to define templates for generating standard reports and documents that incorporate data from the OMS. Such a feature may be used for generating form letters and notices residents to notify them of up-coming work activities in their area. Various document formats should be supported such as DOC, PDF, and RTF.	E5.6(a)(iii)	
(iv) Spatial Query Support; The system should provide the ability to display query results in both tabular and spatial representation. The system should be capable of supporting spatial queries on various data entities managed within the OMS. Users may use such capability to identify and display (for example) various types of incidents, service requests, or work orders that match search criteria and/or fall within a user defined polygon and/or time frame.	E5.6(a)(iv)	
(v) Spatial Data Export; The system should provide the ability to export geospatial data related to core business entities managed within the OMS; including work orders, incidents, complaints, etc.	E5.6(a)(v)	
<Reporting Proponent Response>		

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(b) Performance Monitoring: Explain how the system is capable of defining and presenting summary level information representing operational business metrics and Key Performance Indicators (KPIs) of various subject areas pertinent to the Water and Waste Department. *Include any additional information regarding dashboards and KPIs that may be of interest to the City of Winnipeg.*	E5.6(b)	
(i) Performance Tracking; The system should provide the ability for KPIs to track and display comparisons targets on scorecards and incorporate the use of a variety of graphical and tabular data visualizations, the ability to drill down from KPIs to examine a further level of detail, and the ability to provide automated individual and aggregate workload and productivity reporting on all operational and administrative activities.	E5.6(b)(i)	
(ii) User-Defined Dashboards; The system should provide the capability to define standard dashboards, pre-configured for various user roles of the system. Privileged users should have the ability to create user-defined dashboards. Dashboards should be interactive allowing users to filter dashboard metrics and to drill-down into detailed information where applicable.	E5.6(b)(ii)	
<Performance Monitoring Proponent Response>		

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E6 Technical and Non-Functional Requirements

E6.1 Technical Architecture

(a) **Technical Architecture:** Describe the system architecture of your proposed solution. Include any models and descriptions necessary to convey an understanding of business function, application components, information/data and technology architectural perspectives of your solution. *Include any additional information regarding technical architecture that may be of interest to the City of Winnipeg.*	E6.1(a)	
(i) Platform & Standards; Include in your description the underlying technology platform and standards incorporated within your solution. Include programming language, software development standards, protocols, etc. Describe the main components of the solution and deployment on hardware hosting platform.	E6.1(a)(i)	
(ii) Component Dependencies; Describe the use of any open-source and/or third-party components on which your solution depends, and their respective suppliers.	E6.1(a)(ii)	
<Technical Architecture Proponent Response>		
(b) **Infrastructure Requirements:** Describe your recommendations for a proposed hosting environment for your solution. Include both the Minimum and Recommended resource specifications (RAM, CPU, etc.) for all servers (application, file system, database, web, etc.) to meet the user and workload metrics (Appendix H Water Services Volume Metrics) and projections described in Appendix B. Provide a description and/or diagram explaining the deployment of your main solution components on the recommended server. Indicate how your solution aligns with our current infrastructure described in section B3. Provide a list of any and all hardware and/or software components that are NOT included in your proposal, but will be required to operate your solution in the City of Winnipeg environment (e.g. Database Backup solution, Enterprise Job Scheduler, etc.). *Include any additional information regarding infrastructure requirements that may be of interest to the City of Winnipeg.*	E6.1(b)	
(i) Pre-Production; Used for a variety of purposes over lifespan of implementation including training new staff, testing configuration changes, testing software upgrades, etc.	E6.1(b)(i)	
(ii) Production; Used by end-users for regular business operations.	E6.1(b)(ii)	

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<Infrastructure Requirements Proponent Response>		
(c) **System Management:** Describe the system management activities and processes required to operate and maintain the vitality of your proposed solution over time. *Include any additional information regarding system management that may be of interest to the City of Winnipeg.*	E6.1(c)	
(i) Skills; Describe the skillsets and level of expertise required to perform system management activities.	E6.1(c)(i)	
(ii) Release Management; Describe your typical software release cycle, addressing scope and frequency of major and minor versions, hot fixes, patches, etc. Describe your recommended release management method used by customers to upgrade to new versions of the software, including roles and responsibilities for City of Winnipeg staff and/or your support group.	E6.1(c)(ii)	
(iii) Future Needs; Describe how customers can submit suggestions and/or requests for future enhancements to the base product and how these are incorporated into your product roadmap.	E6.1(c)(iii)	
(iv) Licensing Model; Describe your licensing model (user-based, server-based, etc. and how it relates to pricing. If applicable, include any information pertinent to the selection of particular licensing options, such as number of users, volume of data or access to product features.	E6.1(c)(iv)	
(v) Configuration; Describe the main configuration points of your solution, designed to accommodate future requirements. This may include, but is not limited to the addition of new asset types/categories, implementation of business rules and/or workflows, addition or modification of standard reports, etc.	E6.1(c)(v)	
<System Management Proponent Response>		
(d) **Security:** Describe the various aspects of your solution that address the security requirements and considerations for the system. *Include any additional information regarding security that may be of interest to the City of Winnipeg.*	E6.1(d)	
(i) Active Directory; The system should provide the ability to integrate with the City of Winnipeg's Corporate User Directory (MS Windows Server 2012 Active Directory).	E6.1(d)(i)	
(ii) Standards; The system should provide the ability for data encryption over non-secured network (e.g. internet).	E6.1(d)(ii)	

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(iii) Access; The system should provide the ability to manage authentication and authorization information (users, roles, groups, access control levels, etc.). Describe the features and capabilities used to control access (granted/denied) and user profile and session management.	E6.1(d)(iii)	
(iv) Audit; The system should provide a configurable and robust audit trail mechanism, capable of recording changes to key information along with the corresponding date, time, user who made the change. Provide a listing of all information that is audited in this manner. Explain how such auditing information is made available for review by end-users and/or system administrators.	E6.1(d)(iv)	
<Security Proponent Response>		
(e) Performance: Describe the typical performance characteristics that the City of Winnipeg should expect from your system when operating under normal operating conditions. Include any differences in performance characteristics that may be recognizable between different operating platforms, such as desktops and mobile devices. *Include any additional information regarding performance that may be of interest to the City of Winnipeg.*	E6.1(e)	
(i) Startup Performance; Describe performance expectations for application startup and user login.	E6.1(e)(i)	
(ii) Standard Tasks Performance; Describe performance expectations for updates to work orders, service requests, preventative maintenance programs and refreshing of location-based map view of incidents.	E6.1(e)(ii)	
(iii) Reporting Performance; Describe performance expectations for standard report generation (standard, pre-defined reports).	E6.1(e)(iii)	
(iv) Scalability; Describe the capability of your solution to scale to accommodate increased user demands, peak load times, and other high volume usage scenarios.	E6.1(e)(iv)	
(v) Bandwidth; Describe any specific requirements your solution may have for network connectivity bandwidth.	E6.1(e)(v)	
<Performance Proponent Response>		

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(f) Availability: Describe the capabilities of your solution to meet the availability requirements noted below. *Include any additional information regarding availability that may be of interest to the City of Winnipeg.*	E6.1(f)	
(i) Standard Availability Requirements; All functions of the system must be available for use 24 hours a day, 7 days per week, 365 days per year, excluding scheduled outages.	E6.1(f)(i)	
(ii) Recovery; Describe your recommendations and/or requirements for your solution configuration to meet the following objectives in the event of a system failure: Recovery Time Objective (RTO) is return to normal departmental operations within 4 hours of failure. Recovery Point Objective (RPO) is to return the departmental business operations to a state within 2 hours prior to system failure.	E6.1(f)(ii)	
<Availability Proponent Response>		
(g) **Support:** Describe the support and maintenance services you plan to offer post implementation, including Service Level Agreements (SLAs), that align with the pricing in Form B. Be specific and include all options for support levels/methods, and time of availability. Include delineation between tasks for which the City of Winnipeg will be responsible versus those that your support services will provide. *Include any additional information regarding support that may be of interest to the City of Winnipeg.*	E6.1(g)	
(i) Support types; Describe the types of Business and Technical support typically offered to and used by your customers. Include any limitations, restrictions, or constraints for accessing your support services.	E6.1(g)(i)	
(ii) Incident Management and Escalation; Describe your customer facing and internal processes for managing incidents, including issue classification and escalation approach.	E6.1(g)(ii)	
<Support Proponent Response>		

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(h) Usability: Describe how your solution is designed to be user-friendly and intuitive. Include a robust description of the global design features within the system that assist and guide the user through an aesthetically appealing experience when performing routine tasks. The City of Winnipeg describes usability as the capability of the software to be understood, learned, used, and attractive to the user. In your response, please consider the points below. *Include any additional information regarding usability that may be of interest to the City of Winnipeg.*	E6.1(h)	
(i) Understandability; The system should demonstrate the following characteristics: Descriptions and demonstrations are available to system users. Guides and context sensitive messages are displayed to system users.	E6.1(h)(i)	
(ii) Learnability; The system should demonstrate the following characteristics: Functions can be absorbed quickly. Functions and flows within the system are intuitive and require actions that are discreetly defined and apparent.	E6.1(h)(ii)	
(iii) Operability; The system should demonstrate the following characteristics: There is consistency across functions and screens. Common data elements can be selected rather than entered. Colour coding and conditional formatting is used to indicate status/state of a system artifact or data element. Icons and images are used, where beneficial to the user experience. Data visualization techniques are applied, to facilitate understanding of presented data. Navigation through the system functions is clear. Self-explanatory messages that clearly indicate resolutions are present where appropriate. The ability to undo actions is provided where appropriate.	E6.1(h)(iii)	
(iv) Attractiveness; The system should demonstrate the following characteristics: Screen layouts are aesthetically pleasing. Aesthetically pleasing colours are used consistency throughout the application. The application has a modern look and feel when using system functions.	E6.1(h)(iv)	
<Usability Proponent Response>		