



THE CITY OF WINNIPEG

REQUEST FOR PROPOSAL

BID OPPORTUNITY NO. 469-2015

**NORTH END SEWAGE TREATMENT PLANT SLUDGE AUTO-LOADING CONTROL
SYSTEM DESIGN AND REPLACEMENT**

Bids shall be submitted to:

**The City of Winnipeg
Corporate Finance Department
Materials Management Division
185 King Street, Main Floor
Winnipeg MB R3B 1J1**

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PART B - BIDDING PROCEDURES

B1. CONTRACT TITLE

- B1.1 North End Sewage Treatment Plant Sludge Auto-Loading Control System Design and Replacement.

B2. SUBMISSION DEADLINE

- B2.1 The Submission Deadline is 12:00 noon, Winnipeg time October 23, 2015.
- B2.2 Bids determined by the Manager of Materials to have been received later than the Submission Deadline will not be accepted and will be returned upon request.
- B2.3 The Contract Administrator or the Manager of Materials may extend the Submission Deadline by issuing an addendum at any time prior to the time and date specified in B2.1.

B3. SITE INVESTIGATION

- B3.1 The Contract Administrator or an authorized representative will conduct a Site Investigation tour of the NEWPCC at 9am on the 9th of October 2015.
- B3.2 The Proponent is advised that attendance at the Site investigation is strongly advised to judge the challenges of the control system replacement, the complexity of the sludge distribution, and the challenges in investigating, collecting and otherwise verifying the required data necessary to undertake the Work.
- B3.3 The Proponent shall not be entitled to rely on any information or interpretation received at the Site Investigation unless that information or interpretation is the Proponents direct observation, or is provided by the Contract Administrator in writing.
- B3.4 Proponents are requested to register for the Site Investigation by contacting the Contract Administrator in D2.
- B3.5 Registration requests shall identify the Proponent, their contact information, names of intended attendees and date of attendance.
- B3.6 Proponents are to meet at the reception area of the NEWPCC located at 2230 Main Street, Winnipeg, Manitoba, for the NEWPCC site investigation.
- B3.7 Proponents are required to provide their own Personal Protective Equipment (PPE); at a minimum of hard hat, safety footwear, safety glasses and flashlights.

B4. ENQUIRIES

- B4.1 All enquiries shall be directed to the Contract Administrator identified in D2.
- B4.2 If the Proponent finds errors, discrepancies or omissions in the Bid Opportunity (RFP), or is unsure of the meaning or intent of any provision therein, the Proponent shall promptly notify the Contract Administrator of the error, discrepancy or omission at least five (5) Business Days prior to the Submission Deadline.
- B4.3 If the Proponent is unsure of the meaning or intent of any provision therein, the Proponent should request clarification as to the meaning or intent prior to the Submission Deadline.

- B4.4 Responses to enquiries which, in the sole judgment of the Contract Administrator, require a correction to or a clarification of the Bid Opportunity will be provided by the Contract Administrator to all Proponents by issuing an addendum.
- B4.5 Responses to enquiries which, in the sole judgment of the Contract Administrator, do not require a correction to or a clarification of the Bid Opportunity will be provided by the Contract Administrator only to the Proponent who made the enquiry.
- B4.6 All correspondence or contact by Proponents with the City in respect of this Bid Opportunity must be directly and only with the Contract Administrator. Failure to restrict correspondence and contact to the Contract Administrator may result in the rejection of the Proponent's submission.
- B4.7 The Proponent shall not be entitled to rely on any response or interpretation received pursuant to B4 unless that response or interpretation is provided by the Contract Administrator in writing.

B5. CONFIDENTIALITY

- B5.1 Information provided to a Proponent by the City or acquired by a Proponent by way of further enquiries or through investigation is confidential. Such information shall not be used or disclosed in any way without the prior written authorization of the Contract Administrator. The use and disclosure of the confidential information shall not apply to information which:
- (a) was known to the Proponent before receipt hereof; or
 - (b) becomes publicly known other than through the Proponent; or
 - (c) is disclosed pursuant to the requirements of a governmental authority or judicial order.
- B5.2 The Proponent shall not make any statement of fact or opinion regarding any aspect of the Bid opportunity to the media or any member of the public without the prior written authorization of the Contract Administrator.

B6. CONFLICT OF INTEREST AND GOOD FAITH

- B6.1 Proponents must not include among their team, any business entity or individual who is, or is associated with, in any way, any consultant retained by the City in relation to the Project, including but not limited to consultants providing engineering, architectural, legal, process, finance or financial capacity advice or any Person likely to create a conflict of interest or a perception of conflict of interest.
- B6.2 If a Proponent considers that a particular relationship or association does not create a conflict of interest and will not create a perception of conflict of interest, but is concerned that the City could arrive at a different conclusion, the Proponent should fully disclose the circumstances to the City at the earliest possible date, and request that the City provide an advance interpretation as to whether the relationship or association will be likely to create a conflict of interest or a perception of conflict of interest.
- B6.3 The Proponent declares that in submitting its response to this RFP, it does so in good faith and will disclose to the best of its knowledge, whether there are any circumstances whereby any member of Council or any officer or employee of the City would gain any pecuniary interest, direct or indirect, as a result of the Proponents participation in this Project.
- B6.4 Failure to comply with this provision may result in disqualification of your Submission from the RFP process or, if the City becomes aware of your breach of this provision after the RFP has been issued, disqualification from the RFP process.

B7. NO COLLUSION

- B7.1 Upon making a Submission to this RFP, each Proponent shall declare that they have not participated in any collusive scheme or combine.
- B7.2 Proponents must ensure that their participation in this RFP is conducted without collusion or fraud on their part or any of their team. Proponents and their team members shall not engage in discussions or other communications with any other Proponents or their team members regarding the preparation or submission of their responses to this RFP. Breach of this provision may result in disqualification from the RFP process.

B8. NO LOBBYING

- B8.1 Any form of political or other lobbying whatsoever in relation to the Project or with a view to influencing the outcome of this RFP process is strictly prohibited. Failure to comply with this provision may result in disqualification from the RFP process.

B9. ADDENDA

- B9.1 The Contract Administrator may, at any time prior to the Submission Deadline, issue Addenda correcting errors, discrepancies or omissions in the Bid Opportunity, or clarifying the meaning or intent of any provision therein.
- B9.2 The Contract Administrator will issue each addendum at least two (2) Business Days prior to the Submission Deadline, or provide at least two (2) Business Days by extending the Submission Deadline.
- B9.2.1 Addenda will be available on the Bid Opportunities page at The City of Winnipeg, Corporate Finance, Materials Management Division website at <http://www.winnipeg.ca/matmgt/bidopp.asp>
- B9.2.2 The Proponent is responsible for ensuring that it has received all Addenda and is advised to check the Materials Management Division website for Addenda regularly and shortly before the Submission Deadline, as may be amended by addendum.
- B9.3 The Proponent shall acknowledge receipt of each addendum in Paragraph 9 of Form A: Proposal. Failure to acknowledge receipt of an addendum may render a Proposal non-responsive.

B10. SUBSTITUTES

- B10.1 The Work is based on the Plant, Materials and methods specified in the Request for Proposal.
- B10.2 Substitutions shall not be allowed unless application has been made to and prior approval has been granted by the Contract Administrator in writing.
- B10.3 Requests for approval of a substitute will not be considered unless received in writing by the Contract Administrator at least ten (10) Business Days prior to the Submission Deadline.
- B10.4 The Proponent shall ensure that any and all requests for approval of a substitute:
- (a) provide sufficient information and details to enable the Contract Administrator to determine the acceptability of the Plant, Material or method as either an approved equal or alternative;
 - (b) identify any and all changes required in the applicable Work, and all changes to any other Work, which would become necessary to accommodate the substitute;
 - (c) identify any anticipated cost or time savings that may be associated with the substitute;

- (d) certify that, in the case of a request for approval as an approved equal, the substitute will fully perform the functions called for by the general design, be of equal or superior substance to that specified, is suited to the same use and capable of performing the same function as that specified and can be incorporated into the Work, strictly in accordance with the proposed work schedule and the dates specified in the Supplemental Conditions for Substantial Performance and Total Performance;
 - (e) certify that, in the case of a request for approval as an approved alternative, the substitute will adequately perform the functions called for by the general design, be similar in substance to that specified, is suited to the same use and capable of performing the same function as that specified and can be incorporated into the Work, strictly in accordance with the proposed work schedule and the dates specified in the Supplemental Conditions for Substantial Performance and Total Performance.
- B10.5 The Contract Administrator, after assessing the request for approval of a substitute, may in his/her sole discretion grant approval for the use of a substitute as an “approved equal” or as an “approved alternative”, or may refuse to grant approval of the substitute.
- B10.6 The Contract Administrator will provide a response in writing, at least five (5) Business Days prior to the Submission Deadline, to the Proponent who requested approval of the substitute.
- B10.6.1 The Contract Administrator will issue an Addendum, disclosing the approved materials, equipment, methods and products to all potential Proponents. The Proponent requesting and obtaining the approval of a substitute shall be responsible for disseminating information regarding the approval to any person or persons he/she wishes to inform.
- B10.7 If the Contract Administrator approves a substitute as an “approved equal”, any Proponent may use the approved equal in place of the specified item.
- B10.8 If the Contract Administrator approves a substitute as an “approved alternative”, any Proponent bidding that approved alternative may base his/her Total Bid Price upon the specified item but may also indicate an alternative price based upon the approved alternative. Such alternatives will be evaluated in accordance with B26.
- B10.9 No later claim by the Contractor for an addition to the Total Bid Price because of any other changes in the Work necessitated by the use of an approved equal or an approved alternative will be considered.
- B10.10 Notwithstanding B10.2 to B10.9 and in accordance with B11.7, deviations inconsistent with the Request for Proposal document shall be evaluated in accordance with B26.1.

B11. PROPOSAL SUBMISSION

- B11.1 The Proposal shall consist of the following components:
- (a) Form A: Bid;
 - (b) Form B: Prices;
- B11.2 The Proposal should also include the following components:
- (a) Experience of Proponent and Subconsultants and Subcontractors (Section C) in accordance with B13.1;
 - (b) Experience of Key Personnel Assigned to the Project (Section D), in accordance with B15;
 - (c) Project Understanding and Methodology (Section E) in accordance with B16; and
 - (d) Project Schedule (Section F) in accordance with B17.

- B11.3 Further to B11.1, all components of the Proposal shall be fully completed or provided in the order indicated, and submitted by the Proponent no later than the Submission Deadline, with all required entries made clearly and completely, to constitute a responsive Proposal.
- B11.4 Further to B11.2, all components of the Proposal should be fully completed or provided in the order indicated, and submitted by the Proponent no later than the Submission Deadline, with all required entries made clearly and completely, to constitute a responsive Proposal
- B11.5 Proponents should submit one (1) unbound 8.5" x 11" original (marked "original") including drawings, six (6) bound copies (copies can be in any size format) and one electronic copy on CD or DVD, for sections identified in B11.1 and B11.2
- B11.6 Proposal format, including type of binding, number of pages, size of pages and, font, etc., will not be regulated, except that the Proposal should be presented in the Sections identified above. Proponents are encouraged to use their creativity to submit a Proposal which provides the requested information for evaluation and other information which illustrates the strength of their team.
- B11.7 Proponents are advised that inclusion of terms and conditions inconsistent with the Request for Proposal, will be evaluated in accordance with B26.1(a).
- B11.8 The Proposal shall be submitted enclosed and sealed in an envelope/package clearly marked with the RFP number and the Proponent's name and address.
- B11.9 Proposals submitted by facsimile transmission (fax) or internet electronic mail (e-mail) will not be accepted.
- B11.10 Proposals shall be submitted to:
The City of Winnipeg
Corporate Finance Department
Materials Management Division
185 King Street, Main Floor
Winnipeg MB R3B 1J1
- B11.11 Any cost or expense incurred by the Proponent that is associated with the preparation of the Proposal shall be borne solely by the Proponent.

B12. PROPOSAL (SECTION A)

- B12.1 The Proponent shall complete Form A: Proposal, making all required entries.
- B12.2 Paragraph 2 of Form A: Bid shall be completed in accordance with the following requirements:
- (a) if the Proponent is a sole proprietor carrying on business in his/her own name, his/her name shall be inserted;
 - (b) if the Proponent is a partnership, the full name of the partnership shall be inserted;
 - (c) if the Proponent is a corporation, the full name of the corporation shall be inserted;
 - (d) if the Proponent is carrying on business under a name other than his/her own, the business name and the name of every partner or corporation who is the owner of such business name shall be inserted.
- B12.2.1 If a Bid is submitted jointly by two or more persons, each and all such persons shall identify themselves in accordance with B12.2.
- B12.3 In Paragraph 3 of Form A: Bid, the Proponent shall identify a contact person who is authorized to represent the Proponent for purposes of the Bid.

- B12.4 Paragraph 10 of Form A: Bid shall be signed in accordance with the following requirements:
- (a) if the Proponent is a sole proprietor carrying on business in his/her own name, it shall be signed by the Proponent;
 - (b) if the Proponent is a partnership, it shall be signed by the partner or partners who have authority to sign for the partnership;
 - (c) if the Proponent is a corporation, it shall be signed by its duly authorized officer or officers and the corporate seal, if the corporation has one, should be affixed;
 - (d) if the Proponent is carrying on business under a name other than its own, it shall be signed by the registered owner of the business name, or by the registered owner's authorized officials if the owner is a partnership or a corporation.
- B12.4.1 The name and official capacity of all individuals signing Form A: Proposal should be printed below such signatures.
- B12.5 If a Bid is submitted jointly by two or more persons, the word " Proponent " shall mean each and all such persons, and the undertakings, covenants and obligations of such joint Proponents in the Proposal and the Contract, when awarded, shall be both joint and several.

B13. PRICES (SECTION B)

- B13.1 The Proponent shall state the Fixed Fee price in Canadian funds for each of the items of the Work identified on Form B: Prices.
- B13.1.1 Notwithstanding C12.2.3 (*General Conditions for Construction*), prices on Form B: Prices shall not include the Goods and Services Tax (GST) or Manitoba Retail Sales Tax (MRST, also known as PST), which shall be extra where applicable.
- B13.2 Payments to Non-Resident Contractors are subject to Non-Resident Withholding Tax pursuant to the Income Tax Act (Canada).

B14. EXPERIENCE OF PROPONENT AND SUBCONSULTANTS AND SUBCONTRACTORS (SECTION C)

- B14.1 The Proposal component of the Bid should include;
- (a) General firm profile information of the Proponent and major subconsultant and subcontractor, including years in business, average volume of work, number of employees and other pertinent information. Where applicable, information should be separated into Proponent and Subconsultants / Subcontractors;
 - (b) Their organization and management structure with the locations within Canada and specifically related to the City of Winnipeg;
 - (c) Details demonstrating the history and experience of the Proponent and Subconsultants and Subcontractors in providing expert design and construction on complex automation systems and performing systems integration Work similar to those found in the City's pollution control centres that are similar to the scope of services/work identified in D4.
 - (d) Two reference projects similar to the scope of services/work identified in D4, the Proponent should submit within the project reference:
 - (i) name of the Client, name of the project, and year completed,
 - (ii) description of the project,
 - (iii) copy of the single line diagrams relevant to the control system.
 - (iv) reference information (two current names with telephone numbers per project). The references shall be from people who are not members of the Proponents

organization or have a financial invested interest in the Proponents organization. These references will be used to confirm the information provided by the Proponent.

- (v) For one project, deemed to be the most similar in complexity, to the City's water pollution control centres provide a copy of the report documentation;
- B14.2 Registration of the firm (Certificate of Authorization) with the Association of Professional Engineers and Geoscientists of the Province of Manitoba (APEGM) for undertaking engineering work in the province of Manitoba, or ability to be registered in the province of Manitoba within thirty (30) Calendar Days.
- B14.3 Registration of employees with APEGM as Professional Engineers, with expertise in the field of automation.
- B14.4 CSA Certification of the Proponent to produce CSA Approved Industrial Control Panels.
- B14.5 The Proponent should also provide the following metrics to aid the City in evaluating their current resources capabilities for the duration of the Work;
- (a) Number of personnel currently allocated simultaneously for 24 hour support;
 - (b) Current estimated response time to send a service technician to a City wastewater treatment facility on an emergency basis;
 - (c) Area of the panel-shop;
 - (d) Number of employees whose position is at minimum 75% related to PLC and HMI programming and commissioning;
 - (e) Number of employees with Schneider Unity Pro formal training;
 - (f) Number of employees with Schneider Unity Pro experience on a project of over 500 I/O;
 - (g) Experience in migration of legacy automation systems to modern replacement automation systems.
- B14.6 Other certifications, registrations, and qualifications related to various manufactures automation systems, automation institutions and other applicable global recognitions.
- B15. EXPERIENCE OF KEY PERSONNEL ASSIGNED TO THE PROJECT (SECTION D)**
- B15.1 Include an organizational chart for the Project.
- B15.2 Describe your approach to overall team formation and coordination of your team members within the project and with the City. The description should be specific to the need of this project and not a set of generic statements.
- B15.3 Key Personnel team members working on this project the City would expect to see named for the project are as follows;
- (a) Project manager;
 - (b) If the Proponent has a panel shop, the key individual responsible for supervising and ensuring quality control of the panel shop;
 - (c) Lead programming code developers;
 - (d) Lead HMI & SCADA graphics developers;
 - (e) Lead site commissioning technicians;
 - (f) The professional engineer responsible for sealing the systems integration work, and
 - (g) Person who will conduct the training of City operation and maintenance staff.

- B15.4 Further to B15.3, the Proponent should also present other team members they feel add evidence to demonstrating the capability of their offering to the City who would be working on this project.
- B15.5 Submit the experience and qualifications of the Key Personnel assigned to the Project for projects of similar complexity, scope and value to this project. Include educational background and degrees, professional recognition, job title, years of experience in current position, years of experience in design and construction, the company which they are employed by and years of experience with existing employer. Roles of each of the Key Personnel in the Project should be identified in the organizational chart referred to in B15.1.
- B15.6 For each person identified, list at least two comparable projects in which they have played a primary role. If a project selected for a key person is included in B13.1, provide only the project name and the role of the key person. For other projects provide the following:
- (a) Description of project;
 - (b) Role of the person;
 - (c) Project Owner;
 - (d) Reference information (two current names with telephone numbers per project. The references shall be from people who are not members of the Proponents organization or have a financial invested interest in the Proponents organization. These references will be used to confirm the information provided by the Proponent.
- B15.7 If a key individual proposed in B15 to work on the project requires substitution at a later date because of an unforeseen reason outside of the control of the Proponent, the Proponent shall propose an alternative individual to the Contract Administrator. Acceptance of the substitute will be the decision of the Contract Administrator.
- B15.8 All references provided by the Proponents shall be current and correct, should a reference be unattainable or uncontactable during three (3) separate attempts over three (3) consecutive weeks, the City will assign a score of zero (0) for that specific section of the Submission during the evaluation.
- B15.9 Reference checks to confirm information provided by the Proponent may not be restricted to only those submitted by the Proponent, and may include organizations representing Persons, known to have done business with the Proponent.

B16. PROJECT UNDERSTANDING AND METHODOLOGY (SECTION E)

- B16.1 Describe your firm's project management approach and team organization during the performance of Services specific to this project, so that the evaluation committee has a clear understanding of the methods the Proponent will use in the delivery of this Work.
- B16.2 Methodology should be presented in accordance with the Scope of Services identified in D4.
- B16.3 Describe the collaborative process/method to be used by the Key Personnel of the team in the various phases of the Project with the City, how requests for information will be handled, and resolution of design reviews and comments are undertaken.
- B16.4 The City may require the Contractor to provide assistance with the sludge auto-loading system during normal hours of operation and outside of normal hours of operation as needed should an issue with the replaced system arise. This as per need assistance is required 24 hours a day seven days a week for the duration of the Contract. The Methodology section shall include a description of how this would be provided.
- B16.5 Proposals should address;

- (a) the team's understanding of the broad functional and technical requirements of the work;
- (b) the proposed methodology for quality control/quality assurance during the development and implementation of the Work, and;
- (c) any other issue that conveys your team's understanding of the Work requirements.

B16.6 The Proponent should include time estimates by work activity and in total, including hourly rates, for each person identified in B15.3. Time estimates should also include all staff associated with the project including survey, drafting, clerical and any other support staff. A Consultant RFP Bidding Form has been included in Appendix I in excel format for convenience.

B17. PROJECT SCHEDULE (SECTION F)

B17.1 Proponents should present a carefully considered Critical Path Method schedule using Microsoft Project or similar project management software complete with resource assignments (key designers), durations (weekly timescale) and milestone dates or events. The schedule should address each requirement of the Scope of Services.

B17.2 The schedule should address each requirement and be complete with;

- (a) Resource Assignments (key personnel);
- (b) Activity durations (weekly time scale);
- (c) Milestone submission dates or events;
- (d) The Proponents schedule should include;
 - (i) A minimum of three (3) weeks for reviews by the City unless otherwise agreed. The review should be commensurate to the number of pages and complexity of the document, and;
 - (ii) Adequate time for the award of tender documents by the City – Award of Contract specified in this Bid opportunity may take a minimum of (3) three months after evaluation.
- (e) Project deliverables and constraints;
- (f) The Proponents shall identify how long after award of the Contract that the work can be completed. The City wishes this process to be expedited as much as possible.

B18. DISCLOSURE

B18.1 Various Persons provided information or services with respect to this Work. In the City's opinion, this relationship or association does not create a conflict of interest or will likely not create a conflict of interest or will not likely create a perception of conflict of interest because of this full disclosure and related information.

B18.2 The organizations are:

- (a) VWNA Winnipeg Inc, (Veolia)

B19. ELIGIBILITY

B19.1 As a result of their involvement in the NEWPCC sludge auto-loading control system design and replacement, VWNA (Winnipeg) Inc. (Veolia) or their affiliates are not eligible to participate as a Consultant, Subconsultant, member of consortium, Contractor, Subcontractor etc. for the replacement of the NEWPCC sludge auto-loading control system.

B20. QUALIFICATION

B20.1 The Proponent shall:

- (a) undertake to be in good standing under The Corporations Act (Manitoba), or properly registered under The Business Names Registration Act (Manitoba), or otherwise properly registered, licensed or permitted by law to carry on business in Manitoba, or if the Proponent does not carry on business in Manitoba, in the jurisdiction where the Proponent does carry on business; and
- (b) be financially capable of carrying out the terms of the Contract;
- (c) have all the necessary experience, capital, organization, and equipment to perform the Services in strict accordance with the terms and provisions of the Contract;
- (d) have or establish and staff an office in Winnipeg for the duration of the Project, and;
- (e) shall not have previously been removed from a City site in relation to failed Systems Integration work.

B20.2 The Proponent and any proposed Subcontractor / Subconsultant (for the portion of the Services proposed to be subcontracted to them) shall:

- (a) be responsible and not be suspended, debarred or in default of any obligations to the City. A list of suspended or debarred individuals and companies is available on the Information Connection page at The City of Winnipeg, Corporate Finance, Materials Management Division website at <http://www.winnipeg.ca/matmgt/debar.stm>

B20.3 The Proponent and/or any proposed Subcontractor / Subconsultant (for the portion of the Services proposed to be subcontracted to them) shall:

- (a) have successfully carried out services for performing control system replacements for projects of similar complexity, scope and value; and to those required for this Work; and
- (b) be fully capable of performing the Services required to be in strict accordance with the terms and provisions of the Contract;
- (c) have a written workplace safety and health program, if required, pursuant to The Workplace Safety and Health Act (Manitoba);
- (d) have the knowledge and resources to administer the requirements of The Workplace Safety and Health Act (Manitoba) during the on-site Work activities associated with this Contract; and
- (e) undertake to meet all licensing and regulatory requirements of the appropriate governing authorities and associations in the Province of Manitoba.

B20.4 The Proponent shall submit, within three (3) Business Days of a request by the Contract Administrator, further proof satisfactory to the Contract Administrator of the qualifications of the Proponent and of any proposed Subcontractor / Subconsultant.

B20.5 The Proponent shall provide, on the request of the Contract Administrator, full access to any of the Proponents equipment and facilities to confirm, to the Contract Administrator's satisfaction, that the Proponents equipment and facilities are adequate to perform the Services.

B21. OPENING OF BIDS AND RELEASE OF INFORMATION

B21.1 Bids will not be opened publicly.

B21.2 After award of Contract, the names of the Proponents and the Contract amount of the successful Proponent will be available on the Closed Bid Opportunities (or Public/Posted Opening & Award Results) page at The City of Winnipeg, Corporate Finance, Materials Management Division website at <http://www.winnipeg.ca/matmgt/> .

B21.3 To the extent permitted, the City shall treat all Bid Submissions as confidential. However, the Proponent is advised that any information contained in any Bid may be released if required by City policy or procedures, by The Freedom of Information and Protection of Privacy Act (Manitoba), by other authorities having jurisdiction, or by law.

B21.4 Following the award of Contract, a Proponent will be provided with information related to the evaluation of its submission upon written request to the Project Manager.

B22. IRREVOCABLE OFFER

B22.1 The Bids(s) submitted by the Proponent shall be irrevocable for the time period specified in Paragraph 9 of Form A: Proposal.

B22.2 The acceptance by the City of any Proposal shall not release the Proposals of the other responsive Proponents and these Proponents shall be bound by their offers on such Services until a Contract for the Services has been duly executed as herein provided, but any offer shall be deemed to have lapsed unless accepted within the time period specified in Paragraph B12 of Form A: Proposal

B23. WITHDRAWAL OF OFFERS

B23.1 A Proponent may withdraw its Proposal without penalty by giving written notice to the Manager of Materials at any time prior to the Submission Deadline.

B23.1.1 The time and date of receipt of any notice withdrawing a Proposal shall be the time and date of receipt as determined by the Manager of Materials.

B23.1.2 The City will assume that any one of the contact persons named in Paragraph 3 of Form A: Proposal or the Proponents authorized representatives named in Paragraph 10 of Form A: Proposal, and only such person, has authority to give notice of withdrawal.

B23.1.3 If a Proponent gives notice of withdrawal prior to the Submission Deadline, the Manager of Materials will:

- (a) retain the Proposal until after the Submission Deadline has elapsed;
- (b) open the Proposal to identify the contact person named in Paragraph 3 of Form A: Proposal and the Proponents authorized representatives named in Paragraph 10 of Form A: Proposal;
- (c) if the notice has been given by any one of the persons specified in B23.1.3(b), declare the Proposal withdrawn.

B23.2 A Proponent who withdraws its Proposal after the Submission Deadline but before its offer has been released or has lapsed as provided for in B22.2 shall be liable for such damages as are imposed upon the Proponent by law and subject to such sanctions as the Chief Administrative Officer considers appropriate in the circumstances. The City, in such event, shall be entitled to all rights and remedies available to it at law.

B24. INTERVIEWS

B24.1 The Contract Administrator may, in his/her sole discretion, interview Proponents during the evaluation process.

B25. NEGOTIATIONS

- B25.1 The City reserves the right to negotiate details of the Contract with any Proponent. Proponents are advised to present their best offer, not a starting point for negotiations in their Proposal Submission.
- B25.2 The City may negotiate with the Proponents submitting, in the City's opinion, the most advantageous Proposal. The City may enter into negotiations with one or more Proponents without being obligated to offer the same opportunity to any other Proponents. Negotiations may be concurrent and will involve each Proponent individually. The City shall incur no liability to any Proponent as a result of such negotiations.
- B25.3 If, in the course of negotiations pursuant to B25.2 or otherwise, the Proponent amends or modifies a Proposal after the Submission Deadline, the City may consider the amended Proposal as an alternative to the Proposal already submitted without releasing the Proponent from the Proposal as originally submitted.

B26. EVALUATION OF PROPOSALS

- B26.1 Award of the Contract shall be based on the following evaluation criteria:
- | | |
|--|-------------|
| (a) compliance by the Proponent with the requirements of the Proposal or acceptable deviation therefrom: | (pass/fail) |
| (b) qualifications of the Proponent and the Subcontractor / Subconsultant, if any, pursuant to B19: | (pass/fail) |
| (c) Form B: Price (Section B) | 40% |
| (d) Experience of Proponent and Subcontractor and Subconsultants; (Section C) | 15% |
| (e) Experience of Key Personnel Assigned to the Project; (Section D) | 25% |
| (f) Project Understanding and Methodology (Section E) | 15% |
| (g) Project Schedule. (Section F) | 5% |
- B26.2 Further to B26.1(a), the Award Authority may reject a Proposal as being non-responsive if the Proposal Submission is incomplete, obscure or conditional, or contains additions, deletions, alterations or other irregularities. The Award Authority may reject all or any part of any Proposal, or waive technical requirements or minor informalities or irregularities if the interests of the City so require.
- B26.3 Further to B26.1(b), the Award Authority shall reject any Proposal submitted by a Proponent who does not demonstrate, in its Proposal or in other information required to be submitted, that it is responsible and qualified.
- B26.4 Further to B26.1(c), Form B: Prices will be evaluated based on Prices submitted in accordance with B13.
- B26.5 Further to B26.1(d), Experience of Proponent and Subcontractor and Subconsultants will be evaluated considering the experience of the organization on projects of similar size and complexity as well as other information requested.
- B26.6 Further to B26.1(e), Experience of Key Personnel Assigned to the Project will be evaluated considering the experience and qualifications of the Key Personnel and Subcontractors / Subconsultants personnel on Projects of comparable size and complexity.
- B26.7 Further to B26.1(f), Project Understanding and Methodology will be evaluated considering your firm's understanding of the City's Project, project management approach and team organization.

- B26.8 Further to B26.1(g), Project Schedule will be evaluated considering the Proponents ability to comply with the requirements of the Project.
- B26.9 Notwithstanding B26.1(d) to B26.1(g), where Proponents fail to provide a response to B11.2(a) to B11.2(d), the score of zero may be assigned to the incomplete part of the response.
- B26.10 Further to B26.1(d) to B26.1(g), Proponents must receive a minimum of 55% (average rating of the review panel) of the allowable marks in each category (d) through (g) in order to be considered as meeting the minimum standard required to undertake this project. Proponents scoring less than 55% in any one category may be determined to be non-responsive.

B27. AWARD OF CONTRACT

- B27.1 The City will give notice of the award of the Contract, or will give notice that no award will be made.
- B27.2 The City will have no obligation to award a Contract to a Proponent, even though one or all of the Proponents are determined to be responsible and qualified, and the Proposals are determined to be responsive.
- B27.2.1 Without limiting the generality of B27.2, the City will have no obligation to award a Contract where:
- (a) the prices exceed the available City funds for the Services;
 - (b) the prices are materially in excess of the prices received for similar services in the past;
 - (c) the prices are materially in excess of the City's cost to perform the Services, or a significant portion thereof, with its own forces;
 - (d) only one Bid is received; or
 - (e) in the judgment of the Award Authority, the interests of the City would best be served by not awarding a Contract.
- B27.3 Where an award of Contract is made by the City, the award shall be made to the responsible and qualified Proponent submitting the most advantageous offer.
- B27.4 The City may, at its discretion, award the Contract in phases.
- B27.5 Further to Paragraph 7 of Form A: Proposal and C4 (*General Conditions for Consultant Services*), the successful Proponent will be provided with Contract documents for execution following issuance of a Letter of Intent.
- B27.6 The form of Contract with the City of Winnipeg will be based on the Contract as defined in C1.1(n) (*General Conditions for Consultant Services*).
- B27.7 Following the award of Contract, a Proponent will be provided with information related to the evaluation of its Proposal upon written request to the Contract Administrator.
- B27.8 If, after the award of Contract, the Project is cancelled, the City reserves the right to terminate the Contract. The Contractor will be paid for all Services rendered up to time of termination.

PART C - GENERAL CONDITIONS

C0. GENERAL CONDITIONS

- C0.1 The *General Conditions for Consultant Services* (Revision 2010-10-01) are applicable to the Services of the Contract.
- C0.1.1 The *General Conditions for Consultant Services* are available on the Information Connection page at The City of Winnipeg, Corporate Finance, Materials Management Division website at http://www.winnipeg.ca/matmgt/gen_cond.stm.
- C0.1.2 The *General Conditions for Consultant Services* shall apply to the following unit items of Form B: Prices;
- (a) Item No.1, Project plan, schedule and cost estimate;
 - (b) Item No.2, Preliminary design and report;
 - (c) Item No.3, Detailed design, and;
 - (d) Item No.4, Transition and installation plan from existing to new system.
- C0.2 The *General Conditions for Construction* (Revision 2006-12-15) are applicable to the Construction of the Contract.
- C0.2.1 The *General Conditions for Construction* are available on the Information Connection page at The City of Winnipeg, Corporate Finance, Materials Management Division website at http://www.winnipeg.ca/matmgt/gen_cond.stm.
- C0.2.2 The *General Conditions for Construction* shall apply to the following unit items of Form B: Prices;
- (a) Item No.5, Construction, programming, testing, installation and commissioning;
 - (b) Item No.6, Operation and Maintenance manuals;
 - (c) Item No.7, On-site training of City staff, and;
 - (d) Item No.8, Hourly rate for on-site technical assistance during first 12 months after substantial completion.
- C0.3 A reference in the Request for Proposal to a section, clause or subclause with the prefix “**C**” designates a section, clause or subclause in the *General Conditions for Consultant Services* or the *General Conditions for Construction*. Each reference in the Request for Proposal to a section, clause or subclause with the prefix “**C**” shall be immediately followed in parentheses with which version of the General Conditions apply in that instance.

PART D - SUPPLEMENTAL CONDITIONS

GENERAL

D1. GENERAL CONDITIONS

D1.1 In addition to the *General Conditions for Consultant Services*, and, the *General Conditions for Construction*, these Supplemental Conditions are applicable to the Services of the Contract.

D2. CONTRACT ADMINISTRATOR

Terry Josephson.

Wastewater Maintenance Engineer.
City of Winnipeg
1199 Pacific Avenue, Unit 111,
City of Winnipeg Water and Waste Department,
Winnipeg, MB, R3E 3S8

Email: TJosephson@winnipeg.ca

Telephone No. 204-986-8609

D2.1 At the pre-commencement meeting, the Contract Administrator will identify additional personnel representing the Contract Administrator and their respective roles and responsibilities for the Services.

D2.2 Proposal Submissions must be submitted to the address in B11.10

D3. BACKGROUND

D3.1 The City requires the Services of a Systems Integrator to perform the design, installation, testing and commissioning of a new automation control system to replicate, enhance and replace the existing sludge auto-loading system controller at the North End Water Pollution Control Centre (NEWPCC).

D3.2 The intent is to contract with a Contractor deemed to be responsive and most advantageous to the City for a fixed fee per the items set out in Form B: Proposal to perform the Work at the NEWPCC.

D4. SCOPE OF SERVICES/WORK

D4.1 The Services required under this Contract shall consist of undertaking systems integration Work at the NEWPCC on the sludge auto-loading system. The work will require:

- (a) Preparation of a project plan outlining a plan of the Work to be done, cost estimate and schedule;
- (b) Site investigation to confirm and collect any and all required data to complete the Work;
- (c) Generation of a preliminary design report inclusive of a preliminary design for the Work based upon City standards for the system to be replaced;
- (d) Generation of a detailed design as a continuation of the preliminary design inclusive of City comments and based upon City standards for the system to be replaced;
- (e) Generation of a transition plan from the existing system to new system with minimal operational downtime and disruption;

- (f) Installation, programming and testing of the new control system at the NEWPCC;
 - (g) Commissioning of the new control system to the satisfaction of the City;
 - (h) Generation of operational and maintenance manuals to document the system, inclusive of programming software developed, drawings, manufacturers literature, and other supporting documentation as required by the City to successfully operate and maintain the system.
 - (i) Providing hands on training on the operation and maintenance of the system to City staff at the NEWPCC site.
- D4.2 Further to D4.1(b), while the City will endeavour to provide documentation of the existing system to be replaced, the current system is an original and uniquely developed system installed several decades ago. As such, some information and documentation may be missing or incomplete and shall remain the responsibility of the Contractor to verify and gather missing information as applicable to complete the Work.
- D4.3 Further to D4.1(f), while the Contractor will ultimately be responsible for the installation and provision of resources to complete the Work, City forces may be made available where required to assist the Contractor with the modification and installation of field wiring outside of the Contractors scope of work.
- D4.4 Further to D4.1(f), all Schneider Electric Canada Inc. hardware and software components required for the Work to be installed at the NEWPCC will be supplied by the City using the City award to Schneider Electric Canada Inc. under RFP 756-2013.
- D4.5 The Contractor shall have sufficient capability and capacity both in the programming hardware they possess and the associated software licences to effectively develop the site automation systems.
- D4.6 The Contractor shall not be dependent upon the City to provide any programming hardware, software, or licences to complete the work, beyond what will be finally installed on the City pollution control centre.

D5. DEFINITIONS

- D5.1 Notwithstanding C1 of the General Conditions, when used in this Bid Opportunity:
- (a) **“ABB”** means the manufacturer ASEA Brown Boveri;
 - (b) **“Commissioning Period”** means the time between the completion of Performance Verification and Total Performance;
 - (c) **“Contract”** means the combined documents consisting of the Request for Proposal package, Bid Opportunity package and any documents and drawings referred to and incorporated therein together with any submissions required to be made by the Contractor after award, and all amendments to the foregoing;
 - (d) **“Contractor” or “Consultant”** are used interchangeably and mean the person undertaking the performance of the work under the terms of the Contract;
 - (e) **“CSA”** means the Canadian standards association international, formerly the Canadian standards association;
 - (f) **“DCS”** means distributed control system, an existing ASEA Brown Boveri INFI90 control system;
 - (g) **“FAT”** means factory acceptance testing;
 - (h) **“FDR” or “Functional Design Requirement”** means a document that will provide the basis of the software and hardware configuration and will be validated during Performance Verification to ensure that all required functions are present and that they operate correctly;

- (i) **“HMI”** means human machine interface, a subsystem of the PCS that provides the operator user interface for the entire water pollution control centre;
- (j) **“intelligent”** means an automation component or system that communicates with the site control system and operates via instructions given and received over a communication medium of a protocol such as Ethernet, PROFIBUS, MODBUS or HART;
- (k) **“I/O”** means input/output;
- (l) **“LHMI”** means local human machine interface, a HMI local to the equipment such as a Schneider Electric Canada Inc. Magelis touchscreen.
- (m) **“MCC”** means motor control centre;
- (n) **“NEWPCC”** means the City of Winnipeg North End Water Pollution Control Centre (North End Sewage Treatment Plant) located at address 2230 Main Street, Winnipeg, Manitoba, R2V 4T8;
- (o) **“PCS”** means process control system. The control system of the water pollution control centre that provides monitoring and control of the wastewater treatment process and ancillary systems, including HVAC and building services;
- (p) **“PLC”** means programmable logic controller, a component of the PCS that performs monitoring and control of processes within the water pollution control centre;
- (q) **“Professional Engineer”** means an engineer registered in the Province of Manitoba;
- (r) **“Proponent” or “Bidder”** are used interchangeably and mean any Person or Persons or consortium submitting a Proposal for services;
- (s) **“Proposal” or “Bid Submission”** are used interchangeably and mean the offer contained within the Proposal Submission;
- (t) **“SAT”** means site acceptance testing;
- (u) **“Submission or Qualification Submission”** means that portion of the Request for Qualifications which must be completed or provided and submitted by the Submission Deadline;
- (v) **“Systems Integrator”** means is a person or company that specializes in bringing together component subsystems into a whole and ensuring that those subsystems function together;
- (w) **“Work” or “Works” or “Services”** are used interchangeably and mean the carrying out and the doing of all things, whether of a temporary or permanent nature, that are to be done pursuant to the Contract and, without limiting the generality of the foregoing, includes the furnishing of all Plant, Material, labour and services necessary for or incidental to the fulfilment of the requirements of the Contract, including all Changes in Work which may be ordered as herein provided;
- (x) **“WWD”** means the City of Winnipeg Water and Waste Department;
- (y) **“WSTP”** means the Winnipeg Sewage Treatment Program being a partnership between the City of Winnipeg and Veolia Water North America.

D6. OWNERSHIP OF INFORMATION, CONFIDENTIALITY AND NON DISCLOSURE

- D6.1 The Contract, all deliverables produced or developed, and information provided to or acquired by the Contractor are the property of the City and shall not be appropriated for the Contractors own use, or for the use of any third party.
- D6.2 The Contractor shall not make any public announcements or press releases regarding the Contract, without the prior written authorization of the Contract Administrator.

- D6.3 The following shall be confidential and shall not be disclosed by the Contractor to the media or any member of the public without the prior written authorization of the Contract Administrator;
- (a) information provided to the Contractor by the City or acquired by the Contractor during the course of the Work;
 - (b) the Contract, all deliverables produced or developed; and
 - (c) any statement of fact or opinion regarding any aspect of the Contract.
- D6.4 A Contractor who violates any provision of D6 may be determined to be in breach of Contract.

SUBMISSIONS PRIOR TO START OF SERVICES

D7. AUTHORITY TO CARRY ON BUSINESS

- D7.1 The Contractor shall be in good standing under The Corporations Act (Manitoba), or properly registered under The Business Names Registration Act (Manitoba), or otherwise properly registered, licensed or permitted by law to carry on business in Manitoba, or if the Contractor does not carry on business in Manitoba, in the jurisdiction where the Contractor does carry on business, throughout the term of the Contract, and shall provide the Contract Administrator with evidence thereof upon request.

D8. INSURANCE

- D8.1 The Contractor shall procure and maintain, at its own expense and cost, insurance policies with limits no less than those shown below.
- D8.2 As a minimum, the Contractor shall, without limiting its obligations or liabilities under any other contract with the City, procure and maintain, at its own expense and cost, the following insurance policies:
- (a) Comprehensive or Commercial General Liability Insurance including:
 - (i) an inclusive limit of not less than \$2,000,000 for each occurrence or accident with a minimum \$2,000,000 Products and Completed Operations aggregate and \$5,000,000 general aggregate;
 - (ii) all sums which the Consultant/Contractor shall become legally obligated to pay for damages because of bodily injury (including death at any time resulting therefrom) sustained by any person or persons or because of damage to or destruction of property caused by an occurrence or accident arising out of or related to the Services or any operations carried on in connection with this Contract;
 - (iii) coverage for Products/Completed Operations, Blanket Contractual, Contractor's Protective, Personal Injury, Contingent Employer's Liability, Broad Form Property Damage, Employees as Additional Insureds, and Non-Owned Automobile Liability;
 - (iv) a Cross Liability clause and/or Severability of Interest Clause providing that the inclusion of more than one Insured shall not in any way affect the rights of any other Insured hereunder in respect to any claim, demand, suit or judgment made against any other Insured;
 - (b) if applicable, Automobile Liability Insurance covering all motor vehicles, owned and operated and used or to be used by the Contractor directly or indirectly in the performance of the Service. The Limit of Liability shall not be less than \$2,000,000 inclusive for loss or damage including personal injuries and death resulting from any one accident or occurrence.
 - (c) Professional Errors and Omissions Liability Insurance including:
 - (i) an amount not less than \$250,000 per claim and \$500,000 in the aggregate.

- D8.2.1 The Contractors Professional Errors and Omissions Liability Insurance shall remain in force for the duration of the Project and for twelve (12) months after total performance.
- D8.3 The policies required in D8.2(a) shall provide that the City is named as an Additional Insured thereunder and that said policies are primary without any right of contribution from any insurance otherwise maintained by the City.
- D8.4 The Contractor shall require each of its Subconsultants to provide comparable insurance to that set forth under D8.2(a) and D8.2(c).
- D8.5 The Contractor shall provide the Contract Manager with a certificate(s) of insurance for itself and for all of its Subconsultants, in a form satisfactory to the City Solicitor, at least two (2) Business Days prior to the commencement of any Services, but in no event later than the date specified in C4.1 (*General Conditions for Consultant Service*) for the return of the executed Contract. Such Certificates shall state the exact description of the Services and provide for written notice in accordance with D8.8.
- D8.6 The Contractor may take out such additional insurance as it may consider necessary and desirable. All such additional insurance shall be at no expense to the City.
- D8.7 All insurance, which the Contractor is required to obtain with respect to this Contract, shall be with insurance companies registered in and licensed to underwrite such insurance in the Province of Manitoba.
- D8.8 The Contractor shall not cancel, materially alter, or cause any policy to lapse without providing at least thirty (30) Calendar Days prior written notice to the City.

D9. PERFORMANCE SECURITY

- D9.1 If the Contract Price exceeds twenty-five thousand dollars (\$25,000.00), the Contractor shall provide and maintain performance security until the expiration of the warranty period in the form of:
- (a) a performance bond of a company registered to conduct the business of a surety in Manitoba, in the form attached to these Supplemental Conditions (Form H1: Performance Bond), in the amount of fifty percent (50%) of the Contract Price; or
 - (b) an irrevocable standby letter of credit issued by a bank or other financial institution registered to conduct business in Manitoba and drawn on a branch located in Winnipeg, in the form attached to these Supplemental Conditions (Form H2: Irrevocable Standby Letter of Credit), in the amount of fifty percent (50%) of the Contract Price; or
 - (c) a certified cheque or draft payable to "The City of Winnipeg", drawn on a bank or other financial institution registered to conduct business in Manitoba, in the amount of fifty percent (50%) of the Contract Price.
- D9.1.1 Where the performance security is in the form of a certified cheque or draft, it will be deposited by the City. The City will not pay any interest on certified cheques or drafts furnished as performance security.
- D9.2 The Contractor shall provide the City Solicitor with the required performance security within seven (7) Calendar Days of notification of the award of the Contract by way of Purchase Order and prior to the commencement of any Work on the Site.

D10. SUBCONTRACTOR LIST

- D10.1 The Contractor shall provide the Contract Administrator with a complete list of the Subcontractors whom the Contractor proposes to engage (Form J: Subcontractor List) at least

two (2) Business Days prior to the commencement of any Work on the Site but in no event later than seven (7) Calendar Days from notification of the award of Contract.

SCHEDULE OF SERVICES

D11. COMMENCEMENT

- D11.1 The Contractor shall not commence any Services until it is in receipt of a notice of award from the City authorizing the commencement of the Services.
- D11.2 The Contractor shall not commence any Services until:
- (a) the Contract Administrator has confirmed receipt and approval of:
 - (i) evidence of authority to carry on business specified in D7;
 - (ii) evidence of the insurance specified in D8;
 - (iii) evidence of Performance Security specified in D9; and
 - (iv) evidence of the Subcontractor List specified in D10.
 - (b) the Contractor has attended a meeting with the Contract Administrator, or the Contract Administrator has waived the requirement for a meeting.
- D11.3 The Contractor shall commence the Consultant aspect of the Work of this Contract, Form B - Item No.1, through to Form B – Item No.4 within seven (7) Working Days of receipt of the Letter of Intent.
- D11.4 The Contractor shall commence the on-site Construction aspect of the Work for Form B - Item No.5, through to Form B – Item No.7 within (7) Working Days of receipt of the letter to proceed with construction. The date of the receipt of the letter to proceed with construction shall constitute the date at which commencement of the Work on Site has started and the date at which Substantial Performance D13 and Total Performance D14 are based from.
- D11.5 The City intends to award this Contract by the 7th of December 2015.

D12. CRITICAL STAGES

- D12.1 The Contractor shall achieve critical stages of the Services for this Contract in accordance with the following requirements:
- (a) A critical stage in the Work will be any stage that requires the existing control system to be taken off line and the sludge loading process to be stopped or inhibited from normal operation. An operable system whether in a permanent or temporary state must be in place before the twenty four (24) hours lapses during shutdown windows provided to facilitate the installation and commissioning phases by the Contractor, or the existing control system is placed back into successful operation. See E13 for additional information on shutdown windows.

D13. SUBSTANTIAL PERFORMANCE

- D13.1 The Contractor shall achieve Substantial Performance within ninety (90) consecutive Working Days of the commencement of the Work on Site as specified in D11.4.
- D13.2 When the Contractor considers the Work to be substantially performed, the Contractor shall arrange, attend and assist in the inspection of the Work with the Contract Administrator for purposes of verifying Substantial Performance. Any defects or deficiencies in the Work noted during that inspection shall be remedied by the Contractor at the earliest possible instance and the Contract Administrator notified so that the Work can be reinspected.

D13.3 The date on which the Work has been certified by the Contract Administrator as being substantially performed to the requirements of the Contract through the issue of a certificate of Substantial Performance is the date on which Substantial Performance has been achieved.

D14. TOTAL PERFORMANCE

D14.1 The Contractor shall achieve Total Performance within one hundred and twenty (120) consecutive Working Days of the commencement of the Work on Site as specified in D11.4.

D14.2 When the Contractor or the Contract Administrator considers the Work to be totally performed, the Contractor shall arrange, attend and assist in the inspection of the Work with the Contract Administrator for purposes of verifying Total Performance. Any defects or deficiencies in the Work noted during that inspection shall be remedied by the Contractor at the earliest possible instance and the Contract Administrator notified so that the Work can be reinspected.

D14.3 The date on which the Work has been certified by the Contract Administrator as being totally performed to the requirements of the Contract through the issue of a certificate of Total Performance is the date on which Total Performance has been achieved.

D15. LIQUIDATED DAMAGES

D15.1 If the Contractor fails to achieve Critical Stages, Substantial Performance or Total Performance in accordance with the Contract by the days fixed herein for same, the Contractor shall pay the City the following amounts per Working Day for each and every Working Day following the days fixed herein for same during which such failure continues:

- (a) Critical stage – One thousand and five hundred dollars (\$1500);
- (b) Substantial Performance - One thousand and five hundred dollars (\$1500);
- (c) Total Performance - One thousand and five hundred dollars (\$1500).

D15.2 The amounts specified for liquidated damages in D15.1 are based on a genuine pre-estimate of the City's losses in the event that the Contractor does not achieve critical stages, Substantial Performance or Total Performance by the days fixed herein for same.

D15.3 The City may reduce any payment to the Contractor by the amount of any liquidated damages assessed.

FORM H1: PERFORMANCE BOND
(See D9)

KNOW ALL MEN BY THESE PRESENTS THAT

_____ ,
(hereinafter called the "Principal"), and

_____ ,
(hereinafter called the "Surety"), are held and firmly bound unto **THE CITY OF WINNIPEG** (hereinafter called the "Obligee"), in the sum of

_____ dollars (\$_____.)

of lawful money of Canada to be paid to the Obligee, or its successors or assigns, for the payment of which sum the Principal and the Surety bind themselves, their heirs, executors, administrators, successors and assigns, jointly and severally, firmly by these presents.

WHEREAS the Principal has entered into a written contract with the Obligee for

BID OPPORTUNITY NO. 469-2015

**NORTH END SEWAGE TREATMENT PLANT SLUDGE AUTO-LOADING CONTROL SYSTEM
DESIGN AND REPLACEMENT**

which is by reference made part hereof and is hereinafter referred to as the "Contract".

NOW THEREFORE the condition of the above obligation is such that if the Principal shall:

- (a) carry out and perform the Contract and every part thereof in the manner and within the times set forth in the Contract and in accordance with the terms and conditions specified in the Contract;
- (b) perform the Work in a good, proper, workmanlike manner;
- (c) make all the payments whether to the Obligee or to others as therein provided;
- (d) in every other respect comply with the conditions and perform the covenants contained in the Contract; and
- (e) indemnify and save harmless the Obligee against and from all loss, costs, damages, claims, and demands of every description as set forth in the Contract, and from all penalties, assessments, claims, actions for loss, damages or compensation whether arising under "The Workers Compensation Act", or any other Act or otherwise arising out of or in any way connected with the performance or non-performance of the Contract or any part thereof during the term of the Contract and the warranty period provided for therein;

THEN THIS OBLIGATION SHALL BE VOID, but otherwise shall remain in full force and effect. The Surety shall not, however, be liable for a greater sum than the sum specified above.

AND IT IS HEREBY DECLARED AND AGREED that the Surety shall be liable as Principal, and that nothing of any kind or matter whatsoever that will not discharge the Principal shall operate as a discharge or release of liability of the Surety, any law or usage relating to the liability of Sureties to the contrary notwithstanding.

IN WITNESS WHEREOF the Principal and Surety have signed and sealed this bond the

_____ day of _____, 20____ .

SIGNED AND SEALED
in the presence of:

(Witness as to Principal if no seal)

(Name of Principal)

Per: _____ (Seal)

Per: _____

(Name of Surety)

By: _____ (Seal)
(Attorney-in-Fact)

**FORM H2: IRREVOCABLE STANDBY LETTER OF CREDIT
(PERFORMANCE SECURITY)**
(See D9)

(Date)

The City of Winnipeg
Legal Services Department
185 King Street, 3rd Floor
Winnipeg MB R3B 1J1

RE: PERFORMANCE SECURITY - BID OPPORTUNITY NO. 469-2015

**NORTH END SEWAGE TREATMENT PLANT SLUDGE AUTO-LOADING CONTROL SYSTEM
DESIGN AND REPLACEMENT**

Pursuant to the request of and for the account of our customer,

(Name of Contractor)

(Address of Contractor)

WE HEREBY ESTABLISH in your favour our irrevocable Standby Letter of Credit for a sum not exceeding
in the aggregate

Canadian dollars.

This Standby Letter of Credit may be drawn on by you at any time and from time to time upon written demand for payment made upon us by you. It is understood that we are obligated under this Standby Letter of Credit for the payment of monies only and we hereby agree that we shall honour your demand for payment without inquiring whether you have a right as between yourself and our customer to make such demand and without recognizing any claim of our customer or objection by the customer to payment by us.

The amount of this Standby Letter of Credit may be reduced from time to time only by amounts drawn upon it by you or by formal notice in writing given to us by you if you desire such reduction or are willing that it be made.

Partial drawings are permitted.

We engage with you that all demands for payment made within the terms and currency of this Standby Letter of Credit will be duly honoured if presented to us at:

(Address)

and we confirm and hereby undertake to ensure that all demands for payment will be duly honoured by us.

All demands for payment shall specifically state that they are drawn under this Standby Letter of Credit.

Subject to the condition hereinafter set forth, this Standby Letter of Credit will expire on

(Date)

It is a condition of this Standby Letter of Credit that it shall be deemed to be automatically extended from year to year without amendment from the present or any future expiry date, unless at least 30 days prior to the present or any future expiry date, we notify you in writing that we elect not to consider this Standby Letter of Credit to be renewable for any additional period.

This Standby Letter of Credit may not be revoked or amended without your prior written approval.

This credit is subject to the Uniform Customs and Practice for Documentary Credit (2007 Revision), International Chamber of Commerce Publication Number 600.

(Name of bank or financial institution)

Per: _____
(Authorized Signing Officer)

Per: _____
(Authorized Signing Officer)

PART E - TECHNICAL SPECIFICATIONS

E1. BACKGROUND

- E1.1 The City of Winnipeg's North End Water Pollution Control Centre, alternatively called the North End Sewage Treatment Plant (NEWPCC) is an existing sewage treatment plant located in north Winnipeg at the address 2230 Main Street, Winnipeg, Manitoba, R2V 4T8.
- E1.2 The City wishes to engage, via a fixed fee, a firm with Systems Integration expertise to replace the existing sludge auto-loading system with a modern equivalent using Schneider Electric Canada Inc. PLCs.
- E1.3 As the NEWPCC is anticipated to undergo major upgrades over the next five years, it is anticipated that any system installed under this contract complies with City standards so that the replaced sludge auto-loading system can be easily integrated into the future redeveloped NEWPCC at a later date.
- E1.4 The City has standardized upon a specific Motor Control Centre (MCC) and Programmable Logic Controller (PLC) based automation control system, under Bid Opportunity 756-2013. The Bid Opportunity was awarded on the 7th of November 2014 to Schneider Electric Canada Inc, based upon their proposed product offering; which shall be used as the principle automation equipment and software vendor for the Systems Integration Work.

E2. EXISTING NEWPCC SLUDGE AUTO-LOADING CONTROL SYSTEM

- E2.1 The current sludge auto-loading system at the NEWPCC is automated by a Datem brand DCM series PLC and QNX2 Real-Time OS computer based control system outside of the control of the existing site ABB DCS.
- E2.2 Refer to Appendix A for wiring diagrams representing the existing sludge auto-loading control system.
- E2.3 Refer to Appendix B for Process and Instrumentation Diagrams (P&IDs) representing the existing sludge auto-loading control system.
- E2.4 Refer to Appendix C for document W700-Sludge Cake Storage, Weighing and Loadout System, the existing Functional Design Requirement representing the existing sludge auto-loading control system (system to be replaced).
- E2.5 Refer to Appendix D for document W600-Sludge Cake Pumping System, the existing Functional Design Requirement representing the proceeding process (system not to be replaced), that feeds the sludge auto-loading system.
- E2.6 Refer to Appendix E for the simplified pictorial view of the QNX network representing the existing sludge auto-loading control system.
- E2.7 Refer to Appendix F for the Boisolids2014 throughput figures of the existing sludge auto-loading system.

E3. REDEVELOPED NEWPCC SLUDGE AUTO-LOADING CONTROL SYSTEM

- E3.1 Refer to Appendix G for the Functional Design Requirement of the new sludge auto-loading control system to be installed.

E4. ABBREVIATIONS

ABB	ASEA Brown Boveri
ANSI	American National Standards Institute
APEGM	Association of Professional Engineers and Geoscientists of Manitoba
CEA	Canadian Electricity Association
CEC	Canadian Electrical Code
CSIA	Control Systems Integration Association
DCS	Distributed Control System
IEEE	Institute of Electrical and Electronics Engineers
MCC	Motor Control Centre
NEC	National Electrical Code
NFPA	National Fire Protection Association
NEWPCC	North End Water Pollution Control Centre (Alternatively called the North End Sewage Treatment Plant)
OSHA	Occupational Safety and Health Association
PLC	Programmable Logic Controller
PPE	Personal Protective Equipment

E5. STANDARDS

- E5.1 The Contractor shall ensure that all Work meets the requirements of the latest following industry standards where applicable of;
- (a) CSA Z462 – Workplace Electrical Safety;
 - (b) CEC – Canadian Electrical Code, and;
 - (c) OSHA – Occupational Safety and Health Administration.
- E5.2 The Contractor shall ensure that all Work meets the requirements of the latest following City standards and guides of (latest copies of these standards and guides can be found in Appendix H or provided upon request to the Contract Administrator);
- (a) Water & Waste Department Electrical Design Guide;
 - (b) Water & Waste Department Automation Design Guide;
 - (c) Water & Waste Department Historical Data Retention Standard;
 - (d) Water & Waste Department Identification Standard;
 - (e) Water & Waste Department Tagname Identification Standard, and;
 - (f) Water & Waste Department HMI Layout and Animation Plan.

E6. GENERAL

- E6.1 The Contractor shall at minimum, investigate, design, schedule and plan transition work, install, program, test, commission and document a new sludge auto-loading control system to replace the existing sludge auto-loading system.
- E6.2 The Contractor shall ensure that the new sludge auto-loading control system meets the requirements of the Functional Design Requirement document found in Appendix G.
- E6.3 Further to E6.2, should a contradiction between the requirements of E6.2 and E5.2 occur, the Contractor shall highlight the contradiction to the Contract Administrator. The Contract Administrator shall identify the correct course of action to be taken by the Contractor.

- E6.4 The Contractors scope of Work only relates to the control system, the existing and future control panel and any external HMIs required by the system. Field devices providing the input signals, output implementation and process variables to be measured such as actuators, solenoids, push buttons, hoppers, weigh cells, level instruments etc. are the responsibility of City forces. Should an input or output device which is found to be defective and presents an obstacle to the successful running of the new sludge auto-loading control system, the Contractor must notify the Contract Administrator immediately so that City forces can be allocated to correct the field device.
- E6.5 The new sludge auto-loading system shall be a PLC based system using hardware and software of the manufacturer Schneider Electric Canada Inc under the City award of RFP 756-2013.
- E6.6 For the PLC component of the sludge auto-loading control system, the Contractor has the choice of using either the Schneider Quantum, Schneider M580, or Schneider M340 models.
- E6.7 For the software component of the sludge auto-loading control system, the Contractor should use the Schneider Vejio Citect family of products.
- E6.8 The Contractor should attempt to minimize the requirement of modifications or additions to field based devices where possible in his design and should seek to reuse existing wiring and panels where available.
- E6.9 The Contractor shall be responsible for producing the detailed shop drawings and any other drawings pertaining to the automation and control system installed by the Contractor as required by the City.
- E6.10 The Contractor shall update all existing effected drawings, P&IDs and literature effected by the Work. It is expected that where existing drawings, P&IDs and literature exists, that the existing document number remains unchanged and the revision number is updated.
- E6.11 The Contractor shall be responsible for authentication (sealing) of all programming and other automation designs implemented by the Contractor by a Professional Engineer registered with the Association of Professional Engineers and Geoscientists of the Province of Manitoba (APEGM).

E7. DESIGN

- E7.1 The Contractor shall create a project plan to complete the Work and submit the project plan to the City within 30 days of award of the Contract.
- E7.2 Upon approval by the City of the project plan, the Contractor shall produce a preliminary design of the new sludge auto-loading control system for submittal and comment by the City.
- E7.3 Upon comment by the City of the preliminary design, the Contractor shall produce a detailed design of the new sludge auto-loading control system.
- E7.4 The Contractor shall allow minimum of three (3) weeks in his schedule for any City reviews, comments or approvals as applicable that are required. Actual review periods may be substantially shorter and is dependent upon the size and complexity of the submittal being reviewed.

E8. INSTALLATION

- E8.1 The Contractor shall be responsible for the installation of the new sludge auto-loading control system. The Contractor may have assistance by City forces as per D4.3.

- E8.2 The installation method should provide the least amount of impact on the existing process and should be phased in its installation in such a way that the existing process can remain continually operational throughout the replacement.
- E8.3 The current sludge auto-loading control system is arranged into two partially independent process trains within the same control system, namely East and West. While the existing PLC system is tightly integrated and removal of one affects the other, it is suggested that the Contractor consider replacing and commission one (1) side of the control system before replacing and commissioning the second side so as to mitigate risk to the operation.
- E8.4 The Contractor shall use the existing sludge auto-loading control panel to house the new PLC and ancillary components required for its function such as power supplies, network adapters, terminal rails etc.

E9. PROGRAMMING

- E9.1 The Contractor shall structure and programme the new sludge auto-loading system in line with the requirements set in E5.2.
- E9.2 In addition to requirements of E9.1, the Contractor shall program the new PLC so as to properly expose the registries for use by the existing site ABB DCS.
- E9.3 The Contractor will not be required to perform the re-program of the existing ABB DCS as this is a separate independent control system to the sludge auto-loading control system. However, the Contractor will be required to support the City forces that will make the necessary changes to the ABB DCS to accept data from and provide basic commands to the new sludge auto-loading control system. Further information on the bridging requirements can be found in Appendix G – Functional Design Requirement, section 6.4.
- E9.4 Further to E9.3, it is the responsibility of the Contractor to provide a minimum of two (2) weeks notice to the Contract Administrator of when City forces will be required to make necessary changes to the ABB DCS to ensure correct coordination and scheduling of City teams.

E10. TESTING AND COMMISSIONING

- E10.1 The contractor shall develop a testing and commissioning plan of the new sludge auto-loading system to the satisfaction of the Contract Administrator.
- E10.2 The Contractor shall undertake a comprehensive Factory Acceptance Test of the new sludge auto-loading control system at a location within Winnipeg prior to the installation at the NEWPCC which will be witnessed by the City Contract Administrator and his designates and to the satisfaction of the City. The test should look to simulate the system with real-time external inputs and outputs of the developed control system under both normal and abnormal operating conditions.
- E10.3 Further to E10.2, the Contractor (s) shall use the Schneider Electric Canada Inc. Mynah MiMiC process simulator during off-line process simulation or process automation demonstrations. Where the feasibility of the Mynah MiMiC simulator is not practical for the simulation in question, the Contractor (s) will use an approved equal that has been agreed on a case-by-case basis by the Contract Administrator.
- E10.4 The Contractor should propose to the Contract Administrator the most advantageous location and date within Winnipeg to perform the Factory Acceptance Test a minimum of two (2) weeks prior to the testing.

E10.5 The Contractor shall be responsible for all and any commissioning requirements at the NEWPCC of the new sludge auto-loading control system to ensure a fully autonomous, safe and reliable system to the satisfaction of the City.

E11. OPERATION AND MAINTENANCE MANUALS

E11.1 The Contractor shall produce detailed Operation and Maintenance (O&M) manuals covering the operation and maintenance relevant to the new sludge auto-loading control system. All final O&M manuals shall be to the satisfaction and acceptance of the Contract Administrator.

E11.2 The O&M manuals shall consist of four (4) duplicate sets of physically bound hard copies and four (4) duplicate sets of fully searchable copies on CD or DVD in PDF and where available in Native format.

E11.3 The O&M manuals shall also include a comprehensive and up to date process control narrative of the system installed in both PDF and Microsoft Word formats.

E11.4 The developed programs for the new sludge auto-loading control system shall be provided on their own separate CDs or DVDs independent to the O&M manuals with accompanying program annotation.

E11.5 The drafts of the O&Ms should be submitted to the City for review prior too or during the commissioning period. Final versions of the O&Ms should be submitted within sixty (60) days of successful commissioning of the system.

E11.6 The City is currently developing a City standard guidance document on how O&M manuals should be structured for content and standard section dividers and identifiers. At the time the Contractor is in a position to begin creation of the O&M manuals, the City will provide these standard guidance documents as available upon request to the Contract Administrator. The expectation of the City is that the Contactor will align the structure of the O&Ms in line with these City standard guidance documents where available and meeting the requirements of E11.

E12. CITY STAFF TRAINING

E12.1 The Contractor shall allow for four (4) lots of two (2) hour training sessions for site operations staff and two (2) lots of three (3) hour training sessions for maintenance staff. The training should be performed over a number of different days to ensure maximum coverage of operations and maintenance staff that work on a day and night shift rotation.

E12.2 Further to E12.1, training for City maintenance staff should primarily be based around electrical and instrumentation staff skill sets. The training should be sufficiently detailed to allow City electrical and instrumentation maintenance staff to be able to replace PLC's components within the system, uploading and downloading back-up versions of the runtime program and forcing I/O states within the software to aid in maintenance fault finding, as well as any other pertinent areas of the system not normally found within similar control systems at the NEWPCC.

E12.3 Further to E12.1, training for City operation staff should primarily be based around operation of the system, navigation of the HMI system, trend reporting, alarm management, retrieval of historical data, adjustable operating parameters, associated interlocks and inhibits with external systems.

E12.4 Training shall be site based at the NEWPCC and should be hands on training with the actual system installed.

E12.5 Training sessions shall be video recorded and saved to DVD in triplicate and provided to the Contract Administrator at the completion of the training. The video recorded sessions are aimed

at training additional City staff at later dates and as such should be sufficiently detailed and possess good picture and sound quality.

E13. GENERAL REQUIREMENTS

- E13.1 The Contractor shall coordinate with the City to acquire details required to complete the Work.
- E13.2 The Contractor shall arrange through the City to travel to site to acquire the necessary data and verification of existing drawings and documentation required to complete the Work.
- E13.3 All Schneider Electric hardware and software to be installed for this Contract shall be supplied by the City to the Contractor. It is the responsibility of the Contractor to identify all and any hardware and software required by the design to be procured by the City. The Contractor shall allow in his schedule the delivery timescales of Schneider Electric Canada Inc and include an additional thirty (30) days by the City to process the order and delivery of hardware and software required.
- E13.4 Upon substantial completion, the Contractor shall turn over within sixty (60) days to the Contract Administrator all and any removed redundant components from the existing system, as well as any hardware and software inclusive of automation licences that were provided to the Contractor by the City.
- E13.5 Process shutdown of the complete existing sludge auto-loading system can be for a continuous maximum of twenty four (24) hours. The Contractor shall provide the City NEWPCC operations staff with seventy two (72) hours prior notice when requesting any shutdown of the sludge auto-loading system. Depending upon the length of any shutdown window used, the NEWPCC operation will require sufficient time upon re-commencing the sludge auto-loading system to dispose of accumulated sludge and re-build storage reserve capacity for any additional shutdown requests, the re-build of storage reserve capacity may take up to one (1) week dependent upon the original shutdown duration.
- E13.6 Should any complete shutdown of the sludge auto-loading system exceed a continuous twenty four (24) hours period as a result of the Contractors Work, the result of the prolonged shutdown will begin to impact the wider NEWPCC treatment process performance. Should the process performance be adversely impacted by a sustained shutdown due to the Contractor of the sludge auto-loading system beyond the twenty four (24) hours, the Contractor shall be liable for all and any costs incurred by the City to mitigate the loss of the sludge auto-loading system as set out in D15.
- E13.7 The Contractor shall conduct the Work under the supervision and approval of an APEGM registered professional engineer with a minimum of five (5) years' experience in similar systems.
- E13.8 The City may require the Contractor to be available to assist the City's maintenance staff on-site inside and outside of normal business hours within the first twelve (12) months of operation of the system. The Contractor shall indicate in his Bid how this would be achieved.
- E13.9 The Contractor shall make and install appropriate labelling on the new system as per the requirements of E5.2.

Appendix List

Appendix A - Wiring diagrams representing the existing sludge auto-loading control system.

Appendix B - Process and Instrumentation diagrams (P&IDs) representing the existing sludge auto-loading control system.

Appendix C - W700-Sludge Cake Storage, Weighing and Loadout System.

Appendix D - W600-Sludge Cake Pumping System.

Appendix E - Pictorial view of the QNX network representing the existing sludge auto-loading control system.

Appendix F - Boisolid2014 throughput figures of the existing sludge auto-loading system.

Appendix G - Functional Design Requirement of the new sludge auto-loading control system

Appendix H - Water and Waste Department E&I Standards