



THE CITY OF WINNIPEG

BID OPPORTUNITY

BID OPPORTUNITY NO. 677-2016

**WEST END SEWAGE TREATMENT PLANT – CONSTRUCTION OF EFFLUENT
MONITORING STATION**

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PART B - BIDDING PROCEDURES

B1. CONTRACT TITLE

B1.1 WEST END SEWAGE TREATMENT PLANT – CONSTRUCTION OF EFFLUENT MONITORING STATION

B2. SUBMISSION DEADLINE

B2.1 The Submission Deadline is 12:00 noon Winnipeg time, September 27, 2016.

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 Further to C3.1, the Contract Administrator or an authorized representative will be available at the Site on September 14, 2016 to provide Bidders access to the Site.

B3.2 The Bidder are advised to meet at the reception area of WEWPC located at 7740 Wilkes Avenue at 10:00 am.

B3.3 All persons in attendance are required to provide their own Personal Protective Equipment; at a minimum hard hat, safety footwear, and safety glasses.

B3.4 The Bidder shall not be entitled to rely on any information or interpretation received at the Site investigation unless that information or interpretation is the Bidder's direct observation, or is provided by the Contract Administrator in writing.

B4. ENQUIRIES

B4.1 All enquiries shall be directed to the Contract Administrator identified in D4.1.

B4.2 If the Bidder finds errors, discrepancies or omissions in the Bid Opportunity, or is unsure of the meaning or intent of any provision therein, the Bidder shall notify the Contract Administrator of the error, discrepancy or omission, or request a clarification as to the meaning or intent of the provision at least five (5) Business Days prior to the Submission Deadline.

B4.3 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 Bidders by issuing an addendum.

B4.4 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 Bidder who made the enquiry.

B4.5 The Bidder 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 Bidder by the City or acquired by a Bidder 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 Bidder before receipt hereof; or

- (b) becomes publicly known other than through the Bidder; or
- (c) is disclosed pursuant to the requirements of a governmental authority or judicial order.

B5.2 The Bidder 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.

B5.3 Notwithstanding B5.1, all quotations, invoices and other pricing related information associated with the Standardized Goods and acquired by a Bidder or its Subcontractors through enquiries, investigation or any other means is confidential. Such information shall not be used or disclosed in any way, other than meeting the requirements of this Bid Opportunity.

B6. ADDENDA

B6.1 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.

B6.2 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.

B6.2.1 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>

B6.2.2 The Bidder is responsible for ensuring that he/she 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.

B6.3 The Bidder shall acknowledge receipt of each addendum in Paragraph 10 of Form A: Bid. Failure to acknowledge receipt of an addendum may render a Bid non-responsive.

B7. SUBSTITUTES

B7.1 The Work is based on the Plant, Materials and methods specified in the Bid Opportunity.

B7.2 Substitutes to the City's Standardized Goods, as identified in E24, will not be accepted.

B7.3 Substitutions for non-Standardized Goods (not identified in E24) shall not be allowed unless application has been made to and prior approval has been granted by the Contract Administrator in writing.

B7.4 Requests for approval of a substitute will not be considered unless received in writing by the Contract Administrator at least five (5) Business Days prior to the Submission Deadline.

B7.5 The Bidder 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.

B7.6 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.

B7.7 The Contract Administrator will provide a response in writing, at least two (2) Business Days prior to the Submission Deadline, to the Bidder who requested approval of the substitute.

B7.7.1 The Contract Administrator will issue an Addendum, disclosing the approved materials, equipment, methods and products to all potential Bidders. The Bidder 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.

B7.8 If the Contract Administrator approves a substitute as an “approved equal”, any Bidder may use the approved equal in place of the specified item.

B7.9 If the Contract Administrator approves a substitute as an “approved alternative”, any Bidder 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 B17.

B7.10 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.

B8. BID COMPONENTS

B8.1 The Bid shall consist of the following components:

- (a) Form A: Bid;
- (b) Form B: Prices;
- (c) Bid Security
 - (i) Form G1: Bid Bond and Agreement to Bond, or
Form G2: Irrevocable Standby Letter of Credit and Undertaking, or
a certified cheque or draft;

B8.2 Further to B8.1, the Bidder should include the written correspondence from the Contract Administrator approving a substitute in accordance with B7.

B8.3 All components of the Bid shall be fully completed or provided, and submitted by the Bidder no later than the Submission Deadline, with all required entries made clearly and completely, to constitute a responsive Bid.

B8.4 The Bid shall be submitted enclosed and sealed in an envelope clearly marked with the Bid Opportunity number and the Bidder's name and address.

B8.4.1 Samples or other components of the Bid which cannot reasonably be enclosed in the envelope may be packaged separately, but shall be clearly marked with the Bid Opportunity number, the Bidder's name and address, and an indication that the contents are part of the Bidder's Bid.

B8.5 Bidders are advised not to include any information/literature except as requested in accordance with B8.1.

B8.6 Bidders are advised that inclusion of terms and conditions inconsistent with the Bid Opportunity document, including the General Conditions, will be evaluated in accordance with B17.1(a).

B8.7 Bids submitted by facsimile transmission (fax) or internet electronic mail (e-mail) will not be accepted.

B8.8 Bids shall be submitted to:

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

B9. BID

B9.1 The Bidder shall complete Form A: Bid, making all required entries.

B9.2 Paragraph 2 of Form A: Bid shall be completed in accordance with the following requirements:

- (a) if the Bidder is a sole proprietor carrying on business in his/her own name, his/her name shall be inserted;
- (b) if the Bidder is a partnership, the full name of the partnership shall be inserted;
- (c) if the Bidder is a corporation, the full name of the corporation shall be inserted;
- (d) if the Bidder 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.

B9.2.1 If a Bid is submitted jointly by two or more persons, each and all such persons shall identify themselves in accordance with B9.2.

B9.3 In Paragraph 3 of Form A: Bid, the Bidder shall identify a contact person who is authorized to represent the Bidder for purposes of the Bid.

B9.4 Paragraph 12 of Form A: Bid shall be signed in accordance with the following requirements:

- (a) if the Bidder is a sole proprietor carrying on business in his/her own name, it shall be signed by the Bidder;
- (b) if the Bidder is a partnership, it shall be signed by the partner or partners who have authority to sign for the partnership;
- (c) if the Bidder 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 Bidder is carrying on business under a name other than his/her 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.

B9.4.1 The name and official capacity of all individuals signing Form A: Bid should be printed below such signatures.

B9.5 If a Bid is submitted jointly by two or more persons, the word "Bidder" shall mean each and all such persons, and the undertakings, covenants and obligations of such joint Bidders in the Bid and the Contract, when awarded, shall be both joint and several.

B10. PRICES

B10.1 The Bidder shall state a price in Canadian funds for each item of the Work identified on Form B: Prices.

B10.1.1 Notwithstanding C12.2.3(c), prices on Form B: Prices shall not include the Manitoba Retail Sales Tax (MRST, also known as PST), which shall be extra where applicable.

- B10.2 The quantities listed on Form B: Prices are to be considered approximate only. The City will use said quantities for the purpose of comparing Bids.
- B10.3 The quantities for which payment will be made to the Contractor are to be determined by the Work actually performed and completed by the Contractor, to be measured as specified in the applicable Specifications.
- B10.4 Form B, Item B10: The Bidder shall enter the cost of the Standardized Goods to be supplied from Schneider Electric Canada Ltd. (Schneider) as part of the Standardized Control System and Motor Control Equipment agreement identified in E25. The cost shall be the base cost received from Schneider, without any mark-up or taxes applied.
- B10.4.1 Any mark-up to the supply of the Standardized Goods shall be deemed to be included in other applicable Form B lines.
- B10.5 Form B, Item B11: The Bidder shall enter the cost of the Standardized Goods to be supplied from Trans-West Supply Company Inc. (Trans-West) as part of the Standardized Instrumentation agreement identified in E26. The cost shall be the base cost received from Trans-West, without any mark-up or taxes applied.
- B10.5.1 Any mark-up to the supply of the Standardized Goods shall be deemed to be included in other applicable Form B lines.
- B10.6 An allowance for additional material has been included on Form B, Item B12, that may be required due to unforeseen work.
- B10.7 The Bidder shall state a labour rate for Form B, Item B13, for additional unforeseen labour. The rate shall be inclusive of:
- (a) Concrete or steel work, Mechanical plumbing or HVAC work, Electrical or Automation Work associated with the Effluent Monitoring Station.
 - (b) Any potential overtime or night-time work that may be required.
- B10.8 The maximum permissible labour rates for unforeseen work are shown on Form B.
- B10.8.1 In the event that the labour rate indicated on Form B, is greater than the specified maximum rate, the maximum rate will be utilized for the purpose of bid evaluation and payment.
- B10.9 The labour rates and additional material item specified shall apply to all additional work, including additional work covered under Contract Change Orders.
- B10.10 Escalation shall not apply to the labour rates.
- B10.11 Payments to Non-Resident Contractors are subject to Non-Resident Withholding Tax pursuant to the Income Tax Act (Canada).

B11. DISCLOSURE

- B11.1 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 because of this full disclosure. Where applicable, additional material available as a result of contact with these Persons is listed below.
- B11.2 The Persons are:
- (a) N/A

B12. QUALIFICATION

- B12.1 The Bidder 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; and
- (b) be financially capable of carrying out the terms of the Contract; and
- (c) have all the necessary experience, capital, organization, and equipment to perform the Work in strict accordance with the terms and provisions of the Contract.

B12.2 The Bidder and any proposed Subcontractor (for the portion of the Work 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>

B12.3 The Bidder and/or any proposed Subcontractor (for the portion of the Work proposed to be subcontracted to them) shall:

- (a) have successfully carried out work similar in nature, scope and value to the Work; and
- (b) be fully capable of performing the Work required to be in strict accordance with the terms and provisions of the Contract; and
- (c) have a written workplace safety and health program if required pursuant to The Workplace Safety and Health Act (Manitoba);

B12.4 Further to B12.3(c), the Bidder shall, within five (5) Business Days of a request by the Contract Administrator, provide proof satisfactory to the Contract Administrator that the Bidder/Subcontractor has a workplace safety and health program meeting the requirements of The Workplace Safety and Health Act (Manitoba), by providing:

- (a) a copy of their valid Manitoba COR certificate and Letter of Good Standing (or Manitoba equivalency) as issued under the Certificate of Recognition (COR) Program administered by the Construction Safety Association of Manitoba or by the Manitoba Heavy Construction Association's WORKSAFELY™ COR™ Program; or
- (b) a copy of their valid Manitoba SECOR™ certificate and Letter of Good Standing (or Manitoba equivalency) as issued under the Small Employer Certificate of Recognition Program (SECOR™) administered by the Construction Safety Association of Manitoba or by the Manitoba Heavy Construction Association's WORKSAFELY™ COR™ Program; or
- (c) a report or letter to that effect from an independent reviewer acceptable to the City. (A list of acceptable reviewers and the review template are available on the Information Connection page at The City of Winnipeg, Corporate Finance, Materials Management Division website at <http://www.winnipeg.ca/matmgt/>.)

B12.5 The Bidder shall submit, within three (3) Business Days of a request by the Contract Administrator, proof satisfactory to the Contract Administrator of the qualifications of the Bidder and of any proposed Subcontractor.

B12.6 The Bidder shall provide, on the request of the Contract Administrator, full access to any of the Bidder's equipment and facilities to confirm, to the Contract Administrator's satisfaction, that the Bidder's equipment and facilities are adequate to perform the Work.

B13. BID SECURITY

B13.1 The Bidder shall provide bid security in the form of:

- (a) a bid bond, in the amount of at least ten percent (10%) of the Total Bid Price, and agreement to bond of a company registered to conduct the business of a surety in Manitoba, in the form included in the Bid Submission (Form G1: Bid Bond and Agreement to Bond); or

- (b) an irrevocable standby letter of credit, in the amount of at least ten percent (10%) of the Total Bid Price, and undertaking 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 included in the Bid Submission (Form G2: Irrevocable Standby Letter of Credit and Undertaking); or
 - (c) a certified cheque or draft payable to "The City of Winnipeg", in the amount of at least fifty percent (50%) of the Total Bid Price, drawn on a bank or other financial institution registered to conduct business in Manitoba.
- B13.1.1 If the Bidder submits alternative bids, the bid security shall be in the amount of the specified percentage of the highest Total Bid Price submitted.
- B13.1.2 All signatures on bid securities shall be original.
- B13.1.3 The Bidder shall sign the Bid Bond.
- B13.1.4 The Surety shall sign and affix its corporate seal on the Bid Bond and the Agreement to Bond.
- B13.2 The bid security of the successful Bidder and the next two lowest evaluated responsive and responsible Bidders will be released by the City when a Contract for the Work has been duly executed by the successful Bidder and the performance security furnished as provided herein. The bid securities of all other Bidders will be released when a Contract is awarded.
- B13.2.1 Where the bid security provided by the successful Bidder is in the form of a certified cheque or draft pursuant to B13.1(c), it will be deposited and retained by the City as the performance security and no further submission is required.
- B13.2.2 The City will not pay any interest on certified cheques or drafts furnished as bid security or subsequently retained as performance security.
- B13.3 The bid securities of all Bidders will be released by the City as soon as practicable following notification by the Contract Administrator to the Bidders that no award of Contract will be made pursuant to the Bid Opportunity.
- B14. OPENING OF BIDS AND RELEASE OF INFORMATION**
- B14.1 Bids will be opened publicly, after the Submission Deadline has elapsed, in the office of the Corporate Finance Department, Materials Management Division, or in such other office as may be designated by the Manager of Materials.
 - B14.1.1 Bidders or their representatives may attend.
 - B14.1.2 Bids determined by the Manager of Materials, or his/her designate, to not include the bid security specified in B13 will not be read out.
- B14.2 Following the Submission Deadline, the names of the Bidders and their Total Bid Prices (unevaluated, and pending review and verification of conformance with requirements) 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/>
- B14.3 After award of Contract, the name(s) of the successful Bidder(s) and the Contract amount(s) 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/>
- B14.4 The Bidder 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.

B15. IRREVOCABLE BID

- B15.1 The Bid(s) submitted by the Bidder shall be irrevocable for the time period specified in Paragraph 11 of Form A: Bid.
- B15.2 The acceptance by the City of any Bid shall not release the Bids of the next two lowest evaluated responsive Bidders and these Bidders shall be bound by their Bids on such Work until a Contract for the Work has been duly executed and the performance security furnished as herein provided, but any Bid shall be deemed to have lapsed unless accepted within the time period specified in Paragraph 11 of Form A: Bid.

B16. WITHDRAWAL OF BIDS

- B16.1 A Bidder may withdraw his/her Bid without penalty by giving written notice to the Manager of Materials at any time prior to the Submission Deadline.
- B16.1.1 Notwithstanding C23.3, the time and date of receipt of any notice withdrawing a Bid shall be the time and date of receipt as determined by the Manager of Materials.
- B16.1.2 The City will assume that any one of the contact persons named in Paragraph 3 of Form A: Bid or the Bidder's authorized representatives named in Paragraph 12 of Form A: Bid, and only such person, has authority to give notice of withdrawal.
- B16.1.3 If a Bidder gives notice of withdrawal prior to the Submission Deadline, the Manager of Materials will:
- (a) retain the Bid until after the Submission Deadline has elapsed;
 - (b) open the Bid to identify the contact person named in Paragraph 3 of Form A: Bid and the Bidder's authorized representatives named in Paragraph 12 of Form A: Bid; and
 - (c) if the notice has been given by any one of the persons specified in B16.1.3(b), declare the Bid withdrawn.
- B16.2 A Bidder who withdraws his/her Bid after the Submission Deadline but before his/her Bid has been released or has lapsed as provided for in B15.2 shall be liable for such damages as are imposed upon the Bidder 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, including the right to retain the Bidder's bid security.

B17. EVALUATION OF BIDS

- B17.1 Award of the Contract shall be based on the following bid evaluation criteria:
- (a) compliance by the Bidder with the requirements of the Bid Opportunity, or acceptable deviation there from (pass/fail);
 - (b) qualifications of the Bidder and the Subcontractors, if any, pursuant to B12 (pass/fail);
 - (c) Total Bid Price;
 - (d) economic analysis of any approved alternative pursuant to B7.
- B17.2 Further to B17.1(a), the Award Authority may reject a Bid as being non-responsive if the Bid is incomplete, obscure or conditional, or contains additions, deletions, alterations or other irregularities. The Award Authority may reject all or any part of any Bid, or waive technical requirements or minor informalities or irregularities, if the interests of the City so require.
- B17.3 Further to B17.1(b), the Award Authority shall reject any Bid submitted by a Bidder who does not demonstrate, in his/her Bid or in other information required to be submitted, that he/she is responsible and qualified.
- B17.4 Further to B17.1(c), the Total Bid Price shall be the sum of the quantities multiplied by the unit prices for each item shown on Form B: Prices.

- B17.4.1 Further to B17.1(a), in the event that a unit price is not provided on Form B: Prices, the City will determine the unit price by dividing the Amount (extended price) by the approximate quantity, for the purposes of evaluation and payment.
- B17.4.2 Further to B17.1(a), the Award Authority may reject a Bid as being non-responsive if the subtotal for Stage 1 exceeds the budget as shown for Stage 1 on Form B: Prices.

B18. AWARD OF CONTRACT

- B18.1 The City will give notice of the award of the Contract or will give notice that no award will be made.
- B18.2 The City will have no obligation to award a Contract to a Bidder, even though one or all of the Bidders are determined to be responsible and qualified, and the Bids are determined to be responsive.
- B18.2.1 Without limiting the generality of B18.2, the City will have no obligation to award a Contract where:
- (a) the prices exceed the available City funds for the Work;
 - (b) the prices are materially in excess of the prices received for similar work in the past;
 - (c) the prices are materially in excess of the City's cost to perform the Work, 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.
- B18.3 Where an award of Contract is made by the City, the award shall be made to the responsible and qualified Bidder submitting the lowest evaluated responsive Bid, in accordance with B17.
- B18.3.1 Following the award of contract, a Bidder will be provided with information related to the evaluation of his/her Bid upon written request to the Contract Administrator.
- B18.4 The City may, at its discretion, award the Contract in Stages.
- B18.5 The City intends to award the entire Scope of Work; however,
- (a) Stage 1 will be awarded initially;
 - (b) Stage 2 shall only proceed at the City's sole discretion.
- B18.6 As noted in D2 and identified in Form B: Prices, the Award of Stage 2 will be contingent upon approval of sufficient funding. If the budget approved by the City does not include sufficient funding for the Work, the City shall have the right to not award all or any portion of Stage 2 Work, in accordance with D2.
- B18.7 The Contractor shall not proceed with any Work related to Stage 2 without written authorization from the City.

PART C - GENERAL CONDITIONS

C0. GENERAL CONDITIONS

- C0.1 The *General Conditions for Construction* (Revision 2006 12 15) are applicable to the Work of the Contract.
- C0.1.1 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 A reference in the Bid Opportunity to a section, clause or subclause with the prefix “**C**” designates a section, clause or subclause in the *General Conditions for Construction*.

PART D - SUPPLEMENTAL CONDITIONS

GENERAL

D1. GENERAL CONDITIONS

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

D2. SCOPE OF WORK

D2.1 The Work to be done under the Contract shall consist of a new Effluent Monitoring Station on top of the plant effluent outfall at the City of Winnipeg's WEWPCC.

D2.2 The major components of the Work are as follows:

(a) Stage 1

- (i) Excavate down to the existing plant effluent line and construct a concrete chamber with a dry well and wet well in-line with the effluent line.
- (ii) Provide full effluent bypass pumping while the monitoring station is being built.

(b) Stage 2

- (i) Build the superstructure on top of this concrete wet/dry well underground chamber.
- (ii) Provide one new effluent line slide gate in the existing Gate Chamber, and one new slide gate in the new Effluent Monitoring Station wet well.
- (iii) Provide electrical and control systems as specified.
- (iv) Provide a magmeter in the plant effluent line.
- (v) Provide an effluent sampling circulation system, sampler refrigerator and related accessories.
- (vi) Remove above ground power poles from the main plant to existing Gate Chamber building.
- (vii) Provide new underground power supply and fiber optic cable from main plant to the new Effluent Monitoring Station.
- (viii) Site grading.

D2.3 Each Stage of the Work will be awarded separately in accordance with B18.

D2.4 The City currently does not have sufficient approved funding in the Capital Budget for Stage 2 of the Work, but is anticipating receiving notification about funding by late October 2016.

D2.4.1 If all or any portion of Stage 2 is not awarded, the time periods stipulated in D16 for Substantial Performance of the Work and in D18 for Total Performance of the Work will be reduced proportionally by the Contract Administrator, acting reasonably.

D3. DEFINITIONS

D3.1 When used in this Bid Opportunity:

- (a) "**WEWPCC**" means West End Sewage Treatment Plant;
- (b) "**Effluent Monitoring Station**" means the new monitoring station being constructed west of the existing Gate Chamber;
- (c) "**Gate Chamber**" means the existing structure that controls the effluent flows on the Polishing Ponds; and directs the effluent to the outfall leaving the WEWPCC to the Assiniboine River. The structure is located on the west side of the polishing ponds between ponds 4 and 5. The water level is controlled by stop log weirs as shown on the construction drawings and the reference drawings in the Appendix D. An existing

monitoring station exists on the east side of this structure that is currently being used to sample the effluent as it enters to the outfall ;

- (d) " **Standardized Goods**" means the respective goods identified in D25 that have been standardized by the City.
- (e) "**Standardization Vendor**" means a contractor or supplier of Standardized Goods, as identified in D25.

D4. CONTRACT ADMINISTRATOR

D4.1 The Contract Administrator is KGS Group, represented by:

Ray Offman, P.Eng.
Infrastructure Engineer/Project Manager

Telephone No. 204 896-1209
Email Address roffman@ksgsgroup.com

D4.2 At the pre-construction meeting, Ray Offman will identify additional personnel representing the Contract Administrator and their respective roles and responsibilities for the Work.

D5. CONTRACTOR'S SUPERVISOR

D5.1 At the pre-construction meeting, the Contractor shall identify his/her designated supervisor and any additional personnel representing the Contractor and their respective roles and responsibilities for the Work.

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.

D7. NOTICES

D7.1 Except as provided for in C23.2.2, all notices, requests, nominations, proposals, consents, approvals, statements, authorizations, documents or other communications to the Contractor shall be sent to the address or facsimile number identified by the Contractor in Paragraph 2 of Form A: Bid.

D7.2 All notices, requests, nominations, proposals, consents, approvals, statements, authorizations, documents or other communications to the City, except as expressly otherwise required in D7.3, D7.4 or elsewhere in the Contract, shall be sent to the attention of the Contract Administrator at the facsimile number identified in D4.1.

D7.3 Notwithstanding C21, all notices of appeal to the Chief Administrative Officer shall be sent to the attention of the Chief Financial Officer at the following facsimile number:

The City of Winnipeg
Chief Financial Officer

Facsimile No.: 204 949-1174

D7.4 All notices, requests, nominations, proposals, consents, approvals, statements, authorizations, documents or other communications required to be submitted or returned to the City Solicitor shall be sent to the following facsimile number:

The City of Winnipeg
Legal Services Department
Attn: Director of Legal Services

Facsimile No.: 204 947-9155

D7.5 Bids Submissions must not be submitted to the above facsimile numbers. Bids must be submitted in accordance with B8.

D8. FURNISHING OF DOCUMENTS

D8.1 Upon award of the Contract, the Contractor will be provided with five (5) complete sets of the Bid Opportunity. If the Contractor requires additional sets of the Bid Opportunity, they will be supplied to him/her at cost.

SUBMISSIONS

D9. AUTHORITY TO CARRY ON BUSINESS

D9.1 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.

D10. SAFE WORK PLAN

D10.1 The Contractor shall provide the Contract Administrator with a Safe Work Plan at least five (5) Business Days prior to the commencement of any Work on the Site but in no event later than the date specified in C4.1 for the return of the executed Contract.

D10.2 The Safe Work Plan should be prepared and submitted in the format shown in the City's template which is available on the Information Connection page at The City of Winnipeg, Corporate Finance, Materials Management Division website at <http://www.winnipeg.ca/matmgt/Safety/default.stm>

D10.3 The Safe Work Plan shall identify risks to worker safety identified in the Construction Plan in Appendix C including:

- (a) The hazard presented by geese in the area and their occasional aggressive nature.
- (b) The hazard associated with the lack of potable water on the Site.

D11. INSURANCE

D11.1 The Contractor shall provide and maintain the following insurance coverage at all times during the performance of the Work:

- (a) Wrap-up liability insurance, in the amount of at least two million dollars (\$2,000,000.00) inclusive, written in the joint names of the City, the Contractor, and all sub-contractors

involved in the Project. Such liability policy to cover bodily injury, personal injury, property damage and products and completed operations consistent with industry standard policy wordings and include 24 months completed operations following the total completion date.

- (b) 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 Work. 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) All risks course of construction insurance in the amount of one hundred percent (100%) of the total Contract Price, written in the name of the Contractor and The City of Winnipeg, at all times during the performance of the Work and until the date of Substantial Performance.

D11.2 Deductibles shall be borne by the Contractor.

D11.3 The Contractor shall provide the City Solicitor with a certificate(s) of insurance, in a form satisfactory to the City Solicitor, at least two (2) Business Days prior to the commencement of any Work but in no event later than the date specified in C4.1 for the return of the executed Contract.

D11.4 The Contractor shall not cancel, materially alter, or cause each policy to lapse without providing at least thirty (30) Calendar Days prior written notice to the Contract Administrator.

D11.5 All policies must be taken out with insurers licensed to carry on business in the Province of Manitoba.

D12. PERFORMANCE SECURITY

D12.1 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.

D12.1.1 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.

D12.2 If the bid security provided in his/her Bid was not a certified cheque or draft pursuant to B13.1(c), 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 letter of intent and prior to the commencement of any Work on the Site but in no event later than the date specified in C4.1 for the return of the executed Contract.

D13. SUBCONTRACTOR LIST

D13.1 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 the date specified in the General Conditions for the return of the executed Contract.

D14. DETAILED WORK SCHEDULE

- D14.1 The Contractor shall provide the Contract Administrator with a detailed work schedule at least two (2) Business Days prior to the commencement of any Work on the Site but in no event later than the date specified in C4.1 for the return of the executed Contract.
- D14.2 The detailed work schedule shall consist of the following:
- (a) a critical path method (C.P.M.) schedule for the Work; and
 - (b) a Gantt chart for the Work based on the C.P.M. schedule;
- all acceptable to the Contract Administrator.
- D14.3 Further to D14.2(a), the C.P.M. schedule shall clearly identify the start and completion dates of all of the following activities/tasks making up the Work as well as showing those activities/tasks on the critical path. At minimum, the tasks indicated on the schedule should include, but not be limited to:
- (a) Mobilization
 - (b) Shop drawings
 - (c) Remove above ground power poles, install new underground power and fiber cables
 - (d) Electrical Switchover
 - (e) Excavation works
 - (f) Replace gate in existing Gate Chamber
 - (g) Bypass pumping
 - (h) Wet/dry well construction
 - (i) Installation of effluent piping, magmeter and gate valve
 - (j) Backfill
 - (k) Construction of superstructure
 - (l) Installation of electrical works
 - (m) Installation of sample circulation system
 - (n) Installation of heating/ventilation system
 - (o) Finish site works
 - (p) Electrical and mechanical systems testing
 - (q) Pre-commissioning
 - (r) Performance verification
 - (s) Commissioning
 - (t) Training
 - (u) Supply of operations and Maintenance Manuals
 - (v) Substantial Performance
 - (w) Completion of Deficiencies
 - (x) Total Performance
- D14.4 Further to D14.2(b), the Gantt chart shall show the time on a weekly basis, required to carry out the Work of each trade, or specification division. The time shall be on the horizontal axis, and the type of trade shall be on the vertical axis.
- D14.5 The schedule shall indicate any planned non-working days such as a holiday shutdown between Christmas and New Year's Eve.
- (a) No restricted working days exist at the WEWPCC. However the Contractor should be aware that City operations staff will not be working at the WEWPCC from December 23,

2016 to December 27, 2016. If the Contractor continues working during these dates, then the Contractor shall account for this when developing their schedule.

SCHEDULE OF WORK

D15. COMMENCEMENT

D15.1 The Contractor shall not commence any Work until he/she is in receipt of a letter of intent from the Award Authority authorizing the commencement of the Work.

D15.2 The Contractor shall not commence any Work on the Site until:

- (a) the Contract Administrator has confirmed receipt and approval of:
 - (i) evidence of authority to carry on business specified in D9;
 - (ii) evidence of the workers compensation coverage specified in C6.15;
 - (iii) the Safe Work Plan specified in D10;
 - (iv) evidence of the insurance specified in D11;
 - (v) the performance security specified in D12;
 - (vi) the Subcontractor list specified in D13; and
 - (vii) the Detailed Work Schedule specified in D14.
- (b) the Contractor has attended a pre-construction meeting with the Contract Administrator, or the Contract Administrator has waived the requirement for a pre-construction meeting.

D15.3 The Contractor shall commence the Work on the Site within seven (7) Working Days of receipt of the letter of intent.

D15.4 The City intends to award Stage 1 of this Contract by December 1, 2016 and Stage 2 of this Contract by December 30, 2016

D15.4.1 If the actual date of award is later than the intended date, the dates specified for Substantial Performance, and Total Performance will be adjusted by the difference between the aforementioned intended and actual dates.

D16. CRITICAL STAGES

D16.1 The Contractor shall achieve Critical Stages of the Work in accordance with the following requirements:

- (a) **March 1, 2017 – End of Temporary By-Pass Pumping** – The work site effluent flow bypass system has been sized to address winter flows only. In March spring melt flows can occur. Therefore the Effluent Monitoring station construction must be completed sufficiently to permit plant effluent flow to be directed permanently through the new Effluent Monitoring Station. To permit this, the station wet/dry well, and the station floor concrete works above, and all works inside the wet well must be completed as it will be difficult to work there after effluent flow is introduced. In the dry well, the new effluent piping and magmeter (or its spool piece as a minimum) must be in place. Also the new slide gate in the Gate Chamber building must be in place

D17. SUBSTANTIAL PERFORMANCE

D17.1 The Contractor shall achieve Substantial Performance by July 15, 2017.

D17.2 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.

D17.3 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.

D18. TOTAL PERFORMANCE

D18.1 The Contractor shall achieve Total Performance by September 15, 2017.

D18.2 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.

D18.3 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.

D19. LIQUIDATED DAMAGES

D19.1 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 Calendar Day for each and every Calendar Day following the days fixed herein for same during which such failure continues:

- (a) Critical Stages – one thousand dollars (\$1,000);
- (b) Substantial Performance – one thousand dollars (\$1,000); and
- (c) Total Performance – five hundred dollars (\$500).

D19.2 The amounts specified for liquidated damages in D19.1 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.

D19.3 The City may reduce any payment to the Contractor by the amount of any liquidated damages assessed.

D20. SCHEDULED MAINTENANCE

D20.1 The Contractor shall perform the following scheduled maintenance in the manner and within the time periods required by the Specifications:

- (a) Site grass watering and maintenance as specified in City of Winnipeg Specifications.

D20.2 Determination of Substantial Performance and Total Performance shall be exclusive of scheduled maintenance identified herein. All scheduled maintenance shall be completed prior to the expiration of the warranty period. Where the scheduled maintenance cannot be completed during the warranty period, the warranty period shall be extended for such period of time as it takes the Contractor to complete the scheduled maintenance.

CONTROL OF WORK

D21. JOB MEETINGS

D21.1 Regular weekly job meetings will be held at the Site. These meetings shall be attended by a minimum of one representative of the Contract Administrator and one representative of the Contractor; and may be attended by a minimum of one representative of the City. Each representative shall be a responsible person capable of expressing the position of the Contract Administrator, the City and the Contractor respectively on any matter discussed at the meeting

including the Work schedule and the need to make any revisions to the Work schedule. The progress of the Work will be reviewed at each of these meetings.

D21.2 The Contract Administrator reserves the right to cancel any job meeting or call additional job meetings whenever he/she deems it necessary.

D22. PRIME CONTRACTOR – THE WORKPLACE SAFETY AND HEALTH ACT (MANITOBA)

D22.1 Further to C6.24, the Contractor shall be the Prime Contractor and shall serve as, and have the duties of the Prime Contractor in accordance with The Workplace Safety and Health Act (Manitoba).

D23. THE WORKPLACE SAFETY AND HEALTH ACT (MANITOBA) – QUALIFICATIONS

D23.1 Further to B12.4, the Contractor/Subcontractor must, throughout the term of the Contract, have a Workplace Safety and Health Program meeting the requirements of The Workplace Safety and Health Act (Manitoba). At any time during the term of the Contract, the City may, at its sole discretion and acting reasonably, require updated proof of compliance, as set out in B12.4.

D24. WORK BY OTHERS

D24.1 Work by others on or near the Site may include but not necessarily be limited to:

- (a) Flushing water contractors
- (b) Grid classifier contractors

STANDARDIZATION

D25. STANDARDIZED GOODS

D25.1 The following goods have been standardized by the City and will be supplied by the City:

- (a) Standardized Uninterruptible Power Supplies as per **E23**.

D25.2 The following goods have been standardized by the City and will be supplied by the Contractor:

- (a) Standardized Control System and Motor Control Equipment as per **E25**.
- (b) Standardized Instrumentation as per **E26**.

D26. CONTRACTUAL ARRANGEMENT

D26.1 Each Standardization Vendor shall be a Subcontractor of the Contractor.

D26.2 The City's contract with each of the Standardization Vendors defines the prices and general terms of supply to the Contractor. Each Standardization Vendor is obligated to enter into a contract with the Contractor, based upon such prices and general terms of supply.

D26.2.1 The City is not a party to any contract between a Standardization Vendor and the Contractor, or any Subcontractor.

D26.3 In the event that a potential dispute arises between the Contractor and a Standardization Vendor, the Contract Administrator shall be notified.

D27. PAYMENT OF STANDARDIZATION VENDORS

D27.1 The Contractor is obligated to pay the Standardization Vendors in accordance with general terms of supply applicable to such Standardization Vendor.

D27.2 The Contractor's payment terms to the Standardization Vendor, in respect of Standardized Control System and Motor Control Equipment identified in **E25**, include the following:

- D27.2.1 Except as indicated in D27.2.2, payment shall be in Canadian funds net thirty (30) Calendar Days after shipment.
- D27.2.2 Payment for motor control centres shall be in Canadian funds net thirty (30) Calendar Days and initiated based upon the following schedule:
- (a) Upon approval of the shop drawings or forty (40) Calendar days after the last comprehensive submittal, in the event that a response is not made to the submittal: 25% of the total value.
 - (b) Upon delivery of the complete MCC along with all associated as-manufactured documentation: 60% of the total value; or
 - (c) In the event that the delivery is intentionally delayed, upon request by the Contractor, the following payment schedule would replace the 60% payment:
 - (i) Upon completion of the FAT and delivery of all as-manufactured documentation to the Contractor – 30% of the total value.
 - (ii) Forty (40) Calendar days after delivery of the as-manufactured documentation to the Contractor, or upon delivery, whichever comes sooner – 30% of the total value.
 - (d) Upon successful commissioning and delivery of documentation or six (6) months after delivery, whichever comes first: 15% of the total value.
- D27.3 The Contractor's payment terms to the Standardization Vendor, in respect of Standardized Instrumentation identified in **E26**, include the following:
- D27.3.1 Payment shall be in Canadian funds net thirty (30) Calendar Days after receipt and approval of the Standardization Vendor's invoice.

MEASUREMENT AND PAYMENT

- D27.4 The City's payment to the Contractor, associated with Standardized Goods, will be in accordance with C12.

D28. PAYMENT

- D28.1 Further to C12, the City may at its option pay the Contractor by direct deposit to the Contractor's banking institution.

WARRANTY

D29. WARRANTY

- D29.1 Notwithstanding C13.2, the warranty period shall begin on the date of Total Performance and shall expire one (1) year thereafter, except where longer warranty periods are specified in the respective Specification sections, unless extended pursuant to C13.2.1 or C13.2.2, in which case it shall expire when provided for thereunder.
- D29.1.1 For the purpose of Performance Security, the warranty period shall be one (1) year.
- D29.2 Notwithstanding C13.2, the Contract Administrator may permit the warranty period for a portion or portions of the Work to begin prior to the date of Total Performance if a portion of the Work cannot be completed because of unseasonable weather or other conditions reasonably beyond the control of the Contractor but that portion does not prevent the balance of the Work from being put to its intended use.
- D29.2.1 In such case, the date specified by the Contract Administrator for the warranty period to begin shall be substituted for the date specified in C13.2 for the warranty period to begin.

FORM H1: PERFORMANCE BOND
(See D12)

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. 677-2016

WEST END SEWAGE TREATMENT PLANT – CONSTRUCTION OF EFFLUENT MONITORING STATION

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 D12)

(Date)

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

RE: PERFORMANCE SECURITY - BID OPPORTUNITY NO. 677-2016

WEST END SEWAGE TREATMENT PLANT – CONSTRUCTION OF EFFLUENT MONITORING
STATION

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 - SPECIFICATIONS

GENERAL

E1. APPLICABLE SPECIFICATIONS AND DRAWINGS

- E1.1 These Specifications shall apply to the Work.
- E1.2 *The City of Winnipeg Standard Construction Specifications* in its entirety, whether or not specifically listed on Form B: Prices, shall apply to the Work.
- E1.2.1 *The City of Winnipeg Standard Construction Specifications* is available on the Information Connection page at The City of Winnipeg, Corporate Finance, Materials Management Division website at <http://www.winnipeg.ca/matmgt/Spec/Default.stm>
- E1.2.2 The version in effect three (3) Business Days before the Submission Deadline shall apply.
- E1.2.3 Further to C2.4(d), Specifications included in the Bid Opportunity shall govern over *The City of Winnipeg Standard Construction Specifications*.
- E1.3 The following are applicable to the Work:

<u>Specification No.</u>	<u>Specification Title</u>
01 00 00	General Provisions
01 45 00	Quality Control
01 56 00	Temporary Barriers and Enclosures
01 91 13	General Pre-Commissioning (Cx) Requirements
01 91 33	Pre-Commissioning Forms
03 10 00	Concrete Forming and Accessories
03 20 00	Concrete Reinforcement
03 30 01	Cast-In-Place Concrete
04 05 00	Common Work Results for Masonry
04 05 12	Masonry Mortar and Grout
04 05 19	Masonry Anchorage and Reinforcing
04 05 23	Masonry Accessories
04 22 00	Concrete Unit Masonry
05 12 23	Structural Steel
05 14 11	Structural Aluminum
05 50 00	Metal Fabrications
05 60 00	Stainless Steel Slide Gates
06 17 53	Shop – Fabricated Wood Trusses
07 21 13	Board Insulation
07 27 11	Air Barriers - Performance
07 41 00	Metal Roof and Metal Flashing
07 92 10	Joint Sealing
08 11 14	Metal Doors and Frames
08 70 05	Cabinet and Miscellaneous Hardware
08 71 10	Door Hardware – General
09 91 23	Interior Painting
10 44 16.19	Fire Extinguishers
22 05 00	Mechanical Plumbing General Provisions
22 10 10	Pumps
22 13 18	Domestic Waste and Vent Piping - Plastic
22 15 00	General Service Compressed Air Systems
22 42 01	Plumbing Specialties and Accessories
23 05 00	Mechanical HVAC General Provisions
23 05 05	Installation of Pipework
23 05 19.01	Thermometers and Pressure Gauges - Piping Systems
23 05 29	Hangers and Supports for HVAC Piping and Equipment
23 05 54	Mechanical Identification

23 05 93	Testing, Adjusting and Balancing for HVAC
23 07 13	Thermal Insulation for Ducting
23 31 13.01	Metal Ducts - Low Pressure to 500 Pa
23 33 00	Air Duct Accessories
23 33 14	Dampers- Balancing
23 33 15	Dampers– Operating
23 34 00	Fans
23 37 13	Diffusers, Louvres and Grilles
23 37 20	Louvres, Intakes and Vents
23 44 00	HVAC Air Filtration
23 55 01	Duct Heaters
23 82 39.01	Unit Heaters – Electric
26 05 01	Common Work Results – Electrical
26 05 20	Wire and Box Connectors 0-1000 V
26 05 21	Wires and Cables 0-1000 V
26 05 28	Secondary Grounding
26 05 29	Hangers and Supports for Electrical Systems
26 05 32	Outlet Boxes, Conduit Boxes and Fittings
26 05 34	Conduits, Conduit Fastenings and Conduit Fittings
26 05 43	Installation of Cables in Trenches and Ducts
26 08 05	Acceptance Testing
26 24 17	Panelboards Breaker Type
26 27 26	Wiring Devices
26 28 21	Moulded Case Circuit Breakers
26 29 03	Control Devices
26 29 10	Motor Starters to 600V
26 41 13	Lightning Protection for Structures
26 50 00	Lighting
26 52 01	Unit Equipment for Emergency Lighting
31 23 10	Excavation Trenching and Backfilling
40 05 01	Common Work Results
40 80 08	Factory Acceptance Test
40 80 11	Automation Commissioning
40 91 00	Automation – Process Measurement Devices
40 92 00	Automation – Primary Control Devices
40 94 43	Programmable Logic Controllers (PLCs)
40 95 13	Control Panels
40 95 20	Human Machine Interface (HMI)
40 95 74	Junction Boxes - Automation
40 99 01	Training
40 99 90	Maintenance and Support
<u>Drawing No.</u>	<u>Drawing Name/Title</u>
1-0103-DGAD-ZT01	Cover Sheet
1-0103-CGAD-Z001	Site Plan
1-0103-CGAD-Z001	Site Plan Civil Works
1-0103-PHYD-Z001	Hydraulic Profile
1-0103-CGAD-ZT01	General Arrangement Drawing – Civil – Temporary Pumping
1-0103-BGAD-Z001	General Arrangement Drawing – Building – Elevations
1-0103-BDTL-Z001	Architectural Details – Building – Details
1-0103-SAAA-Z001	Legend and General Notes – Structural
1-0103-SGAD-Z001	General Arrangement Drawing – Structural – Plan
1-0103-SGAD-Z002	General Arrangement Drawing – Structural – Sections
1-0103-SRDW-Z001	Reinforcement Drawing – Structural - Sections
1-0103-SDTL-Z001	Miscellaneous Metals – Structural – Details
1-0103-SGAD-Z003	General Arrangement Drawing – Structural – Existing Gate Chamber Slide Gate Replacement
1-0103-MGAD-Z001	General Arrangement Drawing Mechanical – Equipment and Piping Plan
1-0103-MGAD-Z002	General Arrangement Drawing Mechanical – Equipment and Piping Sections

1-0103-ESLD-Z001	Single Line Diagram - Main Distribution
1-0103-EGAD-Z001	General Arrangement Drawing - Main Floor Plan - Power and Systems
1-0103-EGAD-Z002	General Arrangement Drawing - Lower Level Plan - Power and Systems Layout
1-0103-ELTG-Z001	General Arrangement Drawing - Main Floor Plan - Lighting Layout
1-0103-ELTG-Z002	General Arrangement Drawing - Lower Level Plan - Lighting Layout
1-0103-EGRD-Z001	General Arrangement Drawing - Grounding Plan
1-0103-ESCH-Z001	Schedules - Luminaire and Panel Schedules
1-0103-ACBD-Z008	Junction Box Layout and Bill of Materials - JBA-Z0003, JBA-Z0007, JBA-Z0041, ADP-Z801 - JBA-Z6010, JBA-Z6060
1-0103-ECTR-Z001	Conduit Riser Diagram
1-0103-PPID-Z001	Process and Instrumentation Diagram - Effluent P&ID
1-0103-PPID-Z601	Process and Instrumentation Diagram - HVAC P&ID
1-0103-ABDG-Z001	Block Diagram - Control System Architecture
1-0103-AIFS-Z001	Instrument Fieldbus Segment Drawing
1-0103-EHLC-Z001	Area Classification - Main and Lower Level Floor Plan
1-0103-ACBD-Z003	Wiring/Connection Diagram PLC Panel CP-Z800 - Power Distribution
1-0103-EGAD-Z003	Electrical Site Plan - Buried Cable Routing
1-0103-EGAD-Z004	Partial Electrical Site Plan - Buried Cable Routing - Effluent Monitoring Station
1-0103-ECTR-Y001	Partial Electrical Site Plan - Buried Cable Routing - Main Plant
1-0103-EDTL-Y001	Installation Details - Electrical Poles and Cable Trenches
1-0103-ACBD-Z001	Station PLC - Cabinet Layout - CP-Z800 PLC Panel
1-0103-AILD-Z001	Loop Diagram - LSH-Z0003, LSH-Z0007
1-0103-AILD-Z002	Loop Diagram - PSH-Z0050, HS-Z5050
1-0103-AILD-Z003	Loop Diagram - LSL-Z0041, HS-Z0040
1-0103-AILD-Z004	Loop Diagram - PSL-Z5030, FSL-Z0042, SA-Z006, FIT-Z0002
1-0103-AILD-Z601	Loop Diagram - XV-Z6010, XV-Z6060, PDSH-Z6020
1-0103-AILD-Z602	Loop Diagram - MSH-Z605, HS-Z6040
1-0103-AILD-Z603	Loop Diagram - HCE-Z6030
1-0103-AILD-Z005	Loop Diagram - ZSC-Z9801-1, ZSC-9801-1, ES-Z7030
1-0103-ACBD-Z002	UPS Enclosure Layout and Bill of Materials - PLC (CP-Z800) and UPS (PSP-Z800)
1-0103-EMCL-Z001	Motor Control - P-Z004 Motor Schematic and Wiring Diagram
1-0103-EMCL-Z002	Motor Control - P-Z005 Motor Schematic and Wiring Diagram
1-0103-EMCL-Z601	Motor Control - SF-Z604 Motor Schematic and Wiring Diagram
1-0103-ACBD-Z004	Module Wiring Diagram - Rack 0 Slot 2 - Discrete Input
1-0103-ACBD-Z005	Module Wiring Diagram - Rack 0 Slot 3 - Discrete Input
1-0103-ACBD-Z006	Module Wiring Diagram - Rack 0 Slot 4 - Discrete Output
1-0103-ACBD-Z007	Module Wiring Diagram - Rack 0 Slot 5 - Analog Output
1-0103-AGAD-S001	Partial Site Plan - Secondary Clarifier Control Room
1-0103-ACR-S001	Partial Site Plan - Secondary Clarifier Lower Level
1-0103-EWDG-Z001	Wiring Schematics - Motion Sensor
1-0103-ACBD-S001	Networking - Layout and Bill of Materials - PNL NP-S901 and NP-Z900
1-0103-AWDG-S001	Wiring Schematics - PANEL NP-S901 AND UPS BREAKER BOX

E2. SOILS INVESTIGATION REPORT

- E2.1 Further to C3.1, a geotechnical soils investigation was completed and geotechnical test holes have been drilled in the vicinity of the proposed Works to determine the character of the subsurface soil to facilitate the design of the Work. The information listed is considered accurate at the locations indicated and at the time of the investigation. However, considerable variations in the soil conditions may exist between test holes and fluctuations in ground water levels can be expected seasonally. The geotechnical investigation report with test hole logs is included as an appendix.

E3. CONSTRUCTION PLAN

- E3.1 A Construction Plan has been developed that identifies the risks associated with the Work that the Contractor must address during construction. The plan also provides a sample schedule demonstrating a methodology for constructing the Work in accordance with the Drawings and

Specification. The plan provides insight into the expectations of the Contractor during Construction. The Construction Plan is included as an appendix.

E4. PROJECT COMMISSIONING PLAN

E4.1 A Project Commissioning Plan has been prepared that details how the Effluent Monitoring Station and its associated equipment will be brought on-line and verified while maintaining the existing operations of the WEWPCC. The plan also outlines the Contractor's responsibilities with respect to pre-commissioning, commissioning, training and turnover of the station to the WEWPCC. The Project Commissioning Plan is included as an appendix

E5. ELECTRICAL AND AUTOMATION DOCUMENTS

E5.1 The following electrical and automation documents have been included as appendices and must be adhered to:

- (a) Functional Requirement Specifications
- (b) Process Control Narrative
- (c) Instrument Datasheets
- (d) Cable Schedule

E6. REFERENCE DRAWINGS

E6.1 Reference drawings of existing plant facilities including the existing nearby Gate Chamber building are attached in Appendix D.

GENERAL REQUIREMENTS

E7. HAZARDOUS MATERIALS

E7.1 If asbestos or other hazardous materials are encountered during the Work of the Contract, the Contractor shall stop all Work and notify the Contract Administrator immediately. Removal of hazardous materials shall be dealt with by the City and the Contractor shall await further instruction by the Contract Administrator.

E8. EXPEDITED SHOP DRAWINGS

E8.1 In order to expedite Shop Drawings with critical timeliness, the lowest responsive bidder, as outlined in B17, will be permitted, after receiving written approval by the Contract Administrator, to arrange for the preparation of Shop Drawings for the following items in advance or receipt of Award:

- (a) Slide Gates (Specification No. 05 50 00);
- (b) Magmeter (Specification No. 22 05 00).

E8.2 If award is made to the lowest responsive bidder, then as indicated in E8.1, no payment for the preparation of Shop Drawings will be made.

E8.3 If no Contract is awarded, or the Contract is awarded to a bidder other than the lowest responsive bidder, the City of Winnipeg will pay the lowest responsive bidder up to a maximum of five hundred dollars (\$500.00) for each of the requested submissions noted above, for the preparation and delivery of Shop Drawings. Delivery of the Shop Drawings to the City and payment of the above amounts will constitute full and final consideration of each party to the other, and neither party will have any further liability to the other with respect to this Bid Opportunity.

E9. SPECIFIC REQUIREMENTS

- E9.1 The Contractor shall provide all materials, fabrications, finishes, temporary installation, documentation, shop drawings, means and methods necessary to fully install all of the new works identified on the contract drawings in a safe manner, fit-for-purpose intended. The description of Work provided herein is intended to be a general description of Work activities, and is not intended to be an exhaustive listing of all tasks necessary to complete the scope of installations given on the drawings or specifications.
- E9.2 The Contractor shall abide by the Arc Flash PPE requirements of CSA-Z462, Workplace Electrical Safety, and the arc flash labels on existing facility equipment.
- E9.3 Wire nuts
- (a) Wire nuts are not permitted in conduit bodies.
 - (b) Wire nuts are permitted in junction boxes for lighting and receptacle wiring only. Wire nuts are not permitted for automation wiring.
- E9.4 All conduit routes shall be approved by the Contract Administrator prior to installation of new conduit.

E10. SURVEYING

- E10.1 There are surveying requirements within the Work. All surveying requirements are the responsibility of the Contractor.

E11. EQUIPMENT AND MATERIALS

- E11.1 The Contractor shall supply all equipment and materials necessary to execute the Work.
- E11.2 Existing equipment and materials may be re-used only as specifically indicated in these specifications, as shown on the Drawings or as approved by the Contract Administrator.

E12. SECURITY AND SAFETY

- E12.1 The Contractor is responsible for all material and equipment stored on the site.
- E12.2 The Contractor is responsible for ensuring the security of the construction site and related temporary pumping systems.
- (a) This shall include
 - (i) Construction fencing around the Site that clearly delineates the Work Site. Fencing extending to the West of the existing fence line at the WEWPCC shall have reflective markings to alert snowmobilers.
 - (ii) Warning signs to alert snowmobilers of pump discharge line (if not fenced in).

E13. EXISTING FACILITY OPERATION DURING CONSTRUCTION

- E13.1 The WEWPCC facility related to the Work is critical to the treatment of wastewater for the City of Winnipeg. Under no condition shall the effluent flow be stopped, pond levels be adjusted, or the process otherwise impacted without prior permission of the Contract Administrator.
- E13.2 The Contractor is advised that any temporary pumping or other potential impact to the process will be allowed to be taken out of operation only after the Contractor's schedule of activities, including provisions for temporary by-pass pumping operations, to complete the Work is approved by the Contract Administrator. The Contractor shall plan construction activities to allow for the minimum amount of disruption time to normal operating status of the facility.
- E13.3 The Contractor shall cooperate with and provide full access at all times for City personnel to carry out maintenance and operational duties.

- (a) No additional payments will be made for providing access to City forces on the site or any potential affect City crews might have on the Contractor's Work.

E13.4 The Contract Administrator reserves the right to cancel a planned station shutdown if in their opinion, flow conditions or the weather forecast would not allow for a shutdown of sufficient duration to complete the work activity. The Contractor shall reschedule the work activity to a more suitable time

E14. PLANT EFFLUENT TEMPORARY BY-PASS PUMPING

E14.1 Provide plant effluent bypass capabilities as specified in the Construction Plan attached in Appendix C.

E14.2 Provide suitable traffic ramps approved by the Contract Administrator if the by-pass pumping discharge pipe and power supply cables are laid across vehicle or pedestrian traffic areas on the Site.

E14.3 If the first pump cannot maintain level, the second pump shall come on. That is the two temporary pumping systems shall have the capability to run the design capacity pump and full standby capacity pump at the same time.

E14.4 Provide all pumping and dyking, sewer plugs or other temporary measures required to install the temporary pumping system.

E14.5 Provide an alarm when the water level rises to 150 mm above pump start elevation. Send this alarm via cell phone to the Contractor's 24 hour emergency contact number and at the same time to the designated City emergency contact number.

E14.6 Sewers can receive flow of an undetermined amount from watermain breaks, snow melt, rain and other unforeseen sources. The Contractor will be responsible to monitor the pond level and adjust work activities accordingly, such as putting the spare standby by-pass pump into operation to handle any excessive flows due to unforeseen flow resulting in water levels above the amount identified.

- (a) The Contract Administrator may work with the City by sharing updates on the WEWPCC flowrates if they significantly change, which may be communicated with the Contractor to try to help manage their pumping flowrates.

E14.7 There shall be no claim for additional costs or time due to increased standby pumping operations from high wet weather flows.

E14.8 Cooperate and coordinate with the City to allow full access at all times for City staff to carry out maintenance and operational duties on the site.

E14.9 The Contractor shall ensure temporary by-pass pumping equipment and materials will be properly insulated and heated, if required, to be protected from freezing and to maintain proper functioning during cold weather.

E14.10 Temporary pumping equipment and materials shall remain on-site until the Effluent Monitoring Station construction is completed as described in these Specifications and to the satisfaction of the Contract Administrator.

E14.11 High Flows

- (a) In the event the flows are expected to exceed the amount indicated due to events including, but not limited to warm weather melt, water main breaks, or other events, the Contract Administrator may suspend Work activities that require temporary by-pass pumping and temporary shutdowns. Suspension of these activities will continue until the high flow diminishes.
- (b) In the opinion of the Contract Administrator, if suspension of Work activities that require temporary by-pass pumping and temporary shutdown causes a delay in completion of the

Work through no fault of the Contractor, the completion date of the Work will be adjusted accordingly.

E15. FLOW CONTROLS IN EXISTING GATE CHAMBER

- E15.1 The existing slide gates in the existing Gate Chamber are not believed to function. Operation of these valves should not be undertaken without notification of the WEWPCC superintendent and the Contract Administrator.
- E15.2 The water level for the polishing ponds upstream of the gate chamber are controlled by stop log weirs. The Contractor shall not modify the existing stop log weirs or install alternate stop log weirs that could impact water level on the ponds without prior notification of both the WEWPCC Superintendent and the Contract Administrator.

E16. DANGEROUS WORK CONDITIONS

- E16.1 Further to clause C6.26 of the General Conditions, the Contractor shall be aware that underground chambers, manholes, and sewers are considered a confined space and shall follow the "Guidelines for Confined Entry Work" as published by the Manitoba Workplace Safety and Health Division.
- E16.2 The Contractor shall be aware of the potential hazards that can be encountered in underground chambers, manholes and sewers such as explosive gases, toxic gases and oxygen deficiency. The Contractor's Safe Work Plan should address these issues.
- E16.3 The air in a confined space must be tested before entry and continuously during the time that personnel are inside the space. Equipment for continuous monitoring of gases must be explosion-proof and equipped with a visible and audible alarm. The principal tests are for oxygen deficiency, explosion range and toxic gases. Testing equipment must be calibrated in accordance with manufacturer's specifications.
 - (a) The Contractor is responsible for all testing requirements.
- E16.4 The Contractor shall ventilate all confined spaces including underground chambers, tunnels, pipes and shafts as required and approved by the Manitoba Workplace Safety and Health Act (the "Act"). If no ventilation is supplied, a worker must wear a respirator or supplied air to enter the confined space.
- E16.5 Workers must wear a respirator or supplied air at all times when entering an underground chamber, manhole or sewer.
- E16.6 The Contractor shall provide a photo-ionization detector (PID) and toxic gas detector on site at all times to monitor potential hydrocarbon vapours and hydrogen sulphide in the confined spaces. The gas detector and safety equipment conforming to the Act shall be made available to the Contract Administrator for his use during inspections.
- E16.7 The Contract Administrator may issue a stop work order to the Contractor if the above guidelines are not being followed. The Contractor shall not resume operations until the Contract Administrator is satisfied the Contractor is following the appropriate procedures. The Contractor shall have no claim for extra time or costs due to the stop work order for not following these safety guidelines.

E17. TEMPORARY USE OF CITY EQUIPMENT

- E17.1 City facilities, systems and equipment shall not be used during construction without the Contract Administrator's written permission. The Contract Administrator reserves the right to withdraw said permission if, in his opinion, proper care and maintenance are not provided.

E18. EXCAVATION

- E18.1 Remove existing surface installations as shown on the project drawings, as required to allow the excavation Work to proceed without damage to existing installations. For installations that are to be reinstalled after completion of the Work, store all materials in a secure location, away from the Work area.
- E18.2 All excavation Work to be in accordance with CW 2030.
- E18.3 All working areas below grade shall be kept adequately and securely supported during and after excavation until the shoring and bracing is in place to prevent loss of ground and injury to any person from falling or caving material.

E19. WORK PLAN

- E19.1 The Contractor is required to develop a detailed Work plan and submit to the Contract Administrator for review within 2 Business Days of Commencement. The Work plan is to include:
- (a) The proposed construction sequence to be followed including all methods to be employed to ensure that no damage occurs to existing structures or adjacent properties within or adjacent to an excavation.
 - (b) Detailed design and installation drawings for the excavation shoring system that is to be used for construction.
 - (c) A description of all proposed methods of construction to be implemented.
 - (d) Specialized equipment that may be used.
 - (e) Any design revisions proposed to accommodate the Contractor's proposed method of construction.
 - (f) Water control methods to be utilized during construction, including the Contractor's proposed method for draw down and depressurization of the groundwater till pressures in the area of the excavation, temporary by-pass effluent pumping, and any required surface runoff control measures.
 - (g) The Contractor shall respond to any concerns that may be raised by the Contract Administrator's review of the Contractor's construction methods submission.

E20. SITE RESTORATION

- E20.1 Description
- E20.1.1 This specification shall cover surface restoration and associated items of Work for existing surfaces disturbed by construction activities, as well as fencing.
- E20.2 Construction Methods
- E20.2.1 Restoration of all existing surface areas disturbed by construction activities including but not limited to; operation of construction equipment, placement of field office or equipment trailer, snow clearing and where construction materials were stockpiled, shall be restored as follows.
- (a) Grassed areas: sodding using imported topsoil in accordance with CW 3510.
 - (b) Gravel surfaces: in accordance with CW 3150.

E21. TEMPORARY SHORING

- E21.1 Scope of Work
- (a) Design, supply and install temporary shoring systems necessary to the depths and dimensions necessary. Temporary shoring shall be in accordance with the latest revision of the "Construction Safety Act" of the Province of Manitoba Department of

Labour and in accordance with the province of Manitoba "W210 workplace Safety and Health Act" and "Guideline for Excavation Work".

- (b) Backfill around the new Effluent Monitoring Station. Bedding and backfill around the horizontal pipes as per City of Winnipeg Specification CW2130.
- (c) Restore surface works to preconstruction condition.

E21.2 Specifications

E21.2.1 Backfill

- (a) Place and compact backfill material as indicated on the Drawings in accordance with CW 2030. Do not place backfill material in a frozen state. Supply heating and hoarding in accordance with CW 2160 if required to ensure material does not freeze before compaction is complete.

E21.2.2 Excavation Security Fence

- (a) Further to Clause 3.1 of CW 1130, provide a security fence to completely surround the excavation when unattended in accordance with the following:
 - (i) Security fence shall be chain link fence or approved equal, a minimum 1.80 metres high with metal support posts embedded far enough into the ground and spaced close enough together so the fence will not sag or collapse.
 - (ii) Attach fencing securely to posts.
 - (iii) Secure the gate or end of the fencing to a post with chain and a padlock.
 - (iv) Provide alternate security fence proposal to Contract Administrator for approval.

E22. WET WELL AND GATE CHAMBER CLEANOUT

E22.1 Clean out the wet well and Gate Chamber Work areas after completion of construction.

E22.2 Ensure that all construction material and debris are removed from the wet well after completing the works and prior to start-up and commissioning of the Effluent Monitoring Station.

- (a) Contractor to provide post construction photographs of the cleanout demonstrating that the above has been carried out.

E22.3 Schedule upstream Work that may produce debris prior to wet well final cleanout.

CITY SUPPLIED STANDARDIZED GOODS

E23. UNINTERRUPTIBLE POWER SUPPLIES – THREE-PHASE

E23.1 The City has procured the supply and delivery of three-phase Uninterruptible Power Supplies (UPS) with ratings of 10 KVA through 30 KVA. The procurement of UPS units was selected via RFP 341-2013 and was awarded to Eecol Electric.

- (a) Copies of the original tender documents are available from City of Winnipeg Material Management's website.

E23.2 Specific UPS equipment to be provided by the City includes:

- (a) 24VDS UPS

E23.3 Coordination with City

E23.3.1 Coordinate with the City to determine the required delivery schedule and advise City when equipment is required on site.

- E23.3.2 The vendor has indicated that typical deliveries are 6 to 8 weeks from the date of order. Allow an additional 6 weeks for the City to process the order.
- E23.3.3 Provide a minimum of 15 Working Days' notice to schedule the service technician to start-up the UPS units.
- E23.4 Storage and Delivery
- E23.4.1 The equipment will be delivered to and stored at the following City location:
Attention: Supervisor of Electrical and Instrumentation Maintenance (Wastewater)
City of Winnipeg
Water and Waste Department
Wastewater Services Division
598 Plinguet Street
Winnipeg, MB, R2J 2W7
- E23.4.2 After inspection of the equipment as per E23.5, pick-up and deliver the equipment to the Site for installation. Pay all costs for transportation of equipment from the designated pick-up location.
- E23.4.3 Coordinate with the Contract Administrator to schedule pick-up of the equipment.
- E23.5 Inspection of Equipment and Turnover to the Contractor
- E23.5.1 Inspect all equipment supplied prior to picking up the equipment. Coordinate the inspection with the Contract Administrator. The Contract Administrator or designated representative shall be present during the inspection.
- E23.5.2 Complete and execute a Certificate of Equipment Delivery (Form 100).
- E23.6 The Contractor shall be responsible for the installation of the equipment to be supplied under the standardization contracts in addition to this Contract. The installation shall be in accordance with the applicable manufacturers' installation requirements.
- E23.7 UPS Start-up
- E23.7.1 The UPS vendor will provide UPS start-up services for the UPS. This does not relieve the Contractor of all installation responsibilities.
- E23.7.2 Ensure and verify all installation is complete prior to UPS start-up.
- E23.7.3 The Contractor shall be responsible for supervising and coordinating the services to be provided by the UPS Vendor.
- E23.7.4 The costs for the start-up of the UPS by the UPS vendor will be paid for by the City. The Contractor will be responsible for all additional costs incurred by the City due to the Contractor not completing the installation completely or appropriately prior to UPS start-up.

CONTRACTOR SUPPLIED STANDARDIZED GOODS

E24. GENERAL REQUIREMENTS

- E24.1 Comply with the general requirements of E24 for all Standardized Goods supplied by the Contractor.
- E24.2 Comply with the following Standardization Goods requirements:
- E24.2.1 Control System and Motor Control Equipment in accordance with E25.
- E24.2.2 Instrumentation in accordance with E26.
- E24.3 Contact the Contract Administrator regarding any potential uncertainty as to whether a good is covered under a standardization agreement.

- E24.4 The Contractor may utilize a Standardization Vendor to provide other goods required under the Contract, in addition to Standardized Goods.
- E24.5 The Contractor shall separately track all goods supplied under each standardization agreement.
- E24.5.1 In the event that one or more Standardization Vendors are utilized to procure goods not covered under a standardization agreement, the Contractor shall ensure such goods are quoted, ordered, tracked and accounted in a separate manner.
- E24.6 Pricing:
- E24.6.1 The City has obtained discounted pricing for Standardized Goods. Each Standardization Vendor is obligated to sell Standardized Goods to all prospective Contractors at the discounted price, provided the goods are for the City of Winnipeg.
- E24.6.2 The Standardization Vendors may at their option provide lump sum pricing for goods packages. The Standardization Vendor is not required to provide breakout pricing details to the Contractor.
- E24.6.3 The Contractor and Subcontractors shall not utilize the City's agreements with the Standardization Vendors for any purpose other than City work.
- E24.6.4 The City may audit the goods purchased from the Standardization Vendors under the standardization agreements and may identify to the Standardization Vendors any goods procured that are not associated with the Contract.
- E24.7 The Contractor is responsible for ensuring that the Material supplied by the Standardization Vendors meets the requirement of the Contract. The Contractor shall review and confirm quotations supplied by the Standardization Vendors to ensure that all required Material is supplied.
- E24.8 Without limiting or otherwise affecting any other term or condition of the Contract, including (non-exhaustive) D26.2.1:
- E24.8.1 The supply of goods through a Standardization Vendor shall not relieve the Contractor of their obligations.
- E24.8.2 Errors or omissions by a Standardization Vendor shall not be a cause for a Change in Work.
- E24.8.3 Delays by a Standardization Vendor shall not be a cause for a Change in Work where the delay could have been avoided through reasonable planning, contingency allocation, or communication by the Contractor.
- E24.9 Submittals
- E24.9.1 Submittals shall be provided for Standardized Goods in accordance with the Specifications and typical industry practice. Submittals shall not be bypassed for Standardized Goods.

E25. STANDARDIZED CONTROL SYSTEM AND MOTOR CONTROL EQUIPMENT

- E25.1 The City has standardized on a specific vendor for the supply and delivery of control system and motor control equipment. The Standardization Vendor was selected via RFP 756-2013 and was awarded to Schneider Electric Canada Inc. (Schneider).
- (a) Refer to E25.6 for contact information.
- (b) Copies of the tender documents are available from City of Winnipeg Material Management's website.
- E25.2 Goods to be procured via this standardization agreement includes but is not limited to:
- (a) Programmable Controllers (PLCs) including all associated components, hardware and software.
- (b) PLC to Infi90 Termination Unit migration cables.

- (c) Programmable Controller Programming Software.
- (d) Process Simulator Software.
- (e) HMI System software.
- (f) Historian Server and Client Software.
- (g) Touchscreen HMI systems such as Magellis HMIs.
- (h) Touchscreen HMI Programming Software.
- (i) Motor Control Centers including all components
- (j) Loose VFDs, motor starters, soft starters, and associated components.
- (k) Industrial Ethernet Switches as per design. Note that some Ethernet switches may be specified to be from other vendors due to application requirements. Refer to drawings and specifications.
- (l) Version Management Software.
- (m) Information Server Software..

E25.3 For clarity, this standardization agreement does not include:

- (a) Computer workstation hardware including operating systems;
- (b) Computer server hardware, including operating systems and general terminal server / client software;
- (c) Thin client terminals;
- (d) Fused and un-fused disconnect switches not incorporated into a MCC or other motor starter;
- (e) Control stations and pendants not incorporated into a MCC or other motor starter;
- (f) Electrical Transformers not in a MCC or motor starter;
- (g) Panelboards not integrated in a MCC;
- (h) Switchboards / Switchgear not integrated in a MCC;
- (i) System Integration Services (including programming and configuration);
- (j) Control Panels to house PLCs;
- (k) Instrumentation;
- (l) Power supplies not integrated with the PLC / HMI systems; and
- (m) Terminal blocks not integrated with the PLC / HMI systems

E25.4 The following model series shall be utilized unless otherwise indicated in the Specifications, Drawings or otherwise approved by the Contract Administrator:

- (a) Quantum, M580, and M340 PLCs;
- (b) X80 PLC I/O;
- (c) Unity Pro programming software;
- (d) Vijeo Citect HMI systems;
- (e) Wonderware Historian;
- (f) Local HMI – Magellis HMIGTO or HMIGTU series;
- (g) Model 6 MCC – NEMA rated starters, Intelligent Ethernet (unless otherwise specified);
- (h) Altivar 61 series VFDs for variable torque applications; and
- (i) Altivar 71 series VFDs for variable torque applications.

E25.5 Commissioning and start-up:

E25.5.1 Commissioning and start-up of all goods purchased under this standardization agreement shall be performed by the Contractor. Schneider is only obligated to provide MCC start-up services under the Standardization Agreement. Coordinate with Schneider as required to understand the limitations of Schneider's MCC start-up services and provide all remaining testing, commissioning and start-up services to provide a complete commissioning and start-up.

E25.6 Primary contact for all quotations and purchases:

Garth Eastman
21 Omands Creek Blvd
Winnipeg, MB, R2R 2V2
Telephone: 204-631-0670
E-mail: garth.eastman@ca.schneider-electric.com

E25.7 Quotations and orders:

E25.7.1 Reference the following in all quotation requests and purchase orders:

- (a) This Bid Opportunity number; and
- (b) The standardization agreement number RFP 756-2013.

E26. STANDARDIZED INSTRUMENTATION

E26.1 The City has standardized on a specific vendor for the supply and delivery of specific instrumentation. The Standardization Vendor was selected via RFP 449-2014 and was awarded to Trans-West Supply Company Inc. (Trans-West).

- (a) Copies of the tender documents are available from City of Winnipeg Material Management's website.
- (b) Refer to E26.6 for contact information

E26.2 Goods to be procured via this standardization agreement include but are not limited to:

- (a) Flowmeters – Electromagnetic;
- (b) Flowmeters – Differential pressure based;
- (c) Pressure Transmitters including manifold assemblies;
- (d) Temperature Transmitters including temperature elements and thermowells;
- (e) Ultrasonic Level Transmitters; and
- (f) Associated accessories.

E26.3 For clarity, this standardization agreement does not include:

- (a) Flowmeters - Coriolis;
- (b) Flowmeters – Thermal Dispersion;
- (c) Flowmeters – Ultrasonic;
- (d) Flow switches (i.e. mechanical);
- (e) Pressure switches;
- (f) Temperature switches;
- (g) Radar Level Transmitters; and
- (h) Level Switches (non-ultrasonic based).

E26.4 The following model series shall be utilized unless otherwise indicated in the Specifications, Drawings or otherwise approved by the Contract Administrator:

- (a) Magnetic Flowmeter Flowtubes – SITRANS F M MAG 5100W series.

- (i) SITRANS F M MAG 3100W series may be utilized where specified.
- (b) Magnetic Flowmeter Transmitters - SITRANS F M MAG 6000 series.
- (c) Pressure Transmitters - SITRANS P DS III.
- (d) Temperature Transmitters
 - (i) SITRANS TF (Process Applications)
 - (ii) SITRANS TH400 (HVAC applications)
- (e) Ultrasonic Level Transmitters
 - (i) Integrated applications: SITRANS Probe LU
 - (ii) Separate controller applications: Multiranger 100/200 with EchoMax transducers.

E26.5 Field setup and commissioning:

- E26.5.1 Field setup and commissioning of the gas detection systems may be performed by Trans-West under the Standardization Agreement. Coordinate with Trans-West as required to understand the capabilities and limitations of Trans-West's field setup and commissioning services and provide all remaining services to provide a complete commissioning and start-up.
- E26.5.2 The Contractor may provide field setup and commissioning services for the instrumentation via alternate means, provided that this does not result in a reduction of the services or quality of work.

E26.6 Primary contact for all quotations and purchases:

Greg Troilo
President
126 Bannister Road
Winnipeg, MB, R3R 0S3
Telephone: 807-623-0909
E-mail: gregt@transwest-mb.com

E26.7 Quotations and orders:

- E26.7.1 Reference the following in all quotation requests and purchase orders:
 - (a) This Bid Opportunity number; and
 - (b) The standardization agreement number RFP 449-2014.

ADDITIONAL WORK

E27. ADDITIONAL WORK

- E27.1 Additional work may be necessitated due to unforeseen circumstances that may arise during the course of the project due to:
 - (a) Additions to the scope of Work by the Contract Administrator, beyond that defined herein.
 - (b) Other issues that occur on site, which require significant Contractor time to address.
- E27.2 Additional services will not be initiated for:
 - (a) Reasons of lack of performance or errors in execution.
 - (b) Scheduling changes initiated by the City, where at least 24 hours notice is given prior to the Contractor's scheduled time to be on site.
- E27.3 Should it be determined that additional material or services are required, the Contract Administrator shall approve the work, prior to commencement of the additional work.

- E27.4 Additional labour will be reimbursed at the rate specified on Form B: Item B13. The rate will not be adjusted for Subcontractors or individuals with specialized skills, without specific approval of the Contract Administrator.
- E27.5 Material Mark-up Factors
- (a) The base cost is to be the wholesale cost of the material, regardless of the Contractor or Subcontractor supplying the material.
 - (b) In general, the party (Contractor or Subcontractor) supplying the material is the party that purchases the material from a supplier who does not perform any work on site, unless otherwise determined by the Contract Administrator.
- E27.5.1 Where the Contractor is supplying the material, the mark-up on the material is limited to fifteen percent (15%).
- E27.5.2 Where a Subcontractor is supplying the material, the total mark-up on the material, including all Subcontractors and the Contractor is limited to twenty-five percent (25%), including the Contractor and all Subcontractors' mark-ups.
- E27.5.3 Where the Contractor's immediate Subcontractor is supplying the material:
- (a) The Subcontractor's mark-up on the material is limited to fifteen percent (15%).
 - (b) The Contractor's mark-up on the material is limited to ten percent (10%).
- E27.5.4 A Third-Level Subcontractor is a Subcontractor of a Subcontractor of the Contractor.
- (a) No Third-Level Subcontractors on this project are approved for additional mark-up.
 - (b) In the event that a Third-Level Subcontractor is utilized, that is not approved for additional mark-up, the Contractor is responsible for coordinating the split of the maximum approved mark-up between the Contractor and Subcontractors.
- E27.6 The Contract Administrator may also request a written quotation for the additional work. For any work, where a written quotation is provided, and subsequently authorized, the valuation of the work shall be as per the quotation, regardless of the actual cost to the Contractor.
- (a) Quotations shall indicate the labour hours and base cost of material, as well as mark-up factors.
 - (b) Labour Rates shall correspond to Form B, unless specifically authorized by the Contract Administrator.
 - (c) Material Mark-up Factors shall be consistent with E27.5

SPARE PARTS

E28. SPARE PARTS

E28.1 General

E28.1.1 The Contractor shall supply and deliver consumables and spare parts and specialty tools as indicated by the applicable schedules below.

E28.2 Schedules

E28.2.1 Consumables Schedule:

Consumable Description	Annual Quantity
HVAC Supply Air Filter	1
Clear plastic hose/piping between the ISOLOK sampler and the Daily Composite Sample Container located within the Refrigerator	1

E28.2.2 Spare Parts Schedule:

Description	Quantity
Motion Sensor Light Switch	1
Schneider Electric M340 CPU Module	1
Schneider Electric Discrete Input Module	1
Schneider Electric Discrete Output Module	1
Schneider Electric Modbus TCP Module	1
Schneider Electric Ethernet Switch	1
Schneider Electric Profibus Remote Master Module	1
Float Level Switch	1
Type A Main Floor LED Luminaire	1

E28.2.3 Specialty Tools

- (a) The Contractor shall provide all specialty tools recommended by the equipment manufacturers required to service the equipment procured under this RFP.

E28.3 Execution

- E28.3.1** The Consumable and Spare Parts listed herein and any specialty tools shall be delivered to the WEWPCC staff in advance of Commissioning of the Effluent Monitoring Station.

E28.4 Measurement and Payment

- E28.4.1** **E1.4.1** Payment for the supply and delivery of all items described herein will be paid out at the lump sum value for Spare Parts upon approval by the Contract Administrator.