



THE CITY OF WINNIPEG

BID OPPORTUNITY

BID OPPORTUNITY NO. 480-2007

**PERIMETER ROAD PUMPING STATION UPGRADES – CONTRACT B - BUILDING
UPGRADES**

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PART B - BIDDING PROCEDURES

B1. CONTRACT TITLE

B1.1 PERIMETER ROAD PUMPING STATION UPGRADES – CONTRACT B - BUILDING UPGRADES

B2. SUBMISSION DEADLINE

B2.1 The Submission Deadline is 12:00 noon Winnipeg time, January 23, 2008.

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, located at 6821 Wilkes Avenue, from 9:00 to 12:00 noon on January 8, 2008 and from 9:00 to 12:00 noon on January 14, 2008 to provide Bidders access to the Site.

B3.2 The Bidder is advised that Access to the Perimeter Road Pumping Station is restricted and will not be available outside the time noted above.

B3.3 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 D5.1.

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. ADDENDA

B5.1 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.

B5.2 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.

- B5.2.1 Addenda will be available on the Bid Opportunities page at The City of Winnipeg, Corporate Finance, Materials Management Branch internet site at <http://www.winnipeg.ca/matmgt>.
- B5.2.2 The Bidder is responsible for ensuring that he has received all addenda and is advised to check the Materials Management Branch internet site for addenda regularly and shortly before the Submission Deadline, as may be amended by addendum.
- B5.3 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.

B6. SUBSTITUTES

- B6.1 The Work is based on the Plant, Materials and methods specified in the Bid Opportunity.
- B6.2 Substitutions shall not be allowed unless application has been made to and prior approval has been granted by the Contract Administrator in writing.
- B6.3 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.
- B6.4 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.
- B6.5 The Contract Administrator, after assessing the request for approval of a substitute, may in his 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.
- B6.6 The Contract Administrator will provide a response in writing, at least two (2) Business Days prior to the Submission Deadline, only to the Bidder who requested approval of the substitute.
- B6.6.1 The Bidder requesting and obtaining the approval of a substitute shall be entirely responsible for disseminating information regarding the approval to any person or persons he wishes to inform.
- B6.7 If the Contract Administrator approves a substitute as an "approved equal", any Bidder may use the approved equal in place of the specified item.
- B6.8 If the Contract Administrator approves a substitute as an "approved alternative", any Bidder bidding that approved alternative may base his 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 B15.

B6.9 No later claim by the Contractor for an addition to the Total Bid Price because of any other changes in the Work necessitated by the use of an approved equal or an approved alternative will be considered.

B7. BID COMPONENTS

B7.1 The Bid shall consist of the following components:

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

B7.2 Further to B7.1, the Bidder should include the written correspondence from the Contract Administrator approving a substitute in accordance with B6.

B7.3 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.

B7.4 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.

B7.4.1 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.

B7.5 Bidders are advised not to include any information/literature except as requested in accordance with B7.1.

B7.6 Bidders are advised that inclusion of terms and conditions inconsistent with the Bid Opportunity document, including the General Conditions, may result in the Bid being determined to be non-responsive.

B7.7 Bids submitted by facsimile transmission (fax) or internet electronic mail (e-mail) will not be accepted.

B7.8 Bids shall be submitted to:

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

B8. BID

B8.1 The Bidder shall complete Form A: Bid, making all required entries.

B8.2 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 own name, his 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 own, the business name and the name of every partner or corporation who is the owner of such business name shall be inserted.

- B8.2.1 If a Bid is submitted jointly by two or more persons, each and all such persons shall identify themselves in accordance with B8.2.
- B8.3 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.
- B8.4 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 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 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.
- B8.4.1 The name and official capacity of all individuals signing Form A: Bid shall be printed below such signatures.
- B8.4.2 All signatures should be witnessed, except where a corporate seal has been affixed.
- B8.5 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.

B9. PRICES

- B9.1 The Bidder shall state the lump sum price in Canadian funds for the Work on Form B: Prices.
- B9.2 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. QUALIFICATION

- B10.1 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.
- B10.2 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 Branch internet site at <http://www.winnipeg.ca/matmgt>).
- B10.3 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);

B10.4 Further to B10.3(c), the Bidder shall, within three (3) 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 valid COR certification number under the Certificate of Recognition (COR) Program administered by the Manitoba Construction Safety Association or by the Manitoba Heavy Construction Association's Safety, Health and Environment Program; or
- (b) 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 Branch internet site at <http://www.winnipeg.ca/matmgt.>)

B10.5 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.

B10.6 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.

B11. BID SECURITY

B11.1 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.

B11.1.1 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.

B11.1.2 All signatures on bid securities shall be original, and shall be witnessed or sealed as required.

B11.2 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.

B11.2.1 Where the bid security provided by the successful Bidder is in the form of a certified cheque or draft pursuant to B11.1(c), it will be deposited and retained by the City as the performance security and no further submission is required.

B11.2.2 The City will not pay any interest on certified cheques or drafts furnished as bid security or subsequently retained as performance security.

B11.3 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.

B12. OPENING OF BIDS AND RELEASE OF INFORMATION

B12.1 Bids will be opened publicly, after the Submission Deadline has elapsed, in the office of the Corporate Finance Department, Materials Management Branch, or in such other office as may be designated by the Manager of Materials.

B12.1.1 Bidders or their representatives may attend.

B12.1.2 Bids determined by the Manager of Materials, or his designate, to not include the bid security specified in B11 will not be read out.

B12.2 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 Branch internet site at <http://www.winnipeg.ca/matmgt>.

B12.3 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 Branch internet site at <http://www.winnipeg.ca/matmgt>.

B12.4 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.

B13. IRREVOCABLE BID

B13.1 The Bid(s) submitted by the Bidder shall be irrevocable for the time period specified in Paragraph 11 of Form A: Bid.

B13.2 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.

B14. WITHDRAWAL OF BIDS

B14.1 A Bidder may withdraw his Bid without penalty by giving written notice to the Manager of Materials at any time prior to the Submission Deadline.

B14.1.1 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.

B14.1.2 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.

B14.1.3 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 B14.1.3(b), declare the Bid withdrawn.

B14.2 A Bidder who withdraws his Bid after the Submission Deadline but before his Bid has been released or has lapsed as provided for in B13.2 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.

B15. EVALUATION OF BIDS

B15.1 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 (pass/fail);
- (b) qualifications of the Bidder and the Subcontractors, if any, pursuant to B10 (pass/fail);
- (c) Total Bid Price;
- (d) economic analysis of any approved alternative pursuant to B6.

B15.2 Further to B15.1(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.

B15.3 Further to B15.1(b), the Award Authority shall reject any Bid submitted by a Bidder who does not demonstrate, in his Bid or in other information required to be submitted, that he is responsible and qualified.

B15.4 Further to B15.1(c), the Total Bid Price shall be the lump sum price shown on Form B: Prices.

B15.4.1 If there is any discrepancy between the lump sum price written in figures and the lump sum price written in words, the price written in words shall take precedence.

B16. AWARD OF CONTRACT

B16.1 The City will give notice of the award of the Contract or will give notice that no award will be made.

B16.2 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.

B16.2.1 Without limiting the generality of B16.2, 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.

B16.3 Subject to B16.2, 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.

B16.3.1 Following the award of contract, a Bidder will be provided with information related to the evaluation of his Bid upon written request to the Contract Administrator.

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 Branch internet site at <http://www.winnipeg.ca/matmgt>.
- 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 structural, mechanical and electrical upgrades to the Perimeter Road Pumping Station.

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

- (a) New stair well serving the dry well levels 100, 200, 300 and 400
- (b) New stair well serving the wet well level 300
- (c) Removal of ventilation fans and duct work
- (d) Supply and installation of mechanical heating and ventilation equipment
- (e) Replacement and servicing of identified valves
- (f) Replacement of identified pipe segments
- (g) Recoating of all piping and valves
- (h) Removal of diesel generator and associated equipment
- (i) Removal of buried diesel fuel tank
- (j) Supply and installation of natural gas generator, fuel piping, exhaust system and automatic transfer switch
- (k) Supply and installation of motor control center
- (l) Removal of lighting, cabling and conduit in wet well
- (m) Supply and installation of lighting and cabling in wet well
- (n) Supply and installation of fire alarm system
- (o) Removal of interior foam board insulation
- (p) Supply and installation of exterior below grade insulation

D3. CHANGES IN WORK

D3.1 The City may deduct \$30,000.00 in addition to the amount stated in C7.5 for the work stated in Section 31 32 10 – Excavating, Trenching and Backfilling Clause 1.2.3.

D4. DEFINITIONS

D4.1 When used in this Bid Opportunity:

- (a) "AWWA" means American Waterworks Association
- (b) "CSA" means Canadian standard Association
- (c) "NSF" means National Sanitation Foundation
- (d) "ASTM" means American Society for Testing and Materials; and
- (e) "PCCP" means Prestressed Concrete Cylinder Pipe
- (f) "PRPS" means Perimeter Road Pumping Station
- (g) "ASME" means American Society of Mechanical Engineers

- (h) "ANSI" means American National Standards Institute
- (i) "NACE" means National Association of Corrosion Engineers
- (j) "SSPC" means Society for Protective Coatings
- (k) "SPMDD" means Standard Proctor Maximum Dry Density
- (l) "NEMA" means National Electrical Manufacturer's Association
- (m) "IP" means International Protection Rating
- (n) "PCP" means Pest Control Products

D5. CONTRACT ADMINISTRATOR

D5.1 The Contract Administrator is UMA Engineering Ltd., represented by:

Blair Moore, P.Eng.
Senior Electrical Engineer
1479 Buffalo Place, Winnipeg Manitoba, R3T 1L7
Telephone No. (204) 284-0580
Facsimile No. (204) 475-3646

D5.2 At the pre-construction meeting, Mr. Moore will identify additional personnel representing the Contract Administrator and their respective roles and responsibilities for the Work.

D6. CONTRACTOR'S SUPERVISOR

D6.1 At the pre-construction meeting, the Contractor shall identify his designated supervisor and any additional personnel representing the Contractor and their respective roles and responsibilities for the Work.

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 address or facsimile number identified in D5.1.

D7.3 All notices of appeal to the Chief Administrative Officer shall be sent to the following address or facsimile number:

The City of Winnipeg
Chief Administrative Officer Secretariat
Attn: Chief Administrative Officer
Administration Building, 3rd Floor
510 Main Street
Winnipeg MB R3B 1B9
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 address or facsimile number:

The City of Winnipeg
Corporate Services Department
Legal Services Division

Attn: City Solicitor
185 King Street, 3rd Floor
Winnipeg MB R3B 1J1
Facsimile No.: (204) 947-9155

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 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 Branch internet site at <http://www.winnipeg.ca/matmgt>.

D11. INSURANCE

- D11.1 The Contractor shall provide and maintain the following insurance coverage:
- (a) commercial general liability insurance, in the amount of at least two million dollars (\$2,000,000.00) inclusive, with The City of Winnipeg added as an additional insured, with a cross-liability clause, such liability policy to also contain contractual liability, unlicensed motor vehicle liability, non-owned automobile liability and products and completed operations, to remain in place at all times during the performance of the Work and throughout the warranty period;
 - (b) automobile liability insurance for owned automobiles used for or in connection with the Work in the amount of at least two million dollars (\$2,000,000.00) at all times during the performance of the Work and until the date of Total Performance;
 - (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 Total 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 fifteen (15) Calendar Days prior written notice to the Contract Administrator.

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 Bid was not a certified cheque or draft pursuant to B11.1(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. DETAILED PRICES

D13.1 The Contractor shall provide the Contract Administrator with a detailed price breakdown (Form I: Detailed Prices) 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.

D13.2 The Contractor shall state a price for each item or sub-item of the Work identified on Form I: Detailed Prices. The detailed prices must be consistent with the price(s) provided in the Contractor's Bid.

D14. SUBCONTRACTOR LIST

D14.1 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 C4.1 for the return of the executed Contract.

D15. DETAILED WORK SCHEDULE

D15.1 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.

D15.2 The detailed work schedule shall consist of the following:

- (a) a critical path method (C.P.M.) schedule for the Work;
- (b) a Gantt chart for the Work based on the C.P.M. schedule; and
- (c) a daily manpower schedule for the Work

all acceptable to the Contract Administrator.

D15.3 Further to D15.2(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:

- (a) Construction of Wet Well Stair
- (b) Construction of Dry Well Stair
- (c) Installation of exterior insulation
- (d) Installation of mechanical ventilation equipment
- (e) Installation and repair of valves and P2 suction reducer
- (f) Pipe re-coating
- (g) Installation of generator
- (h) Installation of electrical equipment
- (i) Commissioning

D15.4 Further to D15.2(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.

D15.5 Further to D15.2(c), the daily manpower schedule shall list the daily number of individuals on the Site for each trade.

SCHEDULE OF WORK

D16. COMMENCEMENT

D16.1 The Contractor shall not commence any Work until he is in receipt of a letter of intent from the Award Authority authorizing the commencement of the Work.

D16.2 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 detailed prices specified in D13;
 - (vii) the Subcontractor list specified in D14;
 - (viii) the detailed work schedule specified in D15; and
- (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.

D17. SCHEDULE RESTRICTIONS

D17.1 Perimeter Road Pumping Station shutdown periods are scheduled based on a number of factors including routine maintenance and repair work, sewerage flows and weather. The Charleswood Interceptor system has limited capacity to store sewerage and extraneous flows. Shutdowns can only be scheduled during periods where risk of wet weather flows and system infiltration is at a minimum, typically late fall and winter. Furthermore, shutdowns of the Perimeter Road Pumping Station can only be conducted when system flows are an absolute minimum, typically between 10:00 pm and 06:00 am. The City shall endeavour to make the

specified time periods available to the Contractor to schedule his Work requiring shutdown of the PRPS, without limiting the City's control over the operation of the forcemains to complete other work, maintain adequate system service and maintain the integrity of the infrastructure. The City shall reserve the right to cancel and/or delay these schedule dates at any time, due to any circumstances that could adversely affect system operation, including but not limited to high river levels, abnormal system inflows, abnormal weather, failure of related sewerage system components and/or security concerns.

- D17.2 The Contractor shall provide a minimum of five (5) Working Days notice to the Contract Administrator, in writing, of requiring a shutdown. The City will endeavour to schedule the shutdown as requested, pursuant to D17.1.
- D17.3 Further to D17.1, each PRPS shutdown is limited to a maximum of six (6) hours, measured from the completion PRPS removal from service by City forces to turn over of system back to the City of Winnipeg for the restoration of PRPS operation. Shutdowns must be scheduled between the hours of 10:00 pm and 06:00 am. At all times, the Contractor shall be prepared to re-assemble any piping such that PRPS can be placed back in service, within two (2) hours of receiving notification of same.
- D17.4 Further to D17.1 and D17.3 shutdowns will be allowed between November 1 and March 15. Summer shutdowns between June 1 and November 1 may or may not be allowed depending on weather and flow conditions. If a summer shutdown is allowed it is limited to Work that can be immediately stopped and the station put back into service within 20 minutes of notice.
- D17.3 The Work involves the scheduling of several station shutdowns. The following table summarizes the Work items that will require station shutdowns and the restrictions for each item.

Work Item	Schedule Restrictions
Rebuild Pump 1 knife gate valve	<ul style="list-style-type: none"> • Pumps 2 and 4 must be in service. • Work performed between November 1 and March 15. • During plant shutdown remove valve and install blind flange on distribution header. • Station is placed back in service. • Service valve offsite. • During plant shutdown remove blind flange and install rebuilt valve. • Station placed back in service.
Pump 2 Suction reducer	<ul style="list-style-type: none"> • Pumps P1 and P4 must be in service. • Work performed between November 1 and March 15. • During plant shutdown remove and replace suction reducer. • Station is placed back in service. • Have on-site a blind flange to blank off suction to enable the station to be placed into service if required.
Rebuild Pump 2 knife gate valve	<ul style="list-style-type: none"> • Pumps P1 and P4 must be in service. • Work performed between November 1 and March 15 • During plant shutdown remove valve and install blind flange on distribution header • Station placed back in service • Service valve offsite.

	<ul style="list-style-type: none"> • During plant shutdown remove blind flange and install rebuilt valve. • Station placed back in service.
Replace Pump 2 Discharge Valve	<ul style="list-style-type: none"> • Pumps P1 and P4 must be in service. • Work performed between November 1 and March 15. • Close Pump 2 inlet and discharge knife gate valve • Replace valve and reconnect piping • Station shutdown NOT required • Work must be completed within 2 Working Days
Wet Well Chamber 1 Ventilation Duct Replacement	<ul style="list-style-type: none"> • Work performed between November 1 and March 15. • Work will require the isolation of wet well chamber. By closing sluice gate • Work can only be conducted between 10 pm and 6:00 am. • If plant flows exceed the capacity of the remaining operational pumps, or in the event of a pump failure, the Work in the wet well shall be secured and the wet well shall be evacuated within 30 minutes of notice. • Cannot be concurrent with Wet Well Chamber 2 Ventilation Duct Replacement
Wet Well Chamber 2 Ventilation Duct Replacement	<ul style="list-style-type: none"> • Work performed between November 1 and March 15. • Work will require the isolation of pump chamber. • Work can only be conducted between 10:00 pm and 6:00 am. • If plant flows exceed the capacity of the remaining operational pumps, or in the event of a pump failure, the Work in the wet well shall be secured and the wet well shall be evacuated within 30 minutes of notice. • Cannot be concurrent with Wet Well Chamber 1 Ventilation Duct Replacement
Generator Tie-In	<ul style="list-style-type: none"> • Work performed between November 1 and March 15. • Existing generator shall remain operational until switchover. • During plant shutdown tie-in new automatic transfer switch to existing standby power MCC. • Station placed back in service.

D18. CRITICAL STAGES

D18.1 The Contractor shall achieve critical stages of the Work in accordance with the following requirements:

- (a) Completion of Works associated with PRPS shutdown within four (4) hours as described in D17.3.

D19. SUBSTANTIAL PERFORMANCE

D19.1 The Contractor shall achieve Substantial Performance by January 31, 2009.

D19.2 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.

- D19.3 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.

D20. TOTAL PERFORMANCE

- D20.1 The Contractor shall achieve Total Performance by February 28, 2009.
- D20.2 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.
- D20.3 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.

D21. LIQUIDATED DAMAGES

- D21.1 If the Contractor fails to achieve critical stages, Substantial Performance or Total Performance in accordance with the Contract by the days fixed herein for same, the Contractor shall pay the City the following amounts per Working Day for each and every Working Day following the days fixed herein for same during which such failure continues:
- (a) Critical Stage – Completion of Works associated with PRPS shutdown within six (6) hours as described in D17.3 – Two Thousand dollars (\$2,000.00) per hour;
 - (b) Substantial Performance – One Thousand Five Hundred dollars (\$1,500.00) per day;
 - (c) Total Performance – Five Hundred dollars (\$500.00) per day.
- D21.2 The amounts specified for liquidated damages in D21.1 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.
- D21.3 The City may reduce any payment to the Contractor by the amount of any liquidated damages assessed.

CONTROL OF WORK

D22. JOB MEETINGS

- D22.1 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, one representative of the City and one representative of the Contractor. 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.
- D22.2 The Contract Administrator reserves the right to cancel any job meeting or call additional job meetings whenever he deems it necessary.

D23. COORDINATION WITH OTHERS

- D23.1 The Contractor shall not have exclusive use of the Site. A separate Contract - Bid Opportunity 481-2007 Perimeter Road Pumping Station Upgrades – Contract A Forcemain Twinning is

currently under construction and will continue during the same time period as this project. This project includes excavation and shoring for forcemain connections to the PRPS in the vicinity of the Wet Well stair. The Bidder shall coordinate site activities with this work.

D23.2 The Contractor shall accommodate work by City Forces or third party Contractors related to ongoing operation and maintenance of the PRPS and sewerage systems. Vehicular access to PRPS must be maintained at all times.

D24. PRIME CONTRACTOR – THE WORKPLACE SAFETY AND HEALTH ACT (MANITOBA)

D24.1 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).

MEASUREMENT AND PAYMENT

D25. PAYMENT

D25.1 Further to C12, effective January 1, 2007 the City may at its option pay the Contractor by direct deposit to the Contractor's banking institution.

D26. CASH ALLOWANCE

D26.1 Cash allowances shall cover the net cost to the Contractor of services, products, construction machinery and equipment, freight, unloading, handling, storage, installation and other expenses incurred in construction of provisional work.

D26.2 Provisional work shall not be undertaken unless the Contractor is notified, in writing, by the Contract Administrator.

D26.3 The City reserves the right to delete any or all of the Cash Allowance from the Contract if the work intended to be covered by the Cash Allowance is not required, or if the Works intended are found to be more extensive than the provisional Cash Allowance.

D26.4 Valuation of provisional work will be by the methods outlined in the General Conditions clause C7.4.

WARRANTY

D27. WARRANTY

D27.1 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.

D27.2 For the purpose of Performance Security, the warranty period shall be one (1) year.

D27.3 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.

D27.4 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 dated the

_____ day of _____, 20____, for:

BID OPPORTUNITY NO. 480-2007

PERIMETER ROAD PUMPING STATION UPGRADES – CONTRACT B - BUILDING UPGRADES

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)

(Name of Principal)

Per: _____ (Seal)

Per: _____

(Name of Surety)

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

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 (1993 Revision), International Chamber of Commerce Publication Number 500.

(Name of bank or financial institution)

Per: _____
(Authorized Signing Officer)

Per: _____
(Authorized Signing Officer)

FORM I: DETAILED PRICES
 (See D13)

PERIMETER ROAD PUMPING STATION UPGRADES – CONTRACT B - BUILDING UPGRADES

ITEM NO.	DESCRIPTION	SPEC. REF.	UNIT	APPROX. QUANTITY	UNIT PRICE	AMOUNT
1.	Dry well stair construction		1	Lot		
2.	Wet well stair construction		1	Lot		
3.	Removal of interior insulation		1	Lot		
4.	Supply and installation of exterior insulation system		1	Lot		
5.	Removal of ventilation equipment and ducting		1	Lot		
6.	Supply and installation of HVAC equipment		1	Lot		
7.	Recoating of piping, valves, and fittings		1	Lot		
8.	Supply and installation and servicing of valves		1	Lot		
9.	Removal of generator and fuel tank		1	Lot		
10.	Supply and installation of generator and automatic transfer switch		1	Lot		
11.	Supply and installation of electrical equipment		1	Lot		
12.	Supply and installation of instrumentation		1	Lot		
13.	Supply and installation of fire alarm system		1	Lot		
14.	Operation and Maintenance Manuals		1	Lot		
15.						
16.						
17.						
18.						
19.						
20.						
21.						
22.						
23.						
24.						
25.						

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 Branch internet site at <http://www.winnipeg.ca/matmgt>.

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>Section</u>	<u>Title</u>
Section 02066	Contaminated Soils
Section 013300	Submittal Procedures
Section 017800	Closeout Submittals
Section 017900	Demonstration and Training
Section 019100	Commissioning
Section 024117	Structure Demolition – Short Form
Section 026133	Hazardous Materials
Section 026500	Underground Storage Tank Removal
Section 028212	Asbestos Abatement – Maximum Precautions
Section 031000	Concrete Forming and Accessories
Section 032000	Concrete Reinforcing
Section 033000	Cast-In-Place Concrete
Section 034100	Precast Structural Concrete
Section 040510	Common Work Results for Masonry
Section 040512	Masonry Mortar and Grout
Section 040519	Masonry Anchorage and Reinforcing
Section 040523	Masonry Accessories
Section 042113	Brick Masonry
Section 042200	Concrete Unit Masonry
Section 051223	Structural Steel for Buildings
Section 055000	Metal Fabrications
Section 055129	Metal Stairs and Ladders
Section 061011	Rough Carpentry – Short Form
Section 072113	Board Insulation
Section 072710	Air Barriers – Descriptive or Proprietary
Section 075200	Modified Bituminous Membrane Roofing
Section 076200	Sheet Metal Flashing and Trim
Section 078400	Firestopping
Section 079210	Joint Sealing
Section 081114	Metal Doors and Frames
Section 087110	Door Hardware – General
Section 088050	Glazing
Section 099113	Exterior Painting
Section 099123	Interior Painting
Section 210720	Thermal Insulation for Piping
Section 224201	Plumbing Specialties and Accessories
Section 224202	Valves Replacement and Repairs

Section 230505	Installation of Pipework
Section 230513	Common Motor Requirements for HVAC Equipment
Section 230517	Pipe Welding
Section 230529	Hangers and Supports for HVAC Piping and Equipment
Section 230554	Mechanical Identification
Section 230593	Testing, Adjusting and Balancing for HVAC
Section 230801	Performance Verification Mechanical Piping Systems
Section 230802	Cleaning and Start-up of Mechanical Piping Systems
Section 230933	Control System for HVAC
Section 231123	Facility Natural Gas Piping
Section 233114	Metal Ducts – Low Pressure to 500 PA
Section 233300	Air Duct Accessories
Section 233314	Dampers – Balancing
Section 233315	Dampers – Operating
Section 233316	Dampers – Fire and Smoke
Section 233425	Packaged Roof and Wall Exhausters
Section 233713	Diffusers, Registers and Grilles
Section 233720	Louvres, Intakes and Vents
Section 234100	Particulate Air Filtration
Section 237400	Packaged Outdoor HVAC Equipment
Section 260500	Common Work Results – For Electrical
Section 260520	Wire and Box Connectors 0-1000V
Section 260521	Wires and Cables (0-1000V)
Section 260528	Grounding – Secondary
Section 260529	Hangers and Supports for Electrical Systems
Section 260531	Splitters, Junction, Pull Boxes and Cabinets
Section 260532	Outlet Boxes, Conduit Boxes and Fittings
Section 260534	Conduits, Conduit Fastenings and Conduit Fittings
Section 261217	Dry Type Transformers Up to 600V Primary
Section 262417	Panelboards Breaker Type
Section 262419	Motor Control Centres
Section 262726	Wiring Devices
Section 262821	Moulded Case Circuit Breakers
Section 262823	Disconnect Switches – Fused and Non-Fused
Section 262910	Motor Starters to 600 V
Section 262920	Variable Frequency Drives
Section 263214	Power Generation Natural Gas
Section 263623	Automatic Transfer Switches
Section 265201	Unit Equipment for Emergency Lighting
Section 265300	Exit Lights
Section 283102	Multiplex Fire Alarm System
Section 290500	Common Work – Instrumentation and Control
Section 291001	Enclosures
Section 291501	Instrumentation Cable
Section 292001	Instrument Air Supply and Transmission
Section 292501	Transmitters and Indicators
Section 293001	Switches and Relays
Section 293011	Miscellaneous Panel Devices
Section 294001	Control and Operator Interface Requirements
Section 294011	DCS I/O Index
Section 295001	Instrumentation Specification Sheets
Section 310517	Aggregate Materials
Section 312310	Excavating, Trenching and Backfilling
Section 316323	Bored Concrete Piles
Section 334621	Foundation and Underslab Drainage

N/A

	Drawing List and Title Page
1-0111L-A0001 Sht 001	Architectural – New Construction SITE PLAN
1-0111L-A0002 Sht 001	Architectural – New Construction LEVEL 100 FLOOR PLAN
1-0111L-A0003 Sht 001	Architectural – New Construction LEVEL 200 FLOOR PLAN
1-0111L-A0004 Sht 001	Architectural – New Construction LEVEL 300 FLOOR PLAN
1-0111L-A0005 Sht 001	Architectural – New Construction LEVEL 400 FLOOR PLAN
1-0111L-A0006 Sht 001	Architectural – New Construction ROOF LEVEL PLAN
1-0111L-A0007 Sht 001	Architectural – New Construction BUILDING SECTION
1-0111L-A0008 Sht 001	Architectural – New Construction BUILDING SECTION & SCHEDULES
1-0111L-A0009 Sht 001	Architectural – New Construction STAIR SECTION & PLANS
1-0111L-A0010 Sht 001	Architectural – New Construction STAIR PLANS & SECTION DETAILS
1-0111L-A0011 Sht 001	Architectural – New Construction BUILDING ELEVATIONS
1-0111L-A0012 Sht 001	Architectural – New Construction BUILDING ELEVATIONS
1-0111L-A0013 Sht 001	Architectural – Demolition LEVEL 100 & LEVEL 200 FLOOR PLANS
1-0111L-A0014 Sht 001	Architectural – Demolition LEVEL 300 FLOOR PLAN
1-0111L-A0014 Sht 002	Architectural – Demolition LEVEL 400 FLOOR PLAN
1-0111L-S0001 Sht 001	Structural Overall Roof Plan
1-0111L-S0002 Sht 001	Structural – South Stair Level 300 Plan, Sections & Details
1-0111L-S0003 Sht 001	Structural – South Stair Section
1-0111L-S0004 Sht 001	Structural – South Stair Level 400 Plan, and Sections
1-0111L-S0005 Sht 001	Structural – South Stair Roof Plan, Sections & Details
1-0111L-S0006 Sht 001	Structural – East Stair Level 100 Plan and Sections
1-0111L-S0007 Sht 001	Structural – East Stair Plans, Sections & Details
1-0111L-S0008 Sht 001	Structural – East Stair Level 400 Plan and Sections
1-0111L-S0009 Sht 001	Structural – East Stair Roof Plan, Sections & Details
1-0111L-S0010 Sht 001	Structural – New Construction LEVEL 200 FLOOR PLAN
1-0111L-S0011 Sht 001	Structural – New Construction LEVEL 300 FLOOR PLAN
1-0111L-S0012 Sht 001	Structural – New Construction LEVEL 400 FLOOR PLAN
1-0111L-S0013 Sht 001	Structural – Aluminum Hatch Modifications
1-0111L-P0001 Sht 001	Process and Instrumentation Legend and Details
1-0111L-P0002 Sht 001	Process and Instrumentation Symbols Legend
1-0111L-P0003 Sht 001	Process and Instrumentation Symbols Legend
1-0111L-P0004 Sht 001	Process and Instrumentation HVAC
1-0111L-P0005 Sht 001	Process and Instrumentation HVAC
1-0111L-P0006 Sht 001	Process and Instrumentation Generator Room Cooling
1-0111L-M0001 Sht 001	Mechanical GENERAL NOTES AND LEGEND
1-0111L-M0002 Sht 001	Mechanical – DEMOLITION LEVEL 100 FLOOR PLAN
1-0111L-M0003 Sht 001	Mechanical – DEMOLITION LEVEL 200 FLOOR PLAN
1-0111L-M0004 Sht 001	Mechanical – DEMOLITION LEVEL 300 FLOOR PLAN
1-0111L-M0005 Sht 001	Mechanical – DEMOLITION LEVEL 400 FLOOR PLAN
1-0111L-M0006 Sht 001	Mechanical ROOF PLAN
1-0111L-M0007 Sht 001	Mechanical – New Construction LEVEL 100 FLOOR PLAN
1-0111L-M0008 Sht 001	Mechanical – New Construction LEVEL 200 FLOOR PLAN
1-0111L-M0009 Sht 001	Mechanical – New Construction LEVEL 300 FLOOR PLAN
1-0111L-M0010 Sht 001	Mechanical – New Construction LEVEL 400 FLOOR PLAN
1-0111L-M0011 Sht 001	Mechanical – New Construction SECTION
1-0111L-M0012 Sht 001	Mechanical – New Construction Elevations, Sections and Details
1-0111L-E0001 Sht 001	Electrical Symbols Legend
1-0111L-E0001 Sht 002	Electrical Symbols Legend
1-0111L-E0002 Sht 001	Electrical Single Line Diagram
1-0111L-E0003 Sht 001	Electrical Panel Schedule and MCC Elevation
1-0111L-E0004 Sht 001	Electrical Single Line Diagram – Demolitions
1-0111L-E0005 Sht 001	Electrical – Demolition LEVEL 200, 300, 400 & ROOF
1-0111L-E0006 Sht 001	Electrical – Power Layout LEVEL 400 FLOOR PLAN
1-0111L-E0007 Sht 001	Electrical – Lighting Layout LEVEL 100 FLOOR PLAN
1-0111L-E0008 Sht 001	Electrical – Lighting Layout LEVEL 200 FLOOR PLAN
1-0111L-E0009 Sht 001	Electrical – Lighting Layout LEVEL 300 FLOOR PLAN
1-0111L-E0010 Sht 001	Electrical – Lighting Layout LEVEL 400 FLOOR PLAN
1-0111L-E0011 Sht 001	Electrical – Emergency Systems LEVEL 100 FLOOR PLAN

1-0111L-E0012 Sht 001	Electrical – Emergency Systems LEVEL 200 FLOOR PLAN
1-0111L-E0013 Sht 001	Electrical – Emergency Systems LEVEL 300 FLOOR PLAN
1-0111L-E0014 Sht 001	Electrical – Emergency Systems LEVEL 400 FLOOR PLAN
1-0111L-E0015 Sht 001	Electrical – Instrument Loop Diagrams HVAC
1-0111L-E0015 Sht 002	Electrical – Instrument Loop Diagrams HVAC

E2. SOILS INVESTIGATION REPORT

- E2.1 Further to C:3.1, the geotechnical report is provided to aid the Contractor's evaluation of the existing soil conditions. The geotechnical report is contained in Appendix 'A'.

GENERAL REQUIREMENTS

E3. OFFICE FACILITIES

- E3.1 The Contractor shall supply office facilities for the Contract Administrator meeting the following requirements:
- (a) The field office shall be conveniently located near the Site of the Work;
 - (b) The building shall have a minimum floor area of 20 square metres, with window area of 3 square metres and a door entrance with suitable lock satisfactory to the Contract Administrator.
 - (c) The building shall be suitable for all-weather use. It shall be capable of maintaining a temperature range between 16°C and 25°C;
 - (d) The building shall be supplied with adequate lighting and 120 Volt power supply;
 - (e) The building shall be furnished with one desk, one meeting table, one drafting table, one filing cabinet and six chairs, all satisfactory to the Contract Administrator;
 - (f) The field office shall be cleaned weekly immediately prior to the Job Site Meetings to the satisfaction of the Contract Administrator;
 - (g) The provision of the field office with the aforementioned furnishings and equipment shall also include maintenance and removal of the field office, operating costs and any service installation costs.
- E3.2 The Contractor shall supply construction power and communications connections for telephone and internet.

E4. SANITATION FACILITY

- E4.1 Portable toilets may be provided by the Contractor. Any portable toilet shall be cleaned on a weekly basis and provided with regular maintenance as required to ensure proper operation.
- E4.2 Portable toilets shall be located in an area acceptable to the Contract Administrator.

E5. WASTE CONTAINER

- E5.1 A waste container to dispose of garbage produced from the site shall be provided by the Contractor. It shall be located in a safe, convenient location, and be emptied as necessary by the Contractor. The provision, maintenance and removal of a waste container shall be considered a subsidiary obligation of the Contractor

E6. ENVIRONMENTAL PROTECTION

- E6.1 The Contractor shall plan and implement the Work of this Contract strictly in accordance with the requirements of the environmental protection measures as herein specified.

- E6.2 The Contractor is advised that at least the following Acts, Regulations, and By-laws apply to the Work:
- E6.2.1 Federal
- (a) Canadian Environmental Protection Act (CEPA) c.16
 - (b) Transportation of Dangerous Goods Act and Regulations c.34
- E6.2.2 Provincial
- (a) The Dangerous Goods Handling and Transportation Act D12
 - (b) The Endangered Species Act E111
 - (c) The Environment Act c.E125
 - (d) The Fire Prevention Act F80
 - (e) The Manitoba Nuisance Act N120
 - (f) The Public Health Act c.P210
 - (g) The Workplace Safety and Health Act W120
 - (h) Current applicable associated regulations.
 - (i) The Fisheries Act
 - (j) The Migratory Birds Act
 - (k) The Historic Resources Act
 - (l) Drinking Water Safety Act
- E6.2.3 Waste Handling and Disposal
- (a) The construction area shall be kept clean and orderly at all times during and at completion of construction.
 - (b) At no time during construction shall personal or construction waste be permitted to accumulate for more than one day at any location on the construction site, other than at a dedicated storage area as may be approved by the Contract Administrator.
 - (c) Indiscriminate dumping, littering, or abandonment shall not take place.
 - (d) No on-site burning of waste is permitted.
 - (e) Equipment shall not be cleaned within thirty (30) m of watercourses; contaminated water from onshore cleaning operations shall not be permitted to enter watercourses.
- E6.2.4 Dangerous Goods/Hazardous Waste Handling and Disposal
- (a) Dangerous goods/hazardous waste are identified by, and shall be handled according to, The Dangerous Goods Handling and Transportation Act and Regulations.
 - (b) The Contractor shall be familiar with The Dangerous Goods Handling and Transportation Act and Regulations and meet training requirements for these Regulations.
- E6.2.5 Emergency Spill Response
- (a) The Contractor shall ensure that due care and caution is taken to prevent spills.
 - (b) The Contractor shall report all major spills of petroleum products or other hazardous substances with the potential for impacting the environment and threat to human health and safety to the Contract Administrator and Manitoba Conservation, immediately after occurrence of the environmental accident, by calling the 24-hour emergency telephone phone number (204) 945-4888.
 - (c) The Contractor shall designate a qualified supervisor as the on-site emergency response coordinator for the project. The emergency response coordinator shall have the authority to redirect manpower in order to respond in the event of a spill. (Should include reference to a site-specific Emergency Response Plan and Environmental Protection Plan.)

- (d) The following actions shall be taken by the person in charge of the spilled material or the first person(s) arriving at the scene of a hazardous material accident or the onsite emergency response coordinator:
- (i) Notify emergency-response coordinator of the accident:
 - ◆ identify exact location and time of accident-
 - ◆ indicate injuries, if any
 - ◆ request assistance as required by magnitude of accident Manitoba Conservation 24-hour Spill Response Line (204) 945-4888, RCMP (911), City of Winnipeg Fire Department (911), Ambulance (911), company backup, contact Contract Administrator.
 - (ii) Assess situation and gather information on the status of the situation, noting:
 - ◆ personnel on site
 - ◆ cause and effect of spill
 - ◆ estimated extent of damage
 - ◆ amount and type of material involved
 - ◆ proximity to waterways
 - (iii) If safe to do so, try to stop the dispersion or flow of spill material:
 - ◆ approach from upwind
 - ◆ stop or reduce leak if safe to do so
 - ◆ dyke spill material with dry, inert sorbent material or dry clay soil or sand
 - ◆ prevent spill material from entering waterways and utilities by dyking
 - ◆ prevent spill material from entering manholes and other openings by covering with rubber spill mats or dyking
 - (iv) Resume any effective action to contain, clean up, or stop the flow of the spilled product.

E6.3 The emergency response coordinator shall ensure that all environmental accidents involving contaminants shall be documented and reported to the Manitoba Conservation according to The Dangerous Goods Handling and Transportation Act Environmental Accident Report Regulation 439/87.

E7. SITE RESTORATION

E7.1 The Contractor shall remove the temporary Site office and storage facilities prior to Total Performance.

E7.2 The Contractor will be responsible for grounds restoration, as determined necessary by the Contract Administrator.

E7.3 The Contractor will be responsible for any damage caused by his forces on roadways or accesses.

E8. RECORD DRAWINGS

E8.1 The Contractor shall keep one (1) complete set of white prints at their Site office, including all Addenda, Change Orders, Field Instructions, and other revisions for the purposes of Record Drawings. As the Work proceeds, the Contractor shall clearly record in red pencil all as-built conditions which deviate from the original Contract documents.

E8.2 The Record Drawings shall be available for review by the Contract Administrator upon request at any time during the performance of the Work.

E8.3 Prior to achieving Substantial Performance, the Contractor shall submit the Record Drawings prepared to the Contract Administrator for his review and use. If, in the opinion of the Contract Administrator, the Record Drawings are incomplete or inaccurate, the Record Drawings will be returned to the Contractor and the Contractor shall revise and resubmit the Record Drawings at his cost.

E8.4 Substantial Performance cannot be achieved without the submission of Record Drawings that are acceptable to the Contract Administrator.

E9. MATERIAL SAFETY DATA SHEETS

E9.1 The Contractor shall provide the Contract Administrator with one (1) copy of Material Safety Data Sheets (MSDS's) for all products to be used in the performance of the Work at least two (2) Business Days prior to bringing such materials to Site or as otherwise specified in the Contract Documents.

E9.2 Throughout the term of the Contract, the Contractor shall provide the Contract Administrator with revisions or updates of the MSDS's as soon as may be reasonably possible.

E10. CASH ALLOWANCE

E10.1 Description

(a) The Cash Allowance is intended to be used for groundwater depressurization, if required as specified in Section 31 32 10 – Excavating, Trenching and Backfilling Clause 1.2.3

(b) The City reserves the right to delete any or all of the Cash Allowance from the Contract if the Work intended to be covered by the Cash Allowance is not required, or if the Works intended are found to be more extensive than the provisional Cash Allowance.

E10.2 Method of Measurement and Basis of Payment

(a) Cost of authorized repairs shall be evaluated by the methods outlined in C7.4, and a Change Order prepared by the Contract Administrator. Cost of the Change Order will be paid on the Progress Estimate and deducted from the Cash Allowance. If the valuation of the authorized Work exceeds the Value of the Cash Allowance, the Contract Value will be adjusted by the shortfall.

E11. SITE SAFETY

E11.1 Further to C6.24, the Contractor is advised that areas of the pump station including, but not limited to the wet well areas and comminutor areas, are considered confined entry locations.

E11.2 The Contractor is advised that the pumping station, piping and wet wells contain raw sewage. The Contractor shall ensure that all sewerage is handled in a safe manner and disposed of in an appropriate manner. The Contractor is further advised that the wet well may contain accumulated debris and sludge.

E11.3 The Contractor is advised that areas of the pumping station contain hazardous materials including asbestos. The Contractor shall ensure that all hazardous materials are handled appropriately and in accordance to Workplace Health and Safety regulations and guidelines

E11.4 No claim by the Contractor shall be made with respect to site access and work restrictions based on the above outlined conditions.