



THE CITY OF WINNIPEG

BID OPPORTUNITY

BID OPPORTUNITY NO. 21-2006

**WEST END WATER POLLUTION CONTROL CENTRE – BIOLOGICAL NUTRIENT
REMOVAL UPGRADE**



TABLE OF CONTENTS

PART A - BID SUBMISSION

Form A: Bid	1
Form B: Prices	4
Form G1: Bid Bond and Agreement to Bond	6
Form G2: Irrevocable Standby Letter of Credit and Undertaking	8

PART B - BIDDING PROCEDURES

B1. Project Title	1
B2. Submission Deadline	1
B3. Bidders' Conference	1
B4. Enquiries	1
B5. Addenda	2
B6. Substitutes	2
B7. Bid Submission	3
B8. Bid	3
B9. Prices	4
B10. Qualification	5
B11. Bid Security	6
B12. Opening of Bids and Release of Information	7
B13. Irrevocable Bid	7
B14. Withdrawal of Bids	7
B15. Evaluation of Bids	8
B16. Award of Contract	8

PART C - GENERAL CONDITIONS

C1. General Conditions	1
------------------------	---

PART D - SUPPLEMENTAL CONDITIONS

General

D1. General Conditions	1
D2. Scope of Work	1
D3. Contract Administrator	2
D4. Contractor's Supervisor	2
D5. Notices	2
D6. Furnishing of Documents	3

Submissions

D7. Safe Work Plan	3
D8. Insurance	3
D9. Performance Security	4
D10. Detailed Work Schedule	4

Schedule of Work

D11. Commencement	5
D12. Substantial Performance	5
D13. Total Performance	6
D14. Liquidated Damages	6

Control of Work

D15. Job Meetings	6
D16. Prime Contractor – The Workplace Safety and Health Act (Manitoba)	6

Measurement and Payment

D17. Payment Schedule	7
-----------------------	---

Warranty

D18. Warranty	7
Form H1: Performance Bond	8
Form H2: Irrevocable Standby Letter of Credit	10

PART E - SPECIFICATIONS

General

E1. Applicable Specifications, Standard Details and Drawings	1
--	---

PART B - BIDDING PROCEDURES

B1. PROJECT TITLE

- B1.1 WEST END WATER POLLUTION CONTROL CENTRE – BIOLOGICAL NUTRIENT REMOVAL UPGRADE

B2. SUBMISSION DEADLINE

- B2.1 The Submission Deadline is 12:00 noon Winnipeg time, June 1, 2006.
- B2.2 Bid Submissions 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. BIDDERS' CONFERENCE

- B3.1 Further to GC:3.1, the Contract Administrator will hold a Bidders' conference at the West End Water Pollution Control Centre from 9.00 AM to 12.00 noon on May 12, 2006.
- B3.2 The Bidder is advised that, at the Bidders' Conference, the Bidder's representatives are expected to print their company name and their own names and affix their signatures to the City's site visit sign-in sheet as evidence of their attendance.
- B3.3 The Bidder shall not be entitled to rely on any information or interpretation received at the Bidders' Conference unless that information or interpretation is provided by the Contract Administrator in writing.
- B3.4 If the Bidders require additional information or explanation relating to the Work, the Bidders shall apply for the same to the Contract Administrator in accordance with B4.
- B3.5 The Bidders shall be solely responsible for any errors, omissions or misunderstandings resulting from the Bidders' failure to make a thorough examination of the site and obtain such information.

B4. ENQUIRIES

- B4.1 All enquiries shall be directed to the Contract Administrator identified in D3.1.
- 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 shortly before submitting his Bid.
- 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 shall 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 SUBMISSION

- B7.1 The Bid Submission consists 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 All components of the Bid Submission 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 in ink, to constitute a responsive Bid.
- B7.3 The Bid Submission shall be submitted enclosed and sealed in an envelope clearly marked with the Bid Opportunity number and the Bidder's name and address.
- B7.3.1 Samples or other components of the Bid Submission 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 Submission.
- B7.4 Bid Submissions submitted by facsimile transmission (fax) or internet electronic mail (e-mail) will not be accepted.
- B7.5 Bid Submissions 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 shall be original and shall 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 Submission and the Contract, when awarded, shall be both joint and several.

B9. PRICES

B9.1 The Bidder shall state a price in Canadian funds for each item of the Work identified on Form B: Prices.

B9.1.1 Notwithstanding GC.12.2.3(c), the Price on Form B: Prices shall include the Manitoba Retail Sales Tax (MRST, also known as PST), except for the supply and installation of process equipment, for which MRST shall be extra.

B9.2 Unit Prices: Labour

B9.2.1 Form B: Prices includes a unit price for software configuration labour. This labour is to be provided by qualified experienced personnel employed by ABB Inc. on an "as required" basis. Labour will be utilized and authorized as required to assist City staff in the completion of software configuration referenced in Division 17. Labour will be paid for on an hourly basis as authorized by the Contract Administrator at the unit price listed in Form B: Prices.

B9.2.2 Form B: Prices includes unit prices (hourly rates) for Contract changes undertaken by specific trades. These unit rates are to include all mark-ups and MRST, and will be applied to authorized Contract changes (as required) by the Contract Administrator.

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;
- (b) be responsible and not be suspended, debarred or in default of any obligation to the City;
- (c) be financially capable of carrying out the terms of the Contract;
- (d) have all the necessary experience, capital, organization, and equipment to perform the Work in strict accordance with the terms and provisions of the Contract;
- (e) have successfully carried out work, similar in nature, scope and value to the Work;
- (f) employ only Subcontractors who:
 - (i) are responsible and not suspended, debarred or in default of any obligation 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>); and
 - (ii) have successfully carried out work similar in nature, scope and value to the portion of the Work proposed to be subcontracted to them, and are fully capable of performing the Work required to be done in accordance with the terms of the Contract;
- (g) have a written workplace safety and health program in accordance with The Workplace Safety and Health Act (Manitoba);
- (h) The City may require the Bidder to furnish evidence satisfactory to the City that the Bidder has the ability, experience, capital and plant required to undertake and perform the Work successfully, and complete in the time specified. The Bidder shall provide upon request a list of completed work, similar in scope and value in sufficient detail to demonstrate qualification to undertake this Work. The Bidder shall provide specific details of their experience, which will include size and weight of equipment as well as description of the works.
- (i) Where all or any portion or portions of the Work is to be subcontracted or done by anyone other than the successful Contractor, the name, address, and work to be subcontracted by each Subcontractor shall be stated upon request, and the contracts pertaining to the work subcontracted shall be subject to all the items and conditions in the Specification.
- (j) The Bidder shall also provide evidence and commit upon request, that all mechanical work and electrical and control work will be performed by certified journeymen and registered apprentices of their respective trades. Verification will be required by each tradesperson on the Site. This will be a requirement to be abided by all plumbers, steamfitters, millwrights and electricians. In addition, all mechanical and electrical Subcontractors will be required to abide by the journeyman to apprentice ratios as outlined in "The Apprenticeship and Tradesman's Qualification Act", typically three journeymen to one apprentice".
- (k) The Bidder shall be a firm normally engaged and fully competent in the type of work described in this section of the Specification. The firm shall have been continuously and successfully engaged in this business for at least five (5) years. The Bidder shall provide a list of similar projects recently completed and resumes of the instrumentation personnel, or Subcontractor, proposed for the project. The Bidder, or Subcontractor, is to be experienced in the process and instrument requirements of this Contract and to show that it maintains a fully equipped and qualified organization, capable of performing the present Work and of providing warranty service to the system after installation. The Bidder shall provide evidence of same upon request.

- (l) The Contractor shall perform all instrument hook-ups, calibrations and checkouts with qualified journeyman instrument mechanics who are familiar with the devices being installed and perform all control wiring installation and connections with qualified journeyman electricians. The Bidder shall provide evidence of same upon request.
- B10.2 Further to B10.1(g), 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 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 - Option 1 administered by the Manitoba Heavy Construction Association's Safety, Health and Environment Program; or
 - (b) a valid COR certification number under the Certificate of Recognition (COR) Program administered by the Manitoba Construction Safety Association; 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 Branch internet site at <http://www.winnipeg.ca/matmgt.>)
- B10.3 The Bidder shall be prepared to 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.
- B10.4 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.
- B11.2 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 Bid Submissions 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 Bid Submissions 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 After the public opening, the names of the Bidders and their Total Bid Prices as read out (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 Submission 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 GC:23.3, 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 shall:

- (a) retain the Bid Submission until after the Submission Deadline has elapsed;
- (b) open the Bid Submission 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 Submission is incomplete, obscure or conditional, or contains additions, deletions, alterations or other irregularities. The Award Authority may reject all or any part of any Bid, or waive technical requirements 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 Submission 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 sum of the unit prices shown on Form B: Prices.

B15.4.1 If there is any discrepancy between the Total Bid Price written in figures and the Total Bid 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 by way of a letter of intent, 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 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.

B16.4 The anticipated award date is July 21, 2006.

PART C - GENERAL CONDITIONS

C1. GENERAL CONDITIONS

C1.1 The *General Conditions for Construction Contracts* (Revision 2000 11 09) are applicable to the Work of the Contract.

C1.1.1 The *General Conditions for Construction Contracts* 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>.

PART D - SUPPLEMENTAL CONDITIONS

GENERAL

D1. GENERAL CONDITIONS

- D1.1 In addition to the *General Conditions for Construction Contracts*, these Supplemental Conditions are applicable to the Work of the Contract.
- D1.2 The General Conditions are amended by striking out "The City of Winnipeg Act" wherever it appears in the General Conditions and substituting "The City of Winnipeg Charter".
- D1.3 The General Conditions are amended by striking out "Tender Package" wherever it appears in the General Conditions and substituting "Bid Opportunity".
- D1.4 The General Conditions are amended by striking out "Tender Submission" wherever it appears in the General Conditions and substituting "Bid Submission".
- D1.5 The General Conditions are amended by deleting GC:6.16 and GC:6.17. The City of Winnipeg is now within the jurisdiction of the Manitoba Ombudsman pursuant to The Ombudsman Act.

D2. SCOPE OF WORK

- D2.1 The Work to be done under the Contract shall consist of the the labour, equipment, and materials required to complete the Effluent Disinfection Facility at the West End Water Pollution Control Centre in Winnipeg, Manitoba, all as specified in the Contract Documents.
- D2.2 The major components of the Work are as follows:
- (a) Construction of new structures with associated mechanical and electrical systems for:
 - (i) Two Dissolved Air Flotation (DAF) thickeners
 - (ii) Two polymer makeup systems
 - (iii) One ferric chloride storage and feed systems
 - (iv) Two primary sludge fermenters, complete with flat aluminum covers and attached common pump room
 - (v) One secondary clarifier, complete with mechanism and fibreglass dome cover
 - (vi) Odour control system, including a thermal oxidizer unit complete with supply and exhaust fans, ducting, controls, and all required accessories and appurtenances
 - (b) Renovation of two existing aeration tanks to reconfigure as biological nutrient removal bioreactors, including construction, supply, installation, testing, commissioning of:
 - (i) New internal concrete walls
 - (ii) Mixers, pumps, piping, and other mechanical devices as specified herein and shown on the Drawings
 - (iii) Off-loading, storage and installation of fine-bubble aeration diffuser system (supplied by City)
 - (iv) Construction of a new electrical room
 - (c) Replacement of mechanisms of two existing secondary clarifiers with new mechanisms, requiring partial or complete dismantling and reinstallation of existing dome covers.
 - (d) Upgrade, additions, and modifications to the electrical supply system and services as detailed in Division 16 Electrical Scope of Work.
 - (e) Upgrades and modifications to the distributed control system (DCS) to control new systems, including expanded control room.

- (f) Sitework and Site Utility Work associated with the new facilities and with the general Site.
- (g) Heating, Ventilation, and Air Conditioning (HVAC) systems.
- (h) Installation and operation of a groundwater pumping system as specified.
- (i) All other auxiliary equipment, structures, and systems required to complete the Work.

D3. CONTRACT ADMINISTRATOR

D3.1 The Contract Administrator is Earth Tech Canada Inc., represented by:

Eric Hutchison, P.Eng.
Project Manager
850 Pembina Highway, Winnipeg, MB, R3M 2T6
Telephone No. (204) 477-5381
Facsimile No. (204) 284-2040

D3.2 At the pre-construction meeting, the Contract Administrator will identify additional personnel representing the Contract Administrator and their respective roles and responsibilities for the Work.

D4. CONTRACTOR'S SUPERVISOR

D4.1 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.

D5. NOTICES

D5.1 Except as provided for in GC:23.2.2, 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.

D5.2 All notices, requests, nominations, proposals, consents, approvals, statements, authorizations, documents or other communications to the City, except as expressly otherwise required in D5.3, D5.4 or elsewhere in the Contract, shall be sent to the attention of the Contract Administrator at the address or facsimile number identified in D3.1.

D5.3 All notices of appeal to the Chief Administrative Officer shall be sent to the attention of the Chief Financial Officer at the following address or facsimile number and a copy sent to the Contract Administrator at the address detailed in D3.1:

The City of Winnipeg
Chief Administrative Officer Secretariat
Administration Building, 3rd Floor
510 Main Street
Winnipeg MB R3B 1B9
Facsimile No.: (204) 949-1174

D5.4 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

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

D6. FURNISHING OF DOCUMENTS

- D6.1 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

D7. SAFE WORK PLAN

- D7.1 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 GC:4.1 for the return of the executed Contract.
- D7.2 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>.

D8. INSURANCE

- D8.1 The City shall provide and maintain the following Project Insurance Coverages:
- D8.1.1 Builder's Risk Insurance in the amount of one hundred percent (100%) of the total project cost.
- (a) The Contractor shall be responsible for deductibles up to \$25,000.00 maximum of any one loss.
- D8.1.2 Wrap-Up Liability Insurance in the amount of no less than 10 million dollars (\$10,000,000.00).
- (a) The Contractor shall be responsible for deductibles up to \$25,000.00 maximum of any one loss.
- D8.2 The City of Winnipeg will carry such insurance to cover all parties engaged in the Work in this Contract. Provision of this insurance by the City of Winnipeg is not intended in any way to relieve the Contractor from his obligations under the terms of the Contract. Specifically, losses relating to deductibles for insurance, as well as losses in excess of limits of coverage and any risk of loss that is not covered under the terms of the insurance provided by the City of Winnipeg remains with the Contractor.
- D8.3 The Contractor shall provide and maintain the following insurance coverage at all times during the performance of the Work:
- D8.3.1 Automobile liability insurance for owned and non-owned automobiles used for or in connection with the Work in the amount of at least two million dollars (\$2,000,000.00).
- (a) Deductibles shall be borne by the Contractor;
- (b) 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.

- (c) The Contractor shall provide the Contract Administrator with evidence of insurance of the policy at least two (2) Business Days prior to the commencement of any Work on the Site but in no event later than seven (7) Calendar Days from notification of the Award of Contract.

D9. PERFORMANCE SECURITY

- D9.1 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.
- D9.1.1 Where the performance security is in the form of a certified cheque or draft, it will be deposited by the City. The City will not pay any interest on certified cheques or drafts furnished as performance security.
- D9.2 If the bid security provided in his Bid Submission 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 GC:4.1 for the return of the executed Contract.

D10. DETAILED WORK SCHEDULE

- D10.1 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 GC:4.1 for the return of the executed Contract.
- D10.2 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;all acceptable to the Contract Administrator.
- D10.3 Further to D10.2(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) Commencement date;
 - (b) Shop Drawing submittal dates;
 - (c) Equipment delivery dates;
 - (d) Testing, Commissioning and Training;
 - (e) Substantial Performance;
 - (f) Total Performance

D10.4 Further to D10.2(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.

SCHEDULE OF WORK

D11. COMMENCEMENT

D11.1 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.

D11.2 The anticipated award date for this Bid Opportunity is July 11, 2006.

D11.3 The Contractor shall not commence any Work on the Site until:

- (a) the Contract Administrator has confirmed receipt and approval of:
 - (i) evidence that the Contractor is 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;
 - (ii) evidence of the workers compensation coverage specified in GC:6.14;
 - (iii) the Safe Work Plan specified in D7;
 - (iv) evidence of the insurance specified in D8;
 - (v) the performance security specified in D9;
 - (vi) the detailed work schedule specified in D10
- (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.

D12. CRITICAL STAGES

D12.1 The Contractor shall achieve critical stages of the Work in accordance with the following requirements:

- (a) Ferric chloride system installed, commissioned, and operation by March 31, 2007.

D13. SUBSTANTIAL PERFORMANCE

D13.1 The Contractor shall achieve Substantial Performance by January 15, 2008.

D13.2 When the Contractor considers the Work to be substantially performed, the Contractor shall arrange, attend and assist in the inspection of the Work with the Contract Administrator for purposes of verifying Substantial Performance. Any defects or deficiencies in the Work noted during that inspection shall be remedied by the Contractor at the earliest possible instance and the Contract Administrator notified so that the Work can be reinspected.

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

D14. TOTAL PERFORMANCE

- D14.1 The Contractor shall achieve Total Performance by March 15, 2008.
- D14.2 When the Contractor or the Contract Administrator considers the Work to be totally performed, the Contractor shall arrange, attend and assist in the inspection of the Work with the Contract Administrator for purposes of verifying Total Performance. Any defects or deficiencies in the Work noted during that inspection shall be remedied by the Contractor at the earliest possible instance and the Contract Administrator notified so that the Work can be reinspected.
- D14.3 The date on which the Work has been certified by the Contract Administrator as being totally performed to the requirements of the Contract through the issue of a certificate of Total Performance is the date on which Total Performance has been achieved.

D15. LIQUIDATED DAMAGES

- D15.1 If the Contractor fails to achieve Substantial Performance in accordance with the Contract by the day fixed herein for Substantial Performance, the Contractor shall pay the City One thousand five hundred dollars (\$1500) per Working Day for each and every Working Day following the day fixed herein for Substantial Performance during which such failure continues.
- D15.2 The amount specified for liquidated damages in D15.1 is based on a genuine pre-estimate of the City's losses in the event that the Contractor does not achieve Substantial Performance by the day fixed herein for same.
- D15.3 The City may reduce any payment to the Contractor by the amount of any liquidated damages assessed.

CONTROL OF WORK

D16. JOB MEETINGS

- D16.1 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.
- D16.2 The Contract Administrator reserves the right to cancel any job meeting or call additional job meetings whenever he deems it necessary.

D17. PRIME CONTRACTOR – THE WORKPLACE SAFETY AND HEALTH ACT (MANITOBA)

- D17.1 Further to GC:6.26, 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

D18. PAYMENT SCHEDULE

- D18.1 Further to GC:12, payment shall be in accordance with monthly progress claims. The City shall only be required to pay the Contractor for material and equipment required for the Work upon the installation and total incorporation of same permanently into the Work.
- D18.2 To facilitate payment the Contractor shall provide an acceptable breakdown of the contract price to the Contract Administrator at least 1 day prior to the first progress payment request.

WARRANTY

D19. WARRANTY

- D19.1 Notwithstanding GC:13.2, 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 GC:13.2.1 or GC:13.2.2, in which case it shall expire when provided for thereunder.
- D19.1.1 For the purpose of Performance Security, the warranty period shall be one (1) year.
- D19.2 Notwithstanding GC:13.2 or D19.1, 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.
- D19.2.1 In such case, the date specified by the Contract Administrator for the warranty period to begin shall be substituted for the date specified in GC:13.2 for the warranty period to begin.

FORM H1: PERFORMANCE BOND
(See D9)

KNOW ALL MEN BY THESE PRESENTS THAT

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

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

_____ dollars (\$_____)

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

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

_____ day of _____, 20____, for:

BID OPPORTUNITY NO. 21-2006

WEST END WATER POLLUTION CONTROL CENTRE – BIOLOGICAL NUTRIENT REMOVAL
UPGRADE

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)

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

(Date)

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

RE: PERFORMANCE SECURITY - BID OPPORTUNITY NO. 21-2006

WEST END WATER POLLUTION CONTROL CENTRE – BIOLOGICAL NUTRIENT REMOVAL
UPGRADE

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

(Name of bank or financial institution)

Per: _____
(Authorized Signing Officer)

Per: _____
(Authorized Signing Officer)

PART E - SPECIFICATIONS

GENERAL

E1. APPLICABLE SPECIFICATIONS, STANDARD DETAILS AND DRAWINGS

- E1.1 *The City of Winnipeg Standard Construction Specifications* in its entirety, whether or not specifically listed on Form B: Prices, shall apply to the Work.
- E1.1.1 *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>.
- E1.1.2 The version in effect three (3) Business Days before the Submission Deadline shall apply.
- E1.1.3 Further to GC:2.4(d), Specifications included in the Bid Opportunity shall govern over *The City of Winnipeg Standard Construction Specifications*.
- E1.2 The following Drawings are applicable to the Work:

AREA L - GENERAL AND SITEWORKS

GENERAL

LG1.01	Area L - General and Siteworks	Area Plan
LG1.02	Area L - General and Siteworks	Grid Plan
LG2.01	Area L - General and Siteworks	Process Flow Diagram

CIVIL

LC1.01	Area L - General and Siteworks	Paving and Grading Plan
LC2.01	Area L - General and Siteworks	Sections and Details

PROCESS & INSTRUMENTATION

LI1.01	Area P - Primary Clarifiers	Primary Sludge Pumping - P&ID
LI1.02	Area P - Primary Clarifiers	Sump Pumping - P&ID
LI2.01	Area S - Bioreactors	Bioreactor 1 - P&ID
LI2.02	Area S - Bioreactor 1	Bioreactor 1 - P&ID
LI2.03	Area S - Bioreactor 2	Bioreactor 2 - P&ID
LI2.04	Area S - Bioreactor 2	Bioreactor 2 - P&ID
LI2.05	Area S - Bioreactors	Waste Activated Sludge System - P&ID
LI2.06	Area S - Secondary Clarifiers	Secondary Clarifier 3 - P&ID
LI2.07	Area S - Secondary Clarifier 3	Return Activated Sludge Pumping - P&ID
LI2.08	Area S - Secondary Clarifiers	Secondary Clarifier 1 & 2 P&ID
LI3.01	Area F - Primary Sludge Fermenters	Fermenter 1 - P&ID
LI3.02	Area F - Primary Sludge Fermenters	Fermenter 1 - P&ID
LI3.03	Area F - Primary Sludge Fermenters	Fermenter 2 - P&ID
LI3.04	Area F - Primary Sludge Fermenters	Sludge Pumping - P&ID
LI3.05	Area F - Primary Sludge Fermenters	Supernatant Pumping - P&ID
LI3.06	Area F - Primary Sludge Fermenters	Foul Air System - P&ID
LI4.01	Area T - DAF Thickener Building	Polymer System - P&ID
LI4.02	Area T - DAF Thickener Building	DAF Thickener 1 - P&ID
LI4.03	Area T - DAF Thickener Building	DAF Thickener 2 - P&ID
LI4.04	Area T - DAF Thickener Building	Subnatant Pumping - P&ID
LI4.05	Area T - DAF Thickener Building	Ferric Chloride Dosing - P&ID
LI4.06	Area T - DAF Thickener Building	Ferric Chloride Dosing - P&ID
LI4.07	Area T - DAF Thickener Building	Primary Clarifier Polymer System - P&ID

LI5.01	Area L - General and Siteworks	Site Plan
STRUCTURAL		
LS1.01	Area L - General and Siteworks	General Notes
LS1.02	Area L - General and Siteworks	Standard Details
LS1.03	Area L - General and Siteworks	Standard Details
LS1.04	Area L - General and Siteworks	Standard Details
LS1.05	Area L - General and Siteworks	Standard Details
LS1.06	Area L - General and Siteworks	Standard Details
PROCESS		
LP0.01	Area L - General and Siteworks	Legend and Abbreviations
LP0.02	Area L - General and Siteworks	Legend and Abbreviations
LP0.03	Area L - General and Siteworks	Legend and Abbreviations
LP1.01	Area L - General and Siteworks	BNR Hydraulic Profile
LP2.01	Area L - General and Siteworks	Standard Details
LP2.02	Area L - General and Siteworks	Standard Details
LP2.03	Area L - General and Siteworks	Standard Details
LP2.04	Area L - General and Siteworks	Standard Details
LP2.05	Area L - General and Siteworks	Standard Details
LP3.01	Area L - General and Siteworks	Flushing Water Schematic
LP3.02	Area L - General and Siteworks	Instrument/Service Air Schematic
MECHANICAL		
LM1.01	Area L - General and Siteworks	Legends and Abbreviations
LM2.01	Area L - General and Siteworks	Plumbing Standard Details
LM2.02	Area L - General and Siteworks	Plumbing Standard Details
LM3.01	Area L - General and Siteworks	Ventilation Standard Details
LM3.02	Area L - General and Siteworks	Ventilation Standard Details
LM4.01	Area L - General and Siteworks	Plumbing and Ventilation Schematics
LM4.02	Area L - General and Siteworks	Heating and Ventilation Schematics
LM4.03	Area L - General and Siteworks	Heating and Ventilation Schematics
LM4.04	Area L - General and Siteworks	Heating and Ventilation Schematics
LM4.05	Area L - General and Siteworks	Heating and Ventilation Schematics
LM4.06	Area L - General and Siteworks	Heating and Ventilation Schematics
LM4.07	Area L - General and Siteworks	Heating, Cooling and Ventilation Schematics
LM4.08	Area L - General and Siteworks	Heating, Cooling and Ventilation Schematics
LM4.09	Area L - General and Siteworks	Polymer Water Supply Schematics
ELECTRICAL		
LE1.01	Area L - General and Siteworks	Symbol Legend
LE1.02	Area L - General and Siteworks	Electrical Cable Installation Routing
LE1.03	Area L - General and Siteworks	Modified Single Line Diagram
LE2.01	Area L - General and Siteworks	Luminaire Schedule and Mounting Details
<u>AREA H - HEADWORKS</u>		
PROCESS		
HP1.01	Area H - Headworks	Plan
HP1.02	Area H - Headworks	Plan
MECHANICAL		
HM0.01	Area H - Headworks	Existing Main Floor Ventilation Demolition Plan
HM1.01	Area H - Headworks	Main Floor Plumbing Plan

HM1.02	Area H - Headworks	Upper Level - Plumbing Plan
HM2.01	Area H - Headworks	Main Floor Ventilation Plan
HM2.02	Area H - Headworks	Lower Level Ventilation Plan
HM3.01	Area H - Headworks	Sections

ELECTRICAL

HE1.01	Area H - Headworks	Power Plans
HE2.01	Area H - Headworks	Details

AREA P - PRIMARY CLARIFIERS

PROCESS

PP0.01	Area P - Primary Clarifiers	Pump Room - Demolition Plan
PP1.01	Area P - Primary Clarifiers	Pump Room - Plan
PP1.02	Area P - Primary Clarifiers	Pump Room - Sections

MECHANICAL

PM1.01	Area P - Primary Clarifiers	Tunnel Plumbing Plan
PM2.01	Area P - Primary Clarifiers	Tunnel Ventilation Plan
PM3.01	Area P - Primary Clarifiers	Lower Level Hydronic Part Plan

INSTRUMENTATION

PI1.01	Area P - Primary Clarifiers	Pump Room - Location Plan
--------	-----------------------------	---------------------------

AREA S - BIOREACTORS

ARCHITECTURAL

SA6.01	Area S - Bioreactor 1	Electrical Room Roof and Main Floor Demolition Plans
SA6.02	Area S - Bioreactor 1	Electrical Room New Roof and Main Floor Plans
SA7.01	Area S - Bioreactor 1	Electrical Room Building Elevations
SA8.01	Area S - Bioreactor 1	Electrical Room Building Sections and Details
SA9.01	Area S - Bioreactor 1	Electrical Room Details, Section & Schedules

STRUCTURAL

SS2.01	Area S - Bioreactor 1	Partial Lower Level Plan and Schedules
SS2.02	Area S - Bioreactor 2	Partial Lower Level Plan and Schedules
SS2.03	Area S - Bioreactor 1	Roof Framing Plan and Schedules
SS2.04	Area S - Bioreactor 2	Roof Framing Plan and Schedules
SS3.01	Area S - Bioreactors	Building Sections
SS3.02	Area S - Bioreactors	Building Sections
SS3.03	Area S - Bioreactors	Building Sections
SS3.04	Area S - Bioreactors	Sections and Details
SS3.05	Area S - Bioreactors	Platform Plan, Sections & Details
SS3.06	Area S - Bioreactors	Details & Sections
SS4.01	Area S - Bioreactors	Details
SS4.02	Area S - Bioreactors	Details
SS6.01	Area S - Bioreactors	Electrical Room Plans
SS6.02	Area S - Bioreactors	Electrical Room Sections and Details

PROCESS

SP0.01	Area S - Bioreactors	Demolition Plans, Sections and Details
SP1.01	Area S - Bioreactors	Overall Plan
SP1.02	Area S - Bioreactor 1	Plan
SP1.03	Area S - Bioreactor 2	Plan

SP1.04	Area S - Bioreactors	Was Pumping - Plan and Sections
SP1.05	Area S - Bioreactors	West Tunnel - Plan
SP1.06	Area S - Bioreactors	Sections
SP1.07	Area S - Bioreactors	Connection Details
MECHANICAL		
SM0.01	Area S - Bioreactors	Lower Level - Existing Ventilation Demolition Plan
SM1.01	Area S - Bioreactors	Lower Level, Electrical Room - Ventilation Plans
SM1.02	Area S - Bioreactors	Lower Level - Mechanical Plan
ELECTRICAL		
SE1.01	Area S - Bioreactors	Lower Level Power Plan
SE1.02	Area S - Bioreactor 1	Power Plan
SE1.03	Area S - Bioreactor 2	Power Plan
SE1.04	Area S - Bioreactors	Details
SE2.01	Area S - Bioreactors	Electrical Room Lighting and Systems Plan
SE2.02	Area S - Bioreactors	Electrical Room Power Plan
SE2.03	Area S - Bioreactors	Electrical Room Details
INSTRUMENTATION		
SI5.01	Area S - Bioreactors	Overall Location Plan
SI5.02	Area S - Bioreactor 1	Location Plan
SI5.03	Area S - Bioreactor 2	Location Plan
<u>AREA S - SECONDARY CLARIFIERS</u>		
ARCHITECTURAL		
SA1.01	Area S - Secondary Clarifiers	Roof Plan
SA1.02	Area S - Secondary Clarifiers	Floor Plan
SA3.01	Area S - Secondary Clarifiers	Building Sections
SA4.01	Area S - Secondary Clarifiers	Sections & Details
SA5.01	Area S - Secondary Clarifiers	Building Sections
SA5.02	Area S - Secondary Clarifiers	Building Sections
STRUCTURAL		
SS8.01	Area S - Secondary Clarifier 3	Piling Plan and Schedule
SS8.02	Area S - Secondary Clarifier 3	Foundation Framing Plan
SS8.03	Area S - Secondary Clarifier 3	Effluent Level Framing Plan
SS8.04	Area S - Secondary Clarifier 3	Walkway Level Framing Plans
SS8.05	Area S - Secondary Clarifier 3	Mechanical Room Framing Plans
SS9.01	Area S - Secondary Clarifier 3	Sections and Details
SS10.01	Area S - Secondary Clarifier 3	Sections and Details
SS10.02	Area S - Secondary Clarifier 3	Sections and Details
PROCESS		
SP0.02	Area S - Secondary Clarifiers	Lower Level Demolition Plan
SP2.01	Area S - Secondary Clarifiers	Upper Level Key Plan
SP2.02	Area S - Secondary Clarifiers	Lower Level Key Plan
SP2.03	Area S - Secondary Clarifier 3	Lower Level Plan
SP2.04	Area S - Secondary Clarifiers	Pump Room Plan
SP2.05	Area S - Secondary Clarifiers	West Tunnel Plan and Details
SP2.06	Area S - Secondary Clarifiers	Flushing Water Pump Plan and Sections
SP2.07	Area S - Secondary Clarifier 3	Section
SP2.08	Area S - Secondary Clarifier 3	Sections and Details

SP2.09	Area S - Secondary Clarifiers	Section
SP2.10	Area S - Secondary Clarifiers	Sections
SP2.11	Area S - Secondary Clarifiers	Plan and Section

MECHANICAL

SM2.01	Area S - Secondary Clarifier 3	Plumbing Plans
SM3.01	Area S - Secondary Clarifier 3	Lower Level Ventilation Plan
SM3.02	Area S - Secondary Clarifier 3	Ventilation Plan
SM4.01	Area S - Secondary Clarifier 3	Lower Level Hydronic Part Plan
SM4.02	Area S - Secondary Clarifier 3	Mechanical Room Hydronic Plan
SM5.01	Area S - Secondary Clarifier 3	Sections
SM5.02	Area S - Secondary Clarifier 3	Mechanical Room Sections

ELECTRICAL

SE3.01	Area S - Secondary Clarifier 3	Main Floor Lighting and Systems Plan
SE3.02	Area S - Secondary Clarifiers	Pump Room Power Plan
SE3.03	Area S - Secondary Clarifier 3	Upper Level Power Plan
SE4.01	Area S - Secondary Clarifiers	Existing Electrical Room Details

INSTRUMENTATION

SI6.01	Area S - Secondary Clarifiers	Upper Level Location Plan
SI6.02	Area S - Secondary Clarifier 3	Upper Level Location Plan
SI6.04	Area S - Secondary Clarifiers	Pump Room Location Plan

AREA F - PRIMARY SLUDGE FERMENTERS

ARCHITECTURAL

FA1.01	Area F - Primary Sludge Fermenters	Roof Plan, Schedules
FA1.02	Area F - Primary Sludge Fermenters	Floor Plan & Schedules
FA1.03	Area F - Primary Sludge Fermenters	Mezzanine Plan
FA2.01	Area F - Primary Sludge Fermenters	Exterior Elevations
FA3.01	Area F - Primary Sludge Fermenters	Building Sections
FA4.01	Area F - Primary Sludge Fermenters	Sections & Details

STRUCTURAL

FS2.01	Area F - Primary Sludge Fermenters	Piling Plan and Schedule
FS2.02	Area F - Primary Sludge Fermenters	Foundation Framing Plan
FS2.03	Area F - Primary Sludge Fermenters	Main Floor Plan
FS2.04	Area F - Primary Sludge Fermenters	Mezzanine Framing and Details
FS2.05	Area F - Primary Sludge Fermenters	Roof Framing Plan
FS2.06	Area F - Primary Sludge Fermenters	Walkway Plans
FS2.07	Area F - Primary Sludge Fermenters	Walkway Sections and Details
FS3.01	Area F - Primary Sludge Fermenters	Sections and Details
FS5.01	Area F - Primary Sludge Fermenters	Sections and Details
FS5.02	Area F - Primary Sludge Fermenters	Sections and Details

PROCESS

FP1.01	Area F - Primary Sludge Fermenters	Lower Level Plan
FP1.02	Area F - Primary Sludge Fermenters	Upper Level Plan
FP1.03	Area F - Primary Sludge Fermenters	Pump Room - Plan
FP1.04	Area F - Primary Sludge Fermenters	Sections
FP1.05	Area F - Primary Sludge Fermenters	Pump Room Section
FP1.06	Area F - Primary Sludge Fermenters	Pump Room Section
FP1.07	Area F - Primary Sludge Fermenters	Fermenter Section

MECHANICAL

FM1.01	Area F - Primary Sludge Fermenters	Plumbing Plans & Section
FM2.01	Area F - Primary Sludge Fermenters	Pump Room Ventilation Plans
FM3.01	Area F - Primary Sludge Fermenters	Lower Level Hydronic Part Plan
FM4.01	Area F - Primary Sludge Fermenters	Section

ELECTRICAL

FE1.01	Area F - Primary Sludge Fermenters	Lighting and Systems Plan
FE1.02	Area F - Primary Sludge Fermenters	Power Plans

INSTRUMENTATION

FI2.02	Area F - Primary Sludge Fermenters	Roof Level Location Plan
FI2.03	Area F - Primary Sludge Fermenters	Pump Room - Location Plan

AREA T - DAF THICKENERS

ARCHITECTURAL

TA1.01	Area T - DAF Thickener Building	Roof Plan, Floor Plans and Schedules
TA1.02	Area T - DAF Thickener Building	Mezzanine Floor and Ref Ceiling Plans, & Schedules
TA2.01	Area T - DAF Thickener Building	Exterior Elevations
TA3.01	Area T - DAF Thickener Building	Building Sections
TA4.01	Area T - DAF Thickener Building	Details
TA4.02	Area T - DAF Thickener Building	Details

STRUCTURAL

TS2.01	Area T - DAF Thickener Building	Piling Plan and Schedules
TS2.02	Area T - DAF Thickener Building	Foundation Plan and Schedules
TS2.03	Area T - DAF Thickener Building	Main Floor Framing Plan and Schedules
TS2.04	Area T - DAF Thickener Building	Mezzanine and DAF Operating Platforms Framing Plan
TS2.05	Area T - DAF Thickener Building	Roof Framing Plans and Schedules
TS3.01	Area T - DAF Thickener Building	Building Elevations
TS4.01	Area T - DAF Thickener Building	Building Sections
TS4.02	Area T - DAF Thickener Building	Building Sections
TS5.01	Area T - DAF Thickener Building	Sections and Details
TS5.02	Area T - DAF Thickener Building	Sections and Details
TS5.03	Area T - DAF Thickener Building	Sections and Details
TS5.04	Area T - DAF Thickener Building	Sections and Details
TS5.05	Area T - DAF Thickener Building	Sections and Details
TS5.06	Area T - DAF Thickener Building	Sections and Details
TS6.01	Area T - DAF Thickener Building	Grating Plans, Sections and Details
TS6.02	Area T - DAF Thickener Building	Stair No. 1 and 2 Plans, Sections and Details
TS6.03	Area T - DAF Thickener Building	Stair No. 3 Plan, Sections and Details

PROCESS

TP1.01	Area T - DAF Thickener Building	Plan
TP1.02	Area T - DAF Thickener Building	Polymer/Ferric Rooms - Plan
TP1.03	Area T - DAF Thickener Building	DAF Thickeners - Sections
TP1.04	Area T - DAF Thickener Building	Section
TP1.05	Area T - DAF Thickener Building	Polymer/Ferric Chloride Room - Section

MECHANICAL

TM1.01	Area T - DAF Thickener Building	Foundation and Main Floor Plumbing Plan
TM1.02	Area T - DAF Thickener Building	Mezzanine Plumbing Plan

TM2.01	Area T - DAF Thickener Building	Roof Ventilation Plan
TM2.02	Area T - DAF Thickener Building	Mezzanine Ventilation Plan
TM3.01	Area T - DAF Thickener Building	Hydronic Plan
TM4.01	Area T - DAF Thickener Building	Sections
TM4.02	Area T - DAF Thickener Building	Sections
TM4.03	Area T - DAF Thickener Building	Section
TM4.04	Area T - DAF Thickener Building	Section

ELECTRICAL

TE1.01	Area T - DAF Thickener Building	Main Floor Lighting and Systems Plan
TE1.02	Area T - DAF Thickener Building	Main Floor Power Plan
TE1.03	Area T - DAF Thickener Building	Mezzanine Lighting, Systems and Power Plan
TE2.01	Area T - DAF Thickener Building	Details

INSTRUMENTATION

TI4.01	Area T - DAF Thickener Building	Location Plan
TI4.02	Area T - DAF Thickener Building	Polymer/Ferric Rooms - Location Plan

AREA U - UTILITY BUILDING

MECHANICAL

UM1.01	Area U - Utility Building	Blower Room - Piping Insulation Plan
UM2.01	Area U - Utility Building	Blower Room - Piping Insulation Sections

E1.3 All requests for substitutes will be reviewed in accordance with the provisions of B6.

E1.4 The following Specifications are applicable to the Work:

- (a) Division 1 General Requirements
- (b) Division 2 Site Construction
- (c) Division 3 Concrete
- (d) Division 4 Masonry
- (e) Division 5 Metals
- (f) Division 6 Wood and Plastics
- (g) Division 7 Thermal and Moisture Protection
- (h) Division 8 Doors and Windows
- (i) Division 9 Finishes
- (j) Division 11 Equipment
- (k) Division 13 Special Construction
- (l) Division 14 Conveying Systems
- (m) Division 15 Mechanical
- (n) Division 16 Electrical
- (o) Division 17 Instrumentation and Control