



THE CITY OF WINNIPEG

BID OPPORTUNITY

BID OPPORTUNITY NO. 528-2014

**2014 BRIDGE MAINTENANCE PROGRAM – DUGALD DRAIN CULVERT
REPLACEMENT AT HAPPYLAND PARK**

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PART B - BIDDING PROCEDURES

B1. CONTRACT TITLE

B1.1 2014 BRIDGE MAINTENANCE PROGRAM – DUGALD DRAIN CULVERT REPLACEMENT AT HAPPYLAND PARK

B2. SUBMISSION DEADLINE

B2.1 The Submission Deadline is 12:00 noon Winnipeg time, July 4, 2014.

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 Bidder may view the Site without making an appointment.

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. CONFIDENTIALITY

B5.1 Information provided to a Bidder by the City or acquired by a Bidder by way of further enquiries or through investigation is confidential. Such information shall not be used or disclosed in any way without the prior written authorization of the Contract Administrator. The use and disclosure of the confidential information shall not apply to information which:

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

B5.2 The Bidder shall not make any statement of fact or opinion regarding any aspect of the Bid Opportunity to the media or any member of the public without the prior written authorization of the Contract Administrator.

B6. ADDENDA

- B6.1 The Contract Administrator may, at any time prior to the Submission Deadline, issue addenda correcting errors, discrepancies or omissions in the Bid Opportunity, or clarifying the meaning or intent of any provision therein.
- B6.2 The Contract Administrator will issue each addendum at least two (2) Business Days prior to the Submission Deadline, or provide at least two (2) Business Days by extending the Submission Deadline.
- B6.2.1 Addenda will be available on the Bid Opportunities page at The City of Winnipeg, Corporate Finance, Materials Management Division website at <http://www.winnipeg.ca/matmgt/bidopp.asp>
- B6.2.2 The Bidder is responsible for ensuring that he/she has received all addenda and is advised to check the Materials Management Division website for addenda regularly and shortly before the Submission Deadline, as may be amended by addendum.
- B6.3 The Bidder shall acknowledge receipt of each addendum in Paragraph 10 of Form A: Bid. Failure to acknowledge receipt of an addendum may render a Bid non-responsive.

B7. SUBSTITUTES

- B7.1 The Work is based on the Plant, Materials and methods specified in the Bid Opportunity.
- B7.2 Substitutions shall not be allowed unless application has been made to and prior approval has been granted by the Contract Administrator in writing.
- B7.3 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.
- B7.4 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; and,
 - (e) certify that, in the case of a request for approval as an approved alternative, the substitute will adequately perform the functions called for by the general design, be similar in substance to that specified, is suited to the same use and capable of performing the same function as that specified and can be incorporated into the Work, strictly in accordance with the proposed work schedule and the dates specified in the Supplemental Conditions for Substantial Performance and Total Performance.
- B7.5 The Contract Administrator, after assessing the request for approval of a substitute, may in his/her sole discretion grant approval for the use of a substitute as an "approved equal" or as an "approved alternative", or may refuse to grant approval of the substitute.
- B7.6 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.

- B7.6.1 The City will issue an Addendum, disclosing the approved materials, equipment, methods and products to all potential Bidders. The Bidder requesting and obtaining the approval of a substitute shall be entirely responsible for disseminating information regarding the approval to any person or persons he/she wishes to inform.
- B7.7 If the Contract Administrator approves a substitute as an “approved equal”, any Bidder may use the approved equal in place of the specified item.
- B7.8 If the Contract Administrator approves a substitute as an “approved alternative”, any Bidder bidding that approved alternative may base his/her Total Bid Price upon the specified item but may also indicate an alternative price based upon the approved alternative. Such alternatives will be evaluated in accordance with B16.
- B7.9 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.
- B7.10 Notwithstanding B7.2 to B7.9, and in accordance with B8.6 deviations inconsistent with the Bid Opportunity document shall be evaluated in accordance with B16.1(a).

B8. BID COMPONENTS

- B8.1 The Bid shall consist of the following components:
- (a) Form A: Bid;
 - (b) Form B: Prices;
 - (c) Bid Security:
 - (i) Form G1: Bid Bond and Agreement to Bond, or
Form G2: Irrevocable Standby Letter of Credit and Undertaking, or
a certified cheque or draft.
- B8.2 Further to B8.1, the Bidder should include the written correspondence from the Contract Administrator approving a substitute in accordance with B7.
- B8.3 All components of the Bid shall be fully completed or provided, and submitted by the Bidder no later than the Submission Deadline, with all required entries made clearly and completely, to constitute a responsive Bid.
- B8.4 The Bid shall be submitted enclosed and sealed in an envelope clearly marked with the Bid Opportunity number and the Bidder's name and address.
- B8.4.1 Samples or other components of the Bid which cannot reasonably be enclosed in the envelope may be packaged separately, but shall be clearly marked with the Bid Opportunity number, the Bidder's name and address, and an indication that the contents are part of the Bidder's Bid.
- B8.5 Bidders are advised not to include any information/literature except as requested in accordance with B8.1.
- B8.6 Bidders are advised that inclusion of terms and conditions inconsistent with the Bid Opportunity document, including the General Conditions, will be evaluated in accordance with B16.1(a).
- B8.7 Bids submitted by facsimile transmission (fax) or internet electronic mail (e-mail) will not be accepted.
- B8.8 Bids shall be submitted to:
- The City of Winnipeg
Corporate Finance Department
Materials Management Division
185 King Street, Main Floor

Winnipeg, MB R3B 1J1

B9. BID

- B9.1 The Bidder shall complete Form A: Bid, making all required entries.
- B9.2 Paragraph 2 of Form A: Bid shall be completed in accordance with the following requirements:
- (a) if the Bidder is a sole proprietor carrying on business in his/her own name, his/her name shall be inserted;
 - (b) if the Bidder is a partnership, the full name of the partnership shall be inserted;
 - (c) if the Bidder is a corporation, the full name of the corporation shall be inserted; and,
 - (d) if the Bidder is carrying on business under a name other than his/her own, the business name and the name of every partner or corporation who is the owner of such business name shall be inserted.
- B9.2.1 If a Bid is submitted jointly by two or more persons, each and all such persons shall identify themselves in accordance with B9.2.
- B9.3 In Paragraph 3 of Form A: Bid, the Bidder shall identify a contact person who is authorized to represent the Bidder for purposes of the Bid.
- B9.4 Paragraph 12 of Form A: Bid shall be signed in accordance with the following requirements:
- (a) if the Bidder is a sole proprietor carrying on business in his/her own name, it shall be signed by the Bidder;
 - (b) if the Bidder is a partnership, it shall be signed by the partner or partners who have authority to sign for the partnership;
 - (c) if the Bidder is a corporation, it shall be signed by its duly authorized officer or officers and the corporate seal, if the corporation has one, should be affixed; and,
 - (d) if the Bidder is carrying on business under a name other than his/her own, it shall be signed by the registered owner of the business name, or by the registered owner's authorized officials if the owner is a partnership or a corporation.
- B9.4.1 The name and official capacity of all individuals signing Form A: Bid should be printed below such signatures.
- B9.5 If a Bid is submitted jointly by two or more persons, the word "Bidder" shall mean each and all such persons, and the undertakings, covenants and obligations of such joint Bidders in the Bid and the Contract, when awarded, shall be both joint and several.

B10. PRICES

- B10.1 The Bidder shall state a price in Canadian funds for each item of the Work identified on Form B: Prices.
- B10.1.1 Notwithstanding C12.2.3(c), prices on Form B: Prices shall not include the Manitoba Retail Sales Tax (MRST, also known as PST), which shall be extra where applicable.
- B10.2 The quantities listed on Form B: Prices are to be considered approximate only. The City will use said quantities for the purpose of comparing Bids.
- B10.3 The quantities for which payment will be made to the Contractor are to be determined by the Work actually performed and completed by the Contractor, to be measured as specified in the applicable Specifications.
- B10.4 Payments to Non-Resident Contractors are subject to Non-Resident Withholding Tax pursuant to the Income Tax Act (Canada).

B11. QUALIFICATION

B11.1 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.

B11.2 The Bidder and any proposed Subcontractor (for the portion of the Work proposed to be subcontracted to them) shall:

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

B11.3 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;
- (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);

B11.4 Further to B11.3(c), the Bidder shall, within five (5) Business Days of a request by the Contract Administrator, provide proof satisfactory to the Contract Administrator that the Bidder/Subcontractor has a workplace safety and health program meeting the requirements of The Workplace Safety and Health Act (Manitoba), by providing:

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

B11.5 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.

B11.6 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.

B12. BID SECURITY

B12.1 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.

B12.1.1 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.

B12.1.2 All signatures on bid securities shall be original.

B12.1.3 The Bidder shall sign the Bid Bond.

B12.1.4 The Surety shall sign and affix its corporate seal on the Bid Bond and the Agreement to Bond.

B12.2 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.

B12.2.1 Where the bid security provided by the successful Bidder is in the form of a certified cheque or draft pursuant to B12.1(c), it will be deposited and retained by the City as the performance security and no further submission is required.

B12.2.2 The City will not pay any interest on certified cheques or drafts furnished as bid security or subsequently retained as performance security.

B12.3 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.

B13. OPENING OF BIDS AND RELEASE OF INFORMATION

B13.1 Bids will be opened publicly, after the Submission Deadline has elapsed, in the office of the Corporate Finance Department, Materials Management Division, or in such other office as may be designated by the Manager of Materials.

B13.1.1 Bidders or their representatives may attend.

B13.1.2 Bids determined by the Manager of Materials, or his/her designate, to not include the bid security specified in B12 will not be read out.

B13.2 Following the Submission Deadline, the names of the Bidders and their Total Bid Prices (unevaluated, and pending review and verification of conformance with requirements) will be available on the Closed Bid Opportunities (or Public/Posted Opening & Award Results) page at The City of Winnipeg, Corporate Finance, Materials Management Division website at <http://www.winnipeg.ca/matmgt/>

B13.3 After award of Contract, the name(s) of the successful Bidder(s) and the Contract amount(s) will be available on the Closed Bid Opportunities (or Public/Posted Opening & Award Results) page at The City of Winnipeg, Corporate Finance, Materials Management Division website at <http://www.winnipeg.ca/matmgt/>

B13.4 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.

B14. IRREVOCABLE BID

B14.1 The Bid(s) submitted by the Bidder shall be irrevocable for the time period specified in Paragraph 11 of Form A: Bid.

B14.2 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.

B15. WITHDRAWAL OF BIDS

B15.1 A Bidder may withdraw his/her Bid without penalty by giving written notice to the Manager of Materials at any time prior to the Submission Deadline.

B15.1.1 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.

B15.1.2 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.

B15.1.3 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 B15.1.3(b), declare the Bid withdrawn.

B15.2 A Bidder who withdraws his/her Bid after the Submission Deadline but before his/her Bid has been released or has lapsed as provided for in B14.2 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.

B16. EVALUATION OF BIDS

B16.1 Award of the Contract shall be based on the following bid evaluation criteria:

- (a) compliance by the Bidder with the requirements of the Bid Opportunity, or acceptable deviation there from (pass/fail);
- (b) qualifications of the Bidder and the Subcontractors, if any, pursuant to B11 (pass/fail);
- (c) Total Bid Price; and,
- (d) economic analysis of any approved alternative pursuant to B7.

B16.2 Further to B16.1(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.

B16.3 Further to B16.1(b), the Award Authority shall reject any Bid submitted by a Bidder who does not demonstrate, in his/her Bid or in other information required to be submitted, that he/she is responsible and qualified.

B16.4 Further to B16.1(c), the Total Bid Price shall be the sum of the quantities multiplied by the unit prices for each item shown on Form B: Prices.

B16.4.1 Further to B16.1(a), in the event that a unit price is not provided on Form B: Prices, the City will determine the unit price by dividing the Amount (extended price) by the approximate quantity, for the purposes of evaluation and payment.

B17. AWARD OF CONTRACT

B17.1 The City will give notice of the award of the Contract or will give notice that no award will be made.

B17.2 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.

B17.2.1 Without limiting the generality of B17.2, 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.

B17.3 Where an award of Contract is made by the City, the award shall be made to the responsible and qualified Bidder submitting the lowest evaluated responsive Bid, in accordance with B16.

B17.3.1 Following the award of contract, a Bidder will be provided with information related to the evaluation of his/her Bid upon written request to the Contract Administrator.

PART C - GENERAL CONDITIONS

C0. GENERAL CONDITIONS

- C0.1 The *General Conditions for Construction* (Revision 2006 12 15) are applicable to the Work of the Contract.
- C0.1.1 The *General Conditions for Construction* are available on the Information Connection page at The City of Winnipeg, Corporate Finance, Materials Management Division website at http://www.winnipeg.ca/matmgt/gen_cond.stm
- C0.2 A reference in the Bid Opportunity to a section, clause or subclause with the prefix “**C**” designates a section, clause or subclause in the *General Conditions for Construction*.

PART D - SUPPLEMENTAL CONDITIONS

GENERAL

D1. GENERAL CONDITIONS

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

D2. SCOPE OF WORK

D2.1 The Work to be done under the Contract shall consist of removal of existing culvert and retaining walls, placement of PCP culvert and associated earth works.

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

- (a) Mobilization and Demobilization;
- (b) Existing culvert and retaining wall demolition;
- (c) Excavation, grading, and backfill;
- (d) Installation of precast concrete culvert;
- (e) Transition grading;
- (f) Removal and installation of lighting conduit;
- (g) Installation of stone rip rap;
- (h) Installation of chain link fencing;
- (i) Construction of asphalt pathway; and,
- (j) Placement of topsoil and seed;

D3. CONTRACT ADMINISTRATOR

D3.1 The Contract Administrator is Dillon Consulting Limited, represented by:
Mark Doucet, P.Eng.
Project Manager

Telephone No. (204) 453-2301
Facsimile No. (204) 452-4412

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

D3.3 Bids Submissions must be submitted to the address in B8.8.

D4. CONTRACTOR'S SUPERVISOR

D4.1 At the pre-construction meeting, the Contractor shall identify his/her designated supervisor and any additional personnel representing the Contractor and their respective roles and responsibilities for the Work.

D5. OWNERSHIP OF INFORMATION, CONFIDENTIALITY AND NON DISCLOSURE

D5.1 The Contract, all deliverables produced or developed, and information provided to or acquired by the Contractor are the property of the City and shall not be appropriated for the Contractors own use, or for the use of any third party.

- D5.2 The Contractor shall not make any public announcements or press releases regarding the Contract, without the prior written authorization of the Contract Administrator.
- D5.3 The following shall be confidential and shall not be disclosed by the Contractor to the media or any member of the public without the prior written authorization of the Contract Administrator:
- (a) information provided to the Contractor by the City or acquired by the Contractor during the course of the Work;
 - (b) the Contract, all deliverables produced or developed; and,
 - (c) any statement of fact or opinion regarding any aspect of the Contract.
- D5.4 A Contractor who violates any provision of D5 may be determined to be in breach of Contract.

D6. NOTICES

- D6.1 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.
- D6.2 All notices, requests, nominations, proposals, consents, approvals, statements, authorizations, documents or other communications to the City, except as expressly otherwise required in D6.3, D6.4 or elsewhere in the Contract, shall be sent to the attention of the Contract Administrator at the facsimile number identified in D3.1.
- D6.3 Notwithstanding C21, all notices of appeal to the Chief Administrative Officer shall be sent to the attention of the Chief Financial Officer at the following facsimile number:
- The City of Winnipeg
Chief Financial Officer
Facsimile No.: 204 949-1174
- D6.4 All notices, requests, nominations, proposals, consents, approvals, statements, authorizations, documents or other communications required to be submitted or returned to the City Solicitor shall be sent to the following facsimile number:
- The City of Winnipeg
Legal Services Department
Attn: Director of Legal Services
Facsimile No.: 204 947-9155

D7. FURNISHING OF DOCUMENTS

- D7.1 Upon award of the Contract, the Contractor will be provided with five (5) complete sets of the Bid Opportunity. If the Contractor requires additional sets of the Bid Opportunity, they will be supplied to him/her at cost.

SUBMISSIONS

D8. AUTHORITY TO CARRY ON BUSINESS

- D8.1 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.

D9. SAFE WORK PLAN

- D9.1 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.
- D9.2 The Safe Work Plan should be prepared and submitted in the format shown in the City's template which is available on the Information Connection page at The City of Winnipeg, Corporate Finance, Materials Management Division website at:
<http://www.winnipeg.ca/matmgmt/Safety/default.stm>

D10. INSURANCE

- D10.1 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, broad form property damage cover and products and completed operations, to remain in place at all times during the performance of the Work and throughout the warranty period;
 - (b) if applicable, Automobile Liability Insurance covering all motor vehicles, owned and operated and used or to be used by the Contractor directly or indirectly in the performance of the Work. The Limit of Liability shall not be less than \$2,000,000 inclusive for loss or damage including personal injuries and death resulting from any one accident or occurrence; and,
 - (c) an all risks Installation Floater carrying adequate limits to cover all machinery, equipment, supplies and/or materials intended to enter into and form part of any installation.
- D10.2 Deductibles shall be borne by the Contractor.
- D10.3 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.
- D10.4 The Contractor shall not cancel, materially alter, or cause each policy to lapse without providing at least thirty (30) Calendar Days prior written notice to the Contract Administrator.

D11. PERFORMANCE SECURITY

- D11.1 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.
- D11.1.1 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.

D11.2 If the bid security provided in his/her Bid was not a certified cheque or draft pursuant to B12.1(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.

D12. DETAILED WORK SCHEDULE

D12.1 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 the General Conditions for the return of the executed Contract.

D12.2 The detailed work schedule shall consist of the following:

- (a) a Gantt chart for the Work schedule
all acceptable to the Contract Administrator.

D12.3 Further to D12.2(a), the Gantt chart Work schedule shall clearly identify the start and completion dates.

D12.4 Further to D12.2(a), 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.

D12.5 The Contractor shall provide a tracked schedule showing actual progress in relation to the detailed work schedule on a regular basis. Update the schedule at least once per month and as requested by the Contract Administrator.

D13. ENVIRONMENTAL PROTECTION PLAN

D13.1 The Contractor will plan and implement the Work of this Contract strictly in accordance with the requirements of this Environmental Protection Plan as herein specified.

D13.2 The Contractor is advised that at a minimum the following Acts, Regulations and By-laws apply to the Work and are available for viewing on line at the applicable websites (www.canlii.ca and/or <http://www.winnipeg.ca/CLKDMIS/>) or at the office of the Contract Administrator.

D13.3 Federal

- (a) Canadian Environmental Assessment Act (CEAA), 1992 c.37 (repealed);
- (b) Canadian Environmental Protection Act;
- (c) Fisheries Act, 1985 c. F-14;
- (d) Transportation of Dangerous Goods Act and Regulations, c. 34;
- (e) Migratory Birds Convention Act and Regulations, c. 22;
- (f) Species at Risk Act, c. 29;
- (g) And any other applicable Acts, Regulations and By-laws;
- (h) Applicable Fisheries and Oceans Canada Operational Statements for Manitoba for temporary stream crossings;
- (i) The Department of Fisheries and Oceans Freshwater Intake End-of-Pipe Fish Screen Guidelines, DFO 1995;
- (j) Fisheries and Oceans Policy for the Management of Fish Habitat 1986;
- (k) Federal Policy on Wetland Conservation 1991; and,
- (l) Transportation Association of Canada's Transportation Association of Canada National Guide to Erosion and Sediment Control on Roadway Projects, 2005.

D13.4 Provincial

- (a) The Dangerous Goods Handling and Transportation Act, D12;
- (b) The Endangered Species Act, c. E111;
- (c) The Heritage Resources Act, c. H39.1;
- (d) The Noxious Weeds Act, c. N110;
- (e) The Nuisance Act, c. N120;
- (f) The Pesticides Regulation, M.R. 94/88R
- (g) The Public Health Act, c. P210;
- (h) The Water Protection Act, c. W65;
- (i) Workplace Safety and Health Act, c. W210;
- (j) And current applicable associated regulations;
- (k) And any other applicable Acts, Regulations, and By-laws; and,
- (l) The Manitoba Stream Crossing Guidelines for the Protection of Fish and Fish Habitat, Manitoba Natural Resources and DFO, 1996.

D13.5 Municipal

- (a) The City of Winnipeg Neighbourhood Liveability By-law No. 1/2008;
- (b) The City of Winnipeg Traffic By-law No. 1573/77 and all amendments up to and including 55/2011;
- (c) And any other applicable Acts, Regulations and By-laws;
- (d) City of Winnipeg Best Management Practices Handbook for Activities In and Around the City's Waterways and Watercourses, City of Winnipeg, 2005; and,
- (e) City of Winnipeg Motor Vehicle Noise Policies and Guidelines.

D13.6 The Contractor is advised that the following environmental protection measures apply to the Work.

- (a) Materials Handling and Storage:
 - (i) Storage of construction materials and equipment will be confined within a fenced area or at a location approved by the Engineer or Contract Administrator with environmental protection (e.g., silt fence) as appropriate;
 - (ii) Construction materials will not be deposited or stored on or near watercourses unless written acceptance from the Contract Administrator is received in advance;
 - (iii) Construction materials and debris will be tied down or secured if severe weather and high wind velocities are forecasted. Work shall be suspended during extreme high wind conditions; and,
 - (iv) Construction materials and debris will be prevented from entering watercourses. In the event that materials and/or debris inadvertently enter the land drainage system, the Contractor will be required to remove the material to an appropriate landfill or storage facility and restore the watercourse to its original condition.
- (b) Fuel Handling and Storage:
 - (i) The Contractor will obtain all necessary permits from Manitoba Conservation and Water Stewardship for the handling and storage of fuel products and shall provide copies to the Contract Administrator;
 - (ii) All fuel handling and storage facilities will comply with The Dangerous Goods and Transportation Act Storage and Handling of Petroleum Products Regulation and any local land use permits;
 - (iii) Fuels, lubricants and other potentially hazardous materials as defined in The Dangerous Goods and Transportation Act will be stored and handled within approved storage areas;

- (iv) The Contractor will ensure that any temporary fuel storage areas established for construction of the project are contained by an impermeable dyke and are located a minimum distance of 100 m away from any watercourse. Dykes will be designed, constructed, and maintained to retain not less than 100% of the capacity of the total number of containers or 110% of the largest container, whichever is greatest. The dykes will be constructed of clay or similar impervious material. If this type of material is not available, the dyke will be constructed of locally available material and lined with high-density polyethylene (HDPE). Furthermore, the fuel storage area(s) will be secured by a barrier such as a high fence and gate to prevent vandalism;
 - (v) The Contractor will ensure that all fuel storage containers are inspected daily for leaks and spillage;
 - (vi) Products transferred from the fuel storage area(s) to specific Work sites will not exceed the daily usage requirement;
 - (vii) When servicing requires the drainage or pumping of fuels, lubricating oils or other fluids from equipment, a groundsheet of suitable material (such as HDPE) and size will be spread on the ground to catch the fluid in the event of a leak or spill;
 - (viii) Wash, refuel and service machinery and store fuel and other materials for the machinery 100 m away from watercourses to prevent deleterious substances from entering the water;
 - (ix) The area around storage sites and fuel lines will be distinctly marked and kept clear of snow and debris to allow for routine inspection and leak detection;
 - (x) The deposit of deleterious substances into water frequented by fish is prohibited under the Fisheries Act, 1985. The Contractor will take appropriate precautions to ensure that potentially deleterious substances (such as fuel, hydraulic fluids, oil, sediment, etc.) do not enter any water body;
 - (xi) Machinery is to arrive on Site in a clean condition and is to be maintained free of fluid leaks; and,
 - (xii) A sufficient supply of materials, such as absorbent material and plastic oil booms, to clean up minor spills will be stored nearby on Site. The Contractor will ensure that additional material can be made available on short notice. Additionally, appropriate staff on Site will be trained in proper handling of deleterious liquids (i.e., fueling) and trained on how to prevent and clean-up minor spills.
- (c) Waste Handling and Disposal:
- (i) The construction area will be kept clean and orderly at all times and at the completion of construction;
 - (ii) At no time during construction will personnel 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;
 - (iii) The Contractor will, during and at the completion of construction, clean up the construction area and all resulting debris shall be deposited at a Waste Disposal Ground operating under the authority of Waste Disposal Grounds Regulation, Manitoba Regulation 150/91. Exceptions are liquid industrial and hazardous wastes which require special disposal methods;
 - (iv) On Site volumes of sewage and/or septage will be removed on a weekly basis.
 - (v) The Contractor will ensure sewage, septage and other liquid wastes generated on Site are handled and disposed of by a certified disposal contractor;
 - (vi) Indiscriminate dumping, littering, or abandonment will not take place;
 - (vii) No burning of waste or other materials is permitted;
 - (viii) Clearing debris will be disposed of by chipping and/or mulching with the material being used by the City of Winnipeg for future uses;
 - (ix) The Contractor will use structurally suitable Site excavation material as fill within the project. Should excavated material exceed fill needs, the remainder would be stockpiled for use on other local projects;

- (x) Structurally unsuitable site excavation material will be removed by the Contractor;
 - (xi) Waste storage areas will not be located so as to block natural drainage;
 - (xii) Runoff from a waste storage area will not be allowed to cause siltation of a watercourse;
 - (xiii) Waste storage areas will be left in a neat and finished appearance and/or restored to their original condition to the satisfaction of the Contract Administrator;
 - (xiv) Equipment will not be cleaned near watercourses; contaminated water from onshore cleaning operations will not be permitted to enter watercourses;
 - (xv) The Contractor will notify and receive written approval from the Contract Administrator prior to discharge from any dewatered areas. The discharge will be released into a well-vegetated area, filter bag, settling basin, or storm sewer system to remove suspended material and other deleterious substances from the discharge before it finds its way into any watercourse. Discharge from dewatering areas may require approved disposal via the sanitary sewer system or disposal truck in accordance with Construction Specifications, at the request of the Contract Administrator; and,
 - (xvi) Flows will be dissipated so that dewatering discharges minimize erosion at the discharge point.
- (d) Dangerous Goods/Hazardous Waste Handling and Disposal:
- (i) Dangerous goods/hazardous waste are identified by, and will be handled according to, The Dangerous Goods Handling and Transportation Act and Regulations;
 - (ii) The Contractor will be familiar with The Dangerous Goods Handling and Transportation Act and Regulations;
 - (iii) The Contractor will have on Site staff that is trained and certified in the handling of the dangerous/hazardous goods, when said dangerous/hazardous goods are being utilized on Site for the performance of the Work;
 - (iv) Different waste streams will not be mixed;
 - (v) Disposal of dangerous goods/hazardous wastes will be at approved hazardous waste facilities;
 - (vi) Liquid hydrocarbons will not be stored or disposed of in earthen pits on Site;
 - (vii) Used oils will be stored in appropriate drums, or tankage until shipment to waste oil recycling centres, incinerators, or secure disposal facilities approved for such wastes;
 - (viii) Used oil filters will be drained, placed in suitable storage containers, and buried or incinerated at approved hazardous waste treatment and disposal facilities;
 - (ix) Dangerous goods/hazardous waste storage areas will be located at least 100 m away from the high water line and be dyked;
 - (x) Dangerous goods/hazardous waste storage areas will not be located so as to block natural drainage;
 - (xi) Runoff from a dangerous goods/hazardous waste storage area will not be allowed to cause siltation of a watercourse; and,
 - (xii) Dangerous goods/hazardous waste storage areas will be left in a neat and finished appearance and/or restored to their original condition to the satisfaction of the Contract Administrator.
- (e) Emergency Response:
- (i) The Contractor will ensure that due care and caution is taken to prevent spills;
 - (ii) The Contractor will report all major spills of petroleum products or other hazardous substances with significant impact on the environment and threat to human health and safety (as defined in Table 1 below) to Manitoba Conservation and Water Stewardship, immediately after occurrence of the environmental accident, by calling the 24-hour emergency phone number (204) 945-4888;

- (iii) The Contractor will designate a qualified supervisor as the on Site emergency response coordinator for the project. The emergency response coordinator will have the authority to redirect manpower in order to respond in the event of a spill; and,
- (iv) The following actions will 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 on Site emergency response coordinator:
 - (i) Notify emergency-response coordinator of the accident:
 - ◆ Identify exact location and time of the accident.
 - ◆ Indicate injuries, if any.
 - ◆ Request assistance as required by magnitude of accident [Manitoba Conservation and Water Stewardship 24-hour Spill Response Line (204) 945-4888, Police, Fire Department, Ambulance, company backup].
 - (ii) Attend to public safety:
 - ◆ Stop traffic, roadblock/cordon off the immediate danger area.
 - ◆ Eliminate ignition sources.
 - ◆ Initiate evacuation procedures if necessary.
 - (iii) 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, sewers and manholes.
 - (iv) 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 absorbent 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.
 - (v) Resume any effective action to contain, clean up, or stop the flow of the spilled product;
 - (vi) The emergency response coordinator will ensure that all environmental accidents involving contaminants shall be documented and reported to Manitoba Conservation and Water Stewardship according to The Dangerous Goods Handling and Transportation Act Environmental Accident Reports Regulation 439/87;
 - (vii) When dangerous goods are used on Site, materials for containment and cleanup of spill material (e.g., absorbent materials, plastic oil booms, and oversized recovery drums) shall be available on Site;
 - (viii) Minor spills of such substances that may be contained on land with no significant impact on the environment may be responded to with in-house resources without formal notification to Manitoba Conservation and Water Stewardship; and,
 - (ix) City emergency response, 9-1-1, shall be used if other means are not available.

Table 1 - Environmental Accident Reporting Reportable Quantities of Spills that must be Reported to Manitoba Conservation and Water Stewardship [(204) 944-4888]		
Classification	Hazard	Reportable Quantity or Level
1	Explosives	All
2.1	Compressed Gas (Flammable)	100 L*
2.2	Compressed Gas	100 L*
2.3	Compressed Gas (Toxic)	All
2.4	Compressed Gas (Corrosive)	All
3	Flammable Liquids	100 L
4	Flammable Solids	1 Kg
5.1 Packing Groups I and II	Oxidizer	1 Kg or 50 L
Packing Group III	Oxidizer	5 Kg or 50 L
5.2	Organic Peroxide	1 Kg or 1 L
6.1 Packing Group I	Acute Toxic	1 Kg or 1 L
Packing Groups II and III	Acute Toxic	5 Kg or 5 L
6.2	Infectious	All
7	Radioactive	Any discharge or level exceeding 10 m Sv/h at the package surface and 200 uSv/h at 1 m from the package surface
8	Corrosive	5 Kg or 5 L
9.1	Miscellaneous (except PCB Mixtures)	50 Kg
9.1	PCB Mixtures	500 grams
9.2	Aquatic Toxic	1 Kg or 1 L
9.3	Wastes (Chronic Toxic)	5 Kg or 5 L

* Container Capacity (refers to container water capacity)

Source: *Environmental Accident Reporting Regulation M.R. 439/87*

(f) Noise and Vibration:

- (i) Noise generating activities will be limited to the hours indicated in the City of Winnipeg Neighbourhood Liveability By-law No. 1/2008. The activities will generally be restricted to 7:00 a.m. to 7:00 p.m. weekdays with written permission of the Contract Administrator and the City of Winnipeg for any after-hours or weekend work required for special cases. No extended or alternative working hours/dates will be permitted for pile driving activities;
- (ii) The Contractor will be responsible for scheduling Work to avoid potential noise problems and/or employ noise reduction measures to reduce noise to acceptable limits. The Contractor will also demonstrate to the Contract Administrator that Works to be performed during the night-time period, on Sundays, and Holidays will not exceed the approved limit;
- (iii) The Contractor will locate stationary noise generating equipment (e.g., generators) away from sensitive receptors and wildlife areas; and,
- (iv) Construction vehicles and equipment will adhere to posted speed limits.

(g) Dust and Emissions:

- (i) Construction vehicles and machinery will be kept in good working order by the Contractor through the use of inspection and maintenance;
- (ii) The Contractor will minimize construction equipment idling times and turn off machinery, when feasible;

- (iii) Dust control practices implemented by the Contractor during construction will include regular street cleaning and dampening of construction access roads and Works areas with water or approved chemicals at an adequate frequency to prevent the creation of dust;
 - (iv) Only water or chemicals approved by the Contract Administrator will be used for dust control. The use of waste petroleum or petroleum by-products is not permitted;
 - (v) The Contractor will ensure that trucks which are used to haul excavated material and backfill material to and from the Work Site utilize tarpaulin covers during transport to prevent material from falling onto the street and creating dust; and,
 - (vi) Stockpiled soils will be wetted down or covered with tarpaulin covers to prevent the creation of dust, when appropriate.
- (h) Erosion Control:
- (i) The Contractor will develop a sediment control plan prior to beginning construction in adherence with the Transportation Association of Canada National Guide to Erosion and Sediment Control on Roadway Projects, 2005 and to the satisfaction of the Contract Administrator;
 - (ii) Sediment control will be applied to all in water works to prevent the release or re-suspension of sediments to the watercourse. A turbidity curtain will be used to contain sediments from coffer dam construction/removal and riprap placement, if warranted. This turbidity curtain should isolate as small an area as possible to complete the works, and should be completely removed once turbidity within the isolated area has returned to background levels;
 - (iii) The Contractor will inspect all sediment control structures daily during heavy construction activity in the areas of the structures and after a heavy rainfall to ensure their continued integrity;
 - (iv) Exposure of soils along drain slopes will be kept to the minimum practical amount, acceptable to the Contract Administrator;
 - (v) Effective sediment and erosion control measures (e.g., straw mulch, erosion control blankets, interceptor ditches) will be used both during construction and until vegetation is re-established to prevent sediment-laden runoff from entering, wetlands and other watercourses;
 - (vi) All areas disturbed during construction will be landscaped and revegetated with native and/or introduced plant species in order to restore and enhance the Site and protect against soil erosion unless otherwise indicated;
 - (vii) The disturbed surface will be revegetated as soon as possible and done so as to create a dense root system in order to defend against soil erosion on the right-of-way and any other disturbed areas susceptible to erosion;
 - (viii) The loss of topsoil and the creation of excessive dust by wind during construction will be prevented by the addition of temporary cover crop, water or tackifier, if conditions so warrant;
 - (ix) The Contractor will routinely inspect all erosion and sediment control structures and immediately carry out any necessary maintenance. Several inspections will be performed during rainy days; and,
 - (x) Construction activities will be avoided during periods of high winds to prevent erosion and the creation of dust.
- (i) Runoff Control:
- (i) Measures will be undertaken to ensure that runoff containing suspended soil particles is minimized from entering the land drainage system to the extent possible to the satisfaction of the Contract Administrator;
 - (ii) Areas that are heavily disturbed and vulnerable to erosion or gullyng will be dyked to redirect surface runoff around the area prior to spring runoff;
 - (iii) Construction activities on erodible slopes will be avoided during spring runoff and heavy rain falls; and,
 - (iv) Soil and fill will not be stockpiled on immediate watercourse bank areas.

- (j) Fish:
- (i) The Contractor will adhere to all of the protection measures below , adhere to the DFO No Net Loss Policy for fish habitat;
 - (ii) Due to the presence of spawning fish species no in-stream works will occur between April 1 and June 15 of any given year;
 - (iii) If possible, culvert works will be constructed during periods of no flow or very low flow. Flowing water should be diverted around the construction area using a dam and bypass pump or temporary flume (culvert). Water will be diverted in a manner that avoids sediment generation to downstream areas and does not alter the volume of flow in the watercourse. Use coffer dams made of non-earthen material such as aquadams, sand bags, sheet pile or clean granular material wrapped in poly-plastic or other suitable isolation materials. Ensure any pump inlets are appropriately screened following the DFO Freshwater Intake End-of-Pipe Fish Screen Guidelines. Ensure all isolation materials are completely removed from the watercourse once construction is complete;
 - (iv) Any fish trapped within the isolated area will be captured and returned to the watercourse unharmed. Fish includes fin fish, crayfish and mussels (clams);
 - (v) All culvert works will be limited to within Happyland Park property;
 - (vi) A buffer of vegetation will be maintained when working along waterways, where possible;
 - (vii) Culverts will be installed according to the Manitoba Stream Crossing Guidelines for the Protection of Fish and Fish Habitat (Manitoba Natural Resources and DFO, 1996). The culverts will be embedded a minimum of 0.3 m or 10% of culvert vertical diameter, whichever is greater to maintain connectivity during lower flows in this forage fish stream;
 - (viii) The duration of Work and amount of disturbance to the bed and banks of the water body will be minimized;
 - (ix) Use only clean rock for armouring the channel areas, and haul it in from an appropriate land-based source. Avoid using poor quality limestone that breaks down quickly when exposed to the elements or acid generating rocks typical from metal mines. All rock will be clean and free of fine materials and of appropriate size to resist displacement during high flow events;
 - (x) The rock is placed such that it does not constrict the channel or change the hydraulics in a way that might damage the bed and/or banks of the watercourse or interfere with fish passage;
 - (xi) Where grading of stream banks is required they are sloped by pulling material back from the water's edge. Stabilize any waste materials removed from the Work Site, above the ordinary high water mark, to prevent them from entering any water body. Spoil piles could be contained with silt fence, flattened, covered with biodegradable mats or tarps, and/or planted with preferably native grass or shrubs;
 - (xii) Excavation of the water body bed will be limited to within the road right of way and is the minimum required for the proper placement of the culvert crossing;
 - (xiii) Shoreline vegetation will be retained to the greatest extent possible to maximize the stability of the banks;
 - (xiv) Operate machinery from outside of the water and in a manner that minimizes disturbance to the banks of the water body; and,
 - (xv) The intake of any pumps used in surface waters will be screened to meet the Department of Fisheries and Oceans' Freshwater Intake End-of-Pipe Fish Screening Guidelines (1995) and water withdrawal rates will not exceed 10% of the instantaneous stream flow at the time.
- (k) Wildlife:
- (i) No clearing of trees, shrubs or vegetation is permitted between May 1 and July 31st of any year to protect nesting and breeding season for migratory birds and other wildlife, unless otherwise identified by a Project Biologist;

- (ii) No one will disturb, move or destroy migratory birds' nests;
 - (iii) If a nest is encountered, Work will cease in the immediate area and the Contract Administrator will be contacted for further direction; and,
 - (iv) In the event that species at risk are encountered during the project construction, all Work will cease in the immediate area, the Site will be made safe and the Contract Administrator will be contacted.
- (l) Wetlands:
- (i) The Contractor will implement the following environmental protection measures to prevent the new loss of wetland functions, in accordance with the Federal Policy on Wetland Conservation:
 - (i) The Contractor will clearly mark wetland limits near the construction footprint prior to commencement of the Work and will remain marked throughout the construction period.
 - (ii) Wetlands will not be disturbed without written permission from the Contract Administrator.
 - (iii) Should additional wetlands be encountered during construction, construction in that area will halt until the area is properly marked.
 - (iv) Construction equipment will avoid the marked wetland areas as much as possible, where feasible.
 - (v) The Contractor will not discharge water into adjacent wetlands without written permission from the Contract Administrator, having confirmed the quality of the water to be discharged and the capacity of the receiving wetland.
 - (vi) Any fish located within the wetlands to be disturbed by the project will be captured and returned to a nearby watercourse unharmed.
- (m) Vegetation:
- (i) The Contractor will clearly mark the disturbance limit prior to commencement of the Work and will remain marked throughout the construction period;
 - (ii) Vegetation will not be disturbed without written permission from the Contract Administrator;
 - (iii) The Contractor will limit the removal of trees and snags (standing dead trees); surface disturbance and vegetation clearing;
 - (iv) Herbicides and pesticide will not be used adjacent to any surface watercourse.
 - (v) Trees or shrubs will not be felled into watercourses;
 - (vi) Areas where vegetation is removed during clearing, construction decommissioning activities, will be revegetated as soon as possible in accordance with the landscaping plans forming part of the Contract, or as directed by the Contract Administrator; and,
 - (vii) Trees damaged during construction activities will be examined by bonded tree care professionals. Viable trees damaged during construction activities will be pruned according to good practices by bonded tree care professionals.
- (n) Landscaping:
- (i) Construction waste (excluding common construction gravel, sand, etc.) will be removed to a minimum depth of 600mm below final grade in all areas that are to be backfilled with suitable material and revegetated in accordance with the City of Winnipeg Standard Construction Specifications;
 - (ii) Topsoil will be stripped prior to construction and salvaged for use during landscaping. Surplus topsoil will be properly stockpiled for use in other projects; and,
 - (iii) The Contractor will adhere to the landscaping plan for the maintenance of initial stages and development stages of the plant community.

- (o) Heritage Resources:
- (i) If heritage material is located during the construction and soil removal process, all Work will cease and the Contractor will immediately contact the Contract Administrator. The Historic Resource Branch, Manitoba Culture, Heritage, Tourism and Sport or the Project Archaeologist, will be contacted by the Contract Administrator to determine the nature and extent of the archaeological material and to arrange for its recovery. The archaeological remains will be recovered by salvage excavation upon authorization by the Contract Administrator, having consulted with the Historic Resources Branch, Manitoba Culture, Heritage, Tourism and Sport;
 - (ii) The Contractor will be prepared to continue his Work elsewhere on the project while the Archaeologist investigates the find and determines its heritage value;
 - (iii) The Contractor is advised that he may be denied access to such areas of the project until such time as a thorough archaeological investigation is conducted or the find is deemed to have no heritage value;
 - (iv) Construction and excavation Work will not resume until the Contract Administrator, having consulted with the Historic Resources Branch, Manitoba Culture, Heritage, Tourism and Sport, or the Project Archaeologist, authorizes a resumption of Work;
 - (v) If human remains are uncovered during the construction and soil removal process, all Work will cease and the Heritage Resources Branch, Manitoba Culture, Heritage, Tourism and Sport will be contacted by the Contract Administrator. The Historic Resources Branch will contact the City of Winnipeg Police;
 - (vi) If the human remains are not considered forensic, (i.e., no foul play suspected), they will be removed by the Historic Resources Branch, Manitoba, Culture, Heritage, Tourism and Sport or the Project Archaeologist and turned over to the Province;
 - (vii) If the human remains are considered forensic, the City of Winnipeg Police will be responsible for their removal; and,
 - (viii) Additional information may be obtained by contacting: Archaeological Assessment Services, Historic Resources Branch.
- (p) Construction Traffic:
- (i) Workforce parking will be limited to the areas designated for such as detailed in the Contract Documents, or as otherwise may be directed by the Contract Administrator;
 - (ii) Large equipment will be equipped with flashing beacons and/or an audible "back up" warning device that is audible when the transmission is in reverse;
 - (iii) The Contractor will adhere to the Standard Provisions of the Standard Construction Specifications, and of the Manual of Temporary Traffic Control in Work Areas on City Streets of the City of Winnipeg Public Works Department;
 - (iv) The Contractor's laydown area, construction Site and access road will be fenced and gated to secure the Site and materials and to discourage pedestrian entrance to construction areas and to control any potential hazard to the public, particularly children; and,
 - (v) For circumstances where the Contract Administrator has accepted Site access of special equipment or material, the Contractor will provide adequate flagmen for traffic control in the vicinity of any public buildings.
- (q) Access:
- (i) The Contractor will maintain access to affected residential properties; and,
 - (ii) The Contractor will provide or maintain general and off-street access to any affected business during construction.

SCHEDULE OF WORK

D14. COMMENCEMENT

- D14.1 The Contractor shall not commence any Work until he/she is in receipt of a letter of intent from the Award Authority authorizing the commencement of the Work.

- D14.2 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 D8;
 - (ii) evidence of the workers compensation coverage specified in C6.15;
 - (iii) the Safe Work Plan specified in D9;
 - (iv) evidence of the insurance specified in D10;
 - (v) the performance security specified in D11; and,
 - (vi) the Detailed Work Schedule specified in D12;
 - (vii) the Environmental Protection Plan specified in D13.
 - (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.

D14.3 The Contractor shall not commence the Work on the Site before September 1, 2014.

D15. SUBSTANTIAL PERFORMANCE

D15.1 The Contractor shall achieve Substantial Performance by October 30, 2014.

D15.2 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.

D15.3 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.

D16. TOTAL PERFORMANCE

D16.1 The Contractor shall achieve Total Performance by November 15, 2014.

D16.2 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.

D16.3 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.

D17. LIQUIDATED DAMAGES

D17.1 If the Contractor fails to achieve Total Performance in accordance with the Contract by the day fixed herein for Total Performance, the Contractor shall pay the City three hundred eighty five dollars (\$385) per Calendar Day for each and every Calendar Day following the day fixed herein for Total Performance during which such failure continues.

D17.2 The amount specified for liquidated damages in D17.1 is based on a genuine pre-estimate of the City's damages in the event that the Contractor does not achieve Total Performance by the day fixed herein for same.

D17.3 The City may reduce any payment to the Contractor by the amount of any liquidated damages assessed.

CONTROL OF WORK

D18. PRIME CONTRACTOR – THE WORKPLACE SAFETY AND HEALTH ACT (MANITOBA)

D18.1 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).

D19. THE WORKPLACE SAFETY AND HEALTH ACT (MANITOBA) – QUALIFICATIONS

D19.1 Further to B11.4, the Contractor/Subcontractor must, throughout the term of the Contract, have a Workplace Safety and Health Program meeting the requirements of The Workplace Safety and Health Act (Manitoba). At any time during the term of the Contract, the City may, at its sole discretion and acting reasonably, require updated proof of compliance, as set out in B11.4.

D20. LAYOUT OF THE WORKS

D20.1 Further to C6, the Contract Administrator will provide the basic centrelines and an elevation of the works as shown for the culvert structure on the Drawings.

D20.2 The Contractor shall be responsible for the true and proper layout of the Work and for the correctness of the location, levels, dimensions, and alignment of all aspects of the Work. The Contractor shall provide all required instruments and competent personnel for performing all layouts.

D20.3 Should any error appear or arise in location, levels, dimensions, and/or alignments during the course of the Work, the Contractor shall promptly rectify such errors to the satisfaction of the Contract Administrator, at their own expense.

D20.4 The Contract Administrator shall be notified at least one (1) Working Day prior to any Work being commenced in order to have the option to check and review all elevations and layouts at his discretion.

D20.5 The Contractor shall carefully protect and preserve all benchmarks, stakes, and other items used in giving the basic data supplied by the Contract Administrator. Any such benchmarks or stakes removed or destroyed by the Contractor, without the consent of the Contract Administrator, shall be replaced by the Contract Administrator at the expense of the Contractor.

D20.6 The Contractor shall arrange and carry on his Work so as not to conflict with the collection of any data in any way by the Contract Administrator. The Contractor shall adjust Work and/or remove any interference as directed by the Contract Administrator at the expense of the Contractor.

D21. PAYMENT

D21.1 Further to C12, the City may at its option pay the Contractor by direct deposit to the Contractor's banking institution.

WARRANTY

D22. WARRANTY

D22.1 Notwithstanding C13.2, the warranty period shall begin on the date of Total Performance and shall expire two (2) years thereafter unless extended pursuant to C13.2.1 or C13.2.2, in which case it shall expire when provided for thereunder.

FORM H1: PERFORMANCE BOND
(See D11)

KNOW ALL MEN BY THESE PRESENTS THAT

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

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

_____ dollars (\$_____)

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

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

BID OPPORTUNITY NO. 528-2014

2014 BRIDGE MAINTENANCE PROGRAM – DUGALD DRAIN CULVERT REPLACEMENT AT
HAPPYLAND PARK

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

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

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

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

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

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

_____ day of _____, 20____.

SIGNED AND SEALED
in the presence of:

(Witness as to Principal if no seal)

(Name of Principal)

Per: _____ (Seal)

Per: _____

(Name of Surety)

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

**FORM H2: IRREVOCABLE STANDBY LETTER OF CREDIT
(PERFORMANCE SECURITY)**
(See D11)

(Date)

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

RE: PERFORMANCE SECURITY - BID OPPORTUNITY NO. 528-2014

2014 BRIDGE MAINTENANCE PROGRAM – DUGALD DRAIN CULVERT REPLACEMENT AT
HAPPYLAND PARK

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

(Name of Contractor)

(Address of Contractor)

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

_____ Canadian dollars.

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

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

Partial drawings are permitted.

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

(Address)

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

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

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

(Date)

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

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

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

(Name of bank or financial institution)

Per: _____
(Authorized Signing Officer)

Per: _____
(Authorized Signing Officer)

PART E - SPECIFICATIONS

GENERAL

E1. APPLICABLE SPECIFICATIONS AND DRAWINGS

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

<u>Specification No.</u>	<u>Specification Title</u>
000111	Table of Contents

DIVISION 26 – ELECTRICAL REQUIREMENTS

260501	Common Work Results - Electrical
260520	Wire and Box Connectors (0-1000 V)
260521	Wires and Cables (0-1000 V)
260528	Grounding - Secondary
260534	Conduits, Conduit Fastenings and Conduit Fittings
260544	Installation of Cables in Trenches and in Ducts

<u>Drawing No.</u>	<u>Drawing Name/Title</u>
C342-14-00	Cover Sheet
C342-14-01	Demolition Plan
C342-14-02	Horizontal Geometry
C342-14-03	General Arrangement Plan
C342-14-04	Cross Sections and Elevations
C342-14-05	Sections and Details

E2. SOILS INVESTIGATION REPORT

- E2.1 Further to C3.1, the geotechnical report is provided to aid the Contractor's evaluation of the pavement structure and/or existing soil conditions. The geotechnical report is contained in Appendix 'A'.

E3. HYDRAULICS REPORT

- E3.1 The hydraulics report is provided to aid the Contractor's evaluation of the hydraulic conditions at the site. The hydraulic report is contained in Appendix 'B'.

GENERAL REQUIREMENTS

E4. MOBILIZATION AND DEMOBILIZATION

- E4.1 Description

- E4.1.1 This Specification shall cover all operations relating to the mobilization and demobilization of the Contractor to the Site, as specified herein.
- E4.1.2 The Work to be done by the Contractor under this Specification shall include the furnishing of all superintendence, overhead, labour, materials, equipment, tools, supplies, and all things necessary for and incidental to the satisfactory performance and completion of all works hereinafter specified.
- E4.2 Scope of Work
- (a) The Work under this Specification shall include but not be limited to:
- (i) Submission of site layout plan;
 - (ii) Mobilizing and demobilizing on-site Work facilities;
 - (iii) Maintaining and removing any temporary access roadways;
 - (iv) Supplying and installing temporary secure fencing around the Site;
 - (v) Traffic and pedestrian control as detailed in E8;
 - (vi) Creek maintenance as detailed in E10; and,
 - (vii) Restoring all Site facilities.
- E4.3 Materials
- E4.3.1 The Contractor shall be responsible for the supply, safe storage and handling of all materials as set forth in this Specification. All materials to be handled in a careful and workmanlike manner, to the satisfaction of the Contract Administrator.
- E4.3.2 All materials supplied under this Specification shall be of a type approved by the Contract Administrator and shall be subject to inspection and testing by the Contract Administrator.
- E4.3.3 The Contractor's Site supervisor is required to carry, at all times, a cellular telephone, with voice mail.
- E4.3.4 This section also includes travel and accommodation, set-up and demobilization of Site offices, storage conveniences and other temporary facilities, construction plant, and other items not required to form part of the permanent works and not covered by other prices.
- E4.4 Equipment
- E4.4.1 All equipment shall be of a type acceptable to the Contract Administrator and shall be kept in good working order.
- E4.5 Construction Methods
- E4.5.1 Layout of On-Site Work Facilities
- (a) The Contractor shall mobilize all on-site Work and other temporary facilities.
 - (b) Upon completion of construction activities, the Contractor shall remove all on-site Work and other temporary facilities.
- E4.5.2 Secure Site Fencing
- (a) A minimum 1.8 m high chain-link secure fence around the Site lay-down and Work Site areas shall be installed prior to commencement of site activities.
 - (b) The fencing shall remain secure and in place during all construction facilities.
 - (c) The fencing shall be removed upon demobilization of on-site Work facilities.
 - (d) Fencing shall be complete with lockable gates
- E4.5.3 Access Roadway
- (a) The Contractor shall maintain any access roadway they install.
 - (b) The access road shall be maintained on a regular basis to provide continual unrestricted site access, to the satisfaction of the Contract Administrator.

- (c) Upon completion of the Work, the area shall be restored to its original condition. The Limits of Work Area will be reviewed at the Pre-Construction Meeting. If the Contractor requests a Change in the Limits of the Work Area, they shall do so formally in writing at least ten (10) Business Days prior to mobilization. The Contract Administrator will respond within five (5) Business Days with a response; the Contract Administrator has the right to dismiss the request.

E4.5.4 Restoration of Existing Facilities

- (a) Upon completion of the Work and demobilization, the Contractor shall restore existing facilities.

E4.6 Quality Control

E4.6.1 Inspection

- (a) All workmanship and all materials furnished and supplied under this Specification are subject to close and systematic inspection and testing by the Contract Administrator including all operations from the selection and production of materials through to final acceptance of the specified Work;
- (b) The Contractor shall be wholly responsible for the control of all operations incidental thereto, notwithstanding any inspection or acceptance that may have been previously given; and,
- (c) The Contract Administrator reserves the right to reject any materials or Works which are not in accordance with the requirements of this Specification.

E4.6.2 Access

- (a) The Contractor shall allow the Contract Administrator free access to all parts of the Work at all times. The Contractor shall supply samples to the Contract Administrator or his inspector for testing purposes as required. There will be no charge to the City for samples taken.

E4.7 Measurement and Payment

E4.7.1 Mobilization and demobilization will not be measured and will be paid for at the Contract Lump Sum Price for "Mobilization and Demobilization", which price shall be payment in full for performing all operations herein described and all other items incidental to the Work included in this Specification and accepted by the Contract Administrator.

E4.7.2 Mobilization and demobilization will be paid for at a percentage of the Contract Lump Sum Price, measured as specified herein. These percentages shall be as follows:

- (a) 30% when the Contract Administrator is satisfied that construction has commenced;
- (b) 40% when Substantial Performance has been met; and,
- (c) 30% upon completion of the project.

E5. PROTECTION OF EXISTING TREES

E5.1 The Contractor shall take the following precautionary steps to prevent damage from construction activities to existing trees within the limits of the construction area:

- (a) The Contractor shall not stockpile materials and soil or park vehicles and equipment within 2 m of trees;
- (b) Trees identified to be at risk by the Contract Administrator are to be strapped with 25 x 100 x 2400 mm wood planks, or suitably protected as approved by the Contract Administrator;
- (c) Excavation shall be performed in a manner that minimizes damage to the existing root systems. Where possible, excavation shall be carried out such that the edge of the excavation shall be a minimum of 1.5 times the diameter (measured in inches), with the

outcome read in feet, from the closest edge of the trunk. Where roots must be cut to facilitate excavation, they shall be pruned neatly at the face of excavation;

- (d) Operation of equipment within the dripline of the trees shall be kept to the minimum required to perform the work required. Equipment shall not be parked, repaired, refuelled; construction materials shall not be stored, and earth materials shall not be stockpiled within the driplines of trees. The dripline of a tree shall be considered to be the ground surface directly beneath the tips of its outermost branches. The Contractor shall ensure that the operations do not cause flooding or sediment deposition on areas where trees are located; and,
- (e) Work on-site shall be carried out in such a manner so as to minimize damage to existing tree branches. Where damage to branches does occur, they shall be neatly pruned.

E5.2 All damage to existing trees caused by the Contractor's activities shall be repaired to the requirements and satisfaction of the Contract Administrator and the City Forester or his/her designate.

E5.3 Except as required in clause E5.1(c) and E5.1(e), Elm trees shall not be pruned at any time between April 1 and July 31.

E5.4 No separate measurement or payment will be made for performing all operations herein described and all other items incidental to the Work described.

E6. WATER OBTAINED FROM THE CITY

E6.1 Further to clause 3.7 of CW 1120, the Contractor shall pay for all costs, including sewer charges, associated with obtaining water from the City in accordance with the Waterworks and Sewer By-laws.

E7. VERIFICATION OF WEIGHTS

E7.1 All material which is paid for on a weight basis shall be weighed on a scale certified by Consumer and Corporate Affairs, Canada.

E7.1.1 All weight tickets shall have the gross weight and the time and date of weighing printed by an approved electro/mechanical printer coupled to the scale.

E7.1.2 The tare weight and net weight may either be hand written or machine printed. All weights, scales and procedures shall be subject to inspection and verification by the Contract Administrator. Such inspection and verification may include, but shall not be limited to:

- (a) Checking Contractor's scales for Consumer and Corporate Affairs certification seals;
- (b) Observing weighing procedures;
- (c) Random checking of either gross or tare weights by having such trucks or truck/trailer(s) combinations as the Contract Administrator shall select weighed at the nearest available certified scale; and,
- (d) Checking tare weights shown on delivery tickets against a current tare.

E7.1.3 No charge shall be made to The City for any delays or loss of production caused by such inspection and verification.

E7.2 The Contractor shall ensure that each truck or truck/trailer(s) combination delivering material which is paid for on a weight basis carries a tare not more than one (1) month old.

E7.2.1 The tare shall be obtained by weighing the truck or truck/trailer(s) combination on a certified scale and shall show:

- (a) Upon which scale the truck or truck/trailer(s) combination was weighed;
- (b) The mechanically printed tare weight;
- (c) The license number(s) of the truck and trailer(s); and,

- (d) The time and date of weighing.

E8. TRAFFIC AND PEDESTRIAN CONTROL

E8.1 Description

- (a) The Work covered under this item shall include all items relating to traffic and pedestrian control at the Site; and,
- (b) The Work to be done by the Contractor under this Specification shall include the furnishing of all superintendence, overhead, labour, materials, equipment, tools, supplies and all things necessary for and incidental to the satisfactory performance and completion of all Work as hereinafter specified.

E8.2 Notification

- (a) The Contractor shall notify the City of Winnipeg Customer Service at 986-5640, two (2) days in advance of traffic lane closures.

E8.3 Construction Methods

E8.3.1 General

- (a) Traffic control shall be carried out in accordance with the latest edition of the "Manual of Temporary Traffic Control in Work Areas on City Streets," issued by the City of Winnipeg and as specified herein;
- (b) Traffic lane and sidewalk closures shall only be undertaken if necessary and as approved by the Contract Administrator;
- (c) Barricades shall be supplied, installed, and maintained by the Contractor and include the telephone numbers(s) at which the Contractor can be reached twenty-four (24) hours per day, seven (7) days per week; and,
- (d) Improper signing will be sufficient reason to immediately shutdown the entire job.

E8.3.2 Specific

- (a) The pedestrian pathway shall be permanently closed during construction; and,
- (b) Signage shall be placed to direct pedestrians to the Archibald Street and Marion Street intersection.

E8.4 Measurement and Payment

- E8.4.1 Traffic and pedestrian control will be considered incidental to E4 Mobilization and Demobilization and no additional measurement or payment will be made.
- E8.4.2 Further to clause 3.3 of CW 1130, when Total Performance is not achieved in the year the Contract is commenced, the Contractor shall temporarily repair any Work commenced and not completed to the satisfaction of the Contract Administrator. The Contractor shall maintain the temporary repairs in a safe condition as determined by the Contract Administrator until permanent repairs are completed. The Contractor shall bear all costs associated with temporary repairs and their maintenance.

E9. SITE SECURITY

- E9.1 During the project the Contractor shall be responsible for maintaining only authorized Site access twenty-four (24) hours a day. Any existing security fencing, etc. that may be altered during construction will need to have an equivalent replacement upon the completion of the Project. No separate measurement or payment shall be made for this work.

E10. MAINTAIN EXISTING DRAIN FLOWS, FLOW CONTROL DIVERSIONS AND BYPASS PUMPING

E10.1 Description

- (a) This specification shall cover the maintaining of flows in the existing drain; and,
- (b) The Work to be done by the Contractor under this Specification shall include the furnishing of all superintendence, overhead, labour, materials, equipment, tools, supplies, and all things necessary for and incidental to the satisfactory performance and completion of all works as hereinafter specified.

E10.2 Materials

- (a) The Contractor shall be responsible for the supply, safe storage and handling of all materials as set forth in this specification. All material shall be handles in a careful and workmanlike manner.

E10.3 Construction Methods

- (a) The Work shall include, but not limited to:
 - (i) Planning the Work to identify when and how the in-stream work will be carried out. It is the intent to carry out the work during the fall when flows are minimal and provisions to maintain stream flows is less;
 - (ii) Design of the creek flow maintenance methods including the preparation and submission for review and approval by the Contract Administrator of a Drain Flow Maintenance Plan comprised of drawings and/or description of the maintenance methods;
 - (iii) Maintenance of the drain flows for the duration of construction;
 - (iv) Removal of materials and/or equipment needed to maintain drain flows, at the end of their use; and,
 - (v) Confinement of suspended matter in the drain water generated at the Site in accordance with D13 Environmental Protection Plan.
- (b) The Contractor must comply with all regulatory provisions including the requirements stated in any DFO guidelines/regulations or permits;
- (c) It is conceived that the Contractor may install a berm or sand bag dike at both the upstream and downstream limits of Work and install and maintain temporary by-pass pumps to handle the flows in order to install the Work "in-the-dry". The Contractor shall be required to supply and operate at least 1-100mm diameter flood pump;
- (d) If the flows encountered during the Construction period exceed the capacity of the 1-100mm diameter flood pump, and the Contractor has complied with all other requirements of this Specification, the Contractor will be reimbursed for any additional diversion works, as approved by the Contract Administrator in accordance with GC:7.4(c);
- (e) It is also conceived that once an in-stream section of the Works has been installed and approved by the Contract Administrator, the Contractor may then use that completed section of the Works to temporarily or permanently flume the flows through that completed section without the need to maintain by-pass pumping;
- (f) Berms or cofferdams if used shall be constructed of non-erodible material along the faces that will be exposed to the flow. Non-erodible material shall be approved by the Contract Administrator; and,
- (g) Between the dates of April 1 and June 15 of any given year, fish shall be afforded full access through the Site via a naturally flowing channel. In this time period, no construction activity impacting the drain affecting fish mobility or habitat will be permitted.

E10.4 Measurement and Payment

- E10.4.1 Creek flow maintenance will be considered incidental to E4 Mobilization and Demobilization and no additional measurement or payment will be made.

E11. DANGEROUS WORK CONDITIONS

- E11.1 Further to clause GC 6.26 of the General Conditions, the Contractor shall be aware that underground chambers, manholes, sewers and pumping stations are considered a confined space and shall follow the "Guidelines for confined Entry Work" as published by the Manitoba Workplace Safety and Health Division.
- E11.2 The Contractor shall be aware of the potential hazards that can be encountered in manholes, sewers and pumping stations such as explosive gases, toxic gases and oxygen deficiency.
- E11.3 The air in a confined space must be tested before entry and continuously during the time that personnel are inside the space. Equipment for continuous monitoring of gases must be explosion-proof and equipped with a visible and audible alarm. The principal tests are for oxygen deficiency, explosion range and toxic gases. Testing equipment must be calibrated in accordance with manufacturer's specifications.
- E11.4 Ventilate all confined spaces including underground chambers, tunnels, pipes and shafts as required and approved by the Manitoba Workplace Safety and Health Act (the "Act"). If no ventilation is supplied, a worker must wear a respirator or supplied air to enter the confined space.
- E11.5 Workers must wear a respirator or supplied air at all times when entering a chamber, manhole or sewer where live sewage is present.
- E11.6 Provide a photo ionization detector (PID) on Site at all times to monitor potential hydrocarbon vapours in the confined spaces. The gas detector and safety equipment conforming to the Act shall be made available to the Contract Administrator for his use during inspections.
- E11.7 The Contract Administrator may issue a stop work order to the Contractor if the above guidelines are not being followed. The Contractor shall not resume his operations until the Contract Administrator is satisfied the Contractor is following the appropriate procedures. The Contractor shall have no claim for extra time or costs due to the stop work order for not following these safety guidelines.
- E11.8 The Contractor's attention is drawn to the Province of Manitoba Workplace Safety and Health Act (the "Act"), and the Regulations and Guidelines thereunder pertaining to confined entry work, and in particular the requirements for conducting hazard/risk assessments and providing personal protective equipment (PPE).
- E11.9 Provide supplied air breathing apparatus conforming to the requirements of the Act, Regulation and Guidelines for the use of the Contract Administrator where confined entry is required to allow for inspection of the Work.

E12. DEMOLITION AND REMOVALS

- E12.1 Description
- E12.1.1 This Specification shall cover all operations related to the demolition and removal of portions of the existing culvert crossing.
- E12.1.2 The Work to be done by the Contractor under this Specification shall include the furnishings of all superintendence, overhead, labour, materials, equipment, tools, supplies, and all things necessary for and incidental to the satisfactory performance and completion of all work as hereinafter specified.
- E12.2 Scope of Work
- E12.2.1 The Work under this Specification shall involve the following:
- (a) De-energizing and removal of electrical conduit as shown on the Drawings;
 - (b) Removal of existing components of the existing culvert as shown on the Drawings;

- (c) All material from the demolished structure shall be removed from Site by the Contractor in accordance with the Contractor's Environmental Protection Plan; and,
- (d) Excavation or any other works beyond the limits shown on the Drawings to facilitate the removals and demolition of the existing structure.

E12.3 Materials

E12.3.1 General

- (a) The Contractor shall be responsible for design and construction works related to the demolition and removal of the existing culvert and is subject to the approval of the Contract Administrator.

E12.4 Submittals

- E12.4.1 The Contractor shall prepare a demolition and removals plan. The plan shall include the design and drawings, Sealed by an Engineer Registered in the Province of Manitoba, the sequence and methods to be used to demolish and remove the existing structure. The demolition plan shall be in strict accordance with the Regulatory Approvals and D13 Environmental Protection Plan.
- E12.4.2 The demolition and removals plan shall indicate the sequence, machinery, methods and proposed access to accomplish the demolition of the existing culvert.
- E12.4.3 The demolition plan shall be submitted a minimum of 7 days prior to the commencement of the demolition.

E12.5 Measurement and Payment

- E12.5.1 Demolition and removal will not be measured and will be paid for at the Contract Lump Sum Price for "Demolition and Removals", which price shall be payment in full for performing all operations herein described and all other items incidental to the Work included in this Specification and accepted by the Contract Administrator.

E13. SUPPLY AND INSTALL PRECAST CONCRETE CULVERT

E13.1 Description

- (a) This specification shall cover the supply and installation of the concrete culvert by means of open-cut methods; and,
- (b) The Work to be done by the Contractor under this Specification shall include the furnishing of all superintendence, overhead, labour, materials, equipment, tools, supplies, and all things necessary for and incidental to the satisfactory performance and completion of all works as hereinafter specified.

E13.2 Materials

E13.2.1 General

- (a) All materials supplied under this Specification shall be of a type approved by the Contract Administrator, and shall be subject to inspection and testing by the Contract Administrator; and,
- (b) The Contractor shall be responsible for the safe removal and disposal of any debris and for the supply, safe storage and handling of all Materials as set forth in the Specification. All Materials shall be handled in a careful and workmanlike manner, to the satisfaction of the Contract Administrator.

E13.2.2 Concrete Culvert

- (a) Concrete culvert shall be 2740 mm ID reinforced concrete straight wall pipe conforming to CW 2130, CAN/CSA A257.2 and ASTM C76, Class III;
- (b) Bevelled end sections shall be fabricated as shown on the Drawings;

- (c) Concrete pipe gaskets, flexible rubber to be in accordance with ASTM C443 and shall be supplied with the necessary lubricant; and,
- (d) At least five (5) days prior to commencement of construction, the Contractor shall submit to the Contract Administrator for review shop drawings showing the culvert segments and associated materials.

E13.2.3 Bedding and Backfill

- (a) Bedding shall conform to CW 2030 "Sand";
- (b) Initial backfill shall conform to CW 2030 Type 2 backfill;
- (c) Suitable site material and imported material shall conform to CW 3170; and,
- (d) Clay plug material shall be suitable site material or imported fill material in accordance with CW 3170 "clay fill material" and shall be approved by the Contract Administrator prior to placement.

E13.2.4 Incidental Materials

- (a) All incidental and miscellaneous materials required for undertaking the works of this Specification shall be as approved by the Contract Administrator.

E13.2.5 Material Storage and Care

- (a) The culvert sections and associated materials shall be stored above ground on platforms, skids or other supports. They shall be kept free from dirt and other foreign matter, and shall be protected, as far as practical, and to prevent injury from deflection.

E13.3 Construction Methods

E13.3.1 Scope of Work

- (a) The scope of Work shall include the following items, as indicated on the Drawings and as specified herein:
 - (i) Supply of Culvert – Including the supply of the culvert sections, attachments, and all other related materials;
 - (ii) Installation of Culvert – Including supply and construction of any required temporary shafts and hoardings, installation of the new culvert sections, and other related works;
 - (iii) Placement of bedding and initial backfill as per CW 2030 and the Drawings; and,
 - (iv) Bank and Bed Works – Including tree removal, excavating, backfilling, grading, supplying and installing geotextile fabric and riprap, restoration, and all other related works.

E13.3.2 Scheduling and Methods

- (a) At least two (2) days prior to the commencement of any scheduled Work on the Site, the Contractor shall submit to the Contract Administrator for review and approval a proposed schedule, including methods and sequence of operations.

E13.3.3 Utility Locates and Protection

- (a) The Contractor shall obtain clearances from utilities in accordance with CW 1120.

E13.3.4 Culvert Installation

- (a) The culvert shall be installed in accordance with CW 2030, CW 2130, and as specified herein. The culvert may be installed by open cut.
- (b) For installation by open cut:
 - (i) Place and compact foundation material where required, and bedding material in bottom of trench or excavation in accordance with CW 2030, to grade and elevation shown on the Drawings. Level across full width of trench or excavation and leave ready for pipe installation;

- (ii) Place pipe on compacted bedding as shown on the Drawings ensuring uniform support under bell and pipe body throughout its full length. Lay pipe with bell upgrade. Install pipe to the line and grade shown on the Drawings. Pipe joint deflections to be within the manufacturer's recommendations;
- (iii) Work and compact bedding material under sides of pipe to provide proper haunching;
- (iv) Place and compact Type 2 initial backfill in accordance with CW 2030 and as shown on the Drawings;
- (v) Place and compact suitable site material and imported material for the remainder of the trench or excavation in accordance with CW 3170 and as shown on the drawings; and,
- (vi) Place and compact clay plug material in accordance with CW 3170 and as shown on the drawings.

E13.4 Quality Control

E13.4.1 Inspection

- (a) All workmanship and all materials furnished and supplied under this specification are subject to close and systematic inspection and testing by the Contract Administrator including all operations from the selection and production of materials through to final acceptance of the specified Work. The Contractor shall be wholly responsible for the control of all operations incidental thereto notwithstanding any inspection or acceptance that may have been previously given. The Contract Administrator reserves the right to reject any materials or Works which are not in accordance with the requirements of this Specification.

E13.4.2 Access

- (a) The Contractor shall allow the Contract Administrator free access to all parts of the Work at all times. The Contractor shall supply samples to the Contract Administrator or his inspector for testing purposes as required. There will be no charge to the city for samples taken.

E13.5 Measurement and Payment

- E13.5.1 Supply and installation of precast concrete culvert will not be measured and will be paid for at the Contract Lump Sum Price for "Supply and Installation of Precast Concrete Culvert", which price shall be payment in full for performing all operations herein described and all other items incidental to the Work included in this Specification and accepted by the Contract Administrator, with exception to the supply and placement of the clay plug, suitable site, and imported material.
- E13.5.2 Supply and installation of the bedding and initial backfill, material shall be considered incidental to the work and no separate measurement or payment will be made.
- E13.5.3 Supply and installation of the suitable site material and imported material shall be paid for in accordance with CW 3170.
- E13.5.4 Supply and installation of clay plug material shall be paid as fill material in accordance with CW 3170.

E14. EROSION CONTROL BLANKET (ECB)

E14.1 Description

- E14.1.1 This Specification covers the supply, installation, and maintenance of erosion control blanket to be installed around the perimeter of the stone rip rap as shown on the drawing and as directed by the Contract Administrator.

E14.2 Materials and Equipment

- E14.2.1 Erosion Control Blanket (ECB)

- (a) Erosion Control Blanket shall be a machine-produced mat of 70% agricultural straw and 30% coconut blanket with a functional longevity of up to 24 months. Suitable products include SC 150 Extended Term manufactured by North American Green, or approved equivalent;
- (b) The blanket shall be of consistent thickness with the straw and coconut evenly distributed over the entire area of the mat. The blanket shall be covered on the top side with heavyweight photodegradable polypropylene netting having ultraviolet additives to delay breakdown and a maximum 159 mm x 159 mm mesh and on the bottom side with a lightweight photodegradable polypropylene netting with a maximum 127 mm x 127 mm mesh. The blanket shall be sewn together on 381 mm centres (maximum) with degradable thread; and,
- (c) ECB shall have the following properties:
 - (i) Matrix 70% Straw Fibre (0.19 kg/m²) and 30% Coconut Fibre (0.08 kg/ m²);
 - (ii) Netting top side heavyweight photodegradable with UV additives (1.47 kg/100 m²);
 - (iii) Bottom side lightweight photodegradable minimum netting weight (0.73 kg/100 m²); and,
 - (iv) Degradable thread.

E14.3 Submittals

- E14.3.1 The Contractor shall submit all manufacturers' product specifications and recommended installation methods for the proposed erosion control blankets and associated materials to the Contract Administrator a minimum of fourteen (14) days before construction.

E14.4 Construction Methods

- E14.4.1 The Contractor shall supply all ECB materials required and store them on-site. The installation and maintenance of all ECM will be as directed by the Contract Administrator.
- E14.4.2 Actual alignment and location of the ECB may be adjusted in the field by the Contract Administrator.
- E14.4.3 Erosion Control Blanket – Drainage Channel Installation
 - (a) Excavation a trench 150 mm deep by 150 mm wide along the perimeter of the grouted stone rip rap. Place the ECB such that 300 mm of the blanket overlaps the grouted stone rip rap. Anchor blanket with 200 mm long staples in the trench a maximum of 300 mm apart. Backfill trench with soil and compact. Apply seed according to CW 3520 to compacted soil and fold remaining portion of the blanket over seeded soil and secure with 200 mm long staples a maximum of 300 mm apart. Securely fasten blanket against soil surface with 200 mm long staples with a minimum of 4 staples per square metre; and,
 - (b) Transverse joints and end seams in the ECB shall have a minimum overlap of 150 mm and secured with 200 mm staples a maximum of 300 mm apart.

E14.5 Maintenance

- E14.5.1 The areas covered with ECB shall be regularly inspected especially after severe rainfall or storm events, to check for blanket separation or breakage.
- E14.5.2 Any damaged or poorly performing areas as the result of storm events shall be replaced/repared immediately. Re-grading of the slope by hand methods may be required in the event of rill or gully erosion.
- E14.5.3 Should the Contract Administrator determine that the Contractor has not maintained the erosion control blankets properly or has damaged the blankets from construction activities resulting in sediment releases beyond the Work area; the Contractor shall retrieve all sediment that has left the construction area, to the fullest extent possible, at his own cost. As a minimum, the Contractor shall remove all deltas and sediment deposited in drainage ways and re-grade and/or reseed the areas where sediment removal results in exposed

soil. The removal and restoration shall take place within five (5) working days of discovery unless precluded by legal, regulatory, or physical access restraints. If precluded, removal and restoration must take place within five (5) working days of obtaining access. The Contractor is responsible for contacting all local, regional, provincial, and federal authorities before working in surface waters and for obtaining applicable permits. The Contractor's restoration Work to restore property outside of the designated Work area shall be at his own cost.

E14.6 Measurement and Payment

E14.6.1 Supplying and placing Erosion Control Blanket will be measured on a square metre basis. The area to be measured shall be the total number of square metres of Erosion Control Blanket supplied and placed in accordance with this Specification, acceptable to the Contract Administrator, as computed from the Drawing dimensions. This item of Work will be paid for at the Contract Unit Price per square metre for "Supply and Install Erosion Control Blanket" performed in accordance with this Specification and accepted by the Contract Administrator.

E15. INSTALLATION OF STRAW WATTLES

E15.1 Description

E15.1.1 Straw wattles are required to be installed as erosion control measures to mitigate any deleterious materials from entering the existing Land Drainage System.

E15.2 Materials

E15.2.1 The straw wattles shall be Stenlog or other biodegradable straw wattles.

E15.3 Construction Methods

E15.3.1 Install 300 mm Stenlog or other straw wattle sediment control material in accordance with the manufacturer's specifications around all riprap areas related to drainage inlets and outlets, and catch basins within seeded areas.

E15.3.2 Install straw wattles so that no gaps exist between the soil and the bottom of the wattle, and the ends of adjacent wattles are overlapped 150 mm minimum to prevent water and sediment passing. Achieve a tight seal between the wattle segments.

E15.3.3 Dogleg terminal ends of straw wattle up the slope to prevent channelling of sedimentation.

E15.3.4 Use 300 mm wooden stakes to fasten straw wattle to the soil. Place stakes on each side of the straw wattle, lying across the natural fibre twine, spaced 1200 mm on centre. Leave 30 to 50 mm of wood stake exposed above the wattle.

E15.3.5 Avoid damage to wattles. Damaged areas of wattles should be cut and tied off, then treated as terminal ends.

E15.3.6 At the direction of the Contract Administrator, the straw wattles shall be removed after seeding has established and before the end of the warranty period.

E15.4 Measurement and Payment

E15.4.1 Supplying and placing straw wattles will be measured on a per unit basis and the number to be paid for will be the total number of straw wattles supplied and placed in accordance with this Specification, acceptable to the Contract Administrator. This item of Work will be paid for at the Contract Unit Price per straw wattle for "Supply and Placement of Straw Wattles", performed in accordance with this Specification and accepted by the Contract Administrator.

E16. WATERWAYS PROTECTION

E16.1 Description

E16.1.1 All work adjacent to or crossing waterways including creeks and ditches draining in waterways is regulated by the Federal Department of Fisheries and Oceans (DFO).

E16.1.2 Complete works in accordance with DFO guidelines/regulations.

E16.2 Products

E16.2.1 Silt Fencing

- (a) Silt fencing to be woven polypropylene synthetic fibre fabric with UV stabilizers and reinforcing mesh as per Armtec Heavy Duty or approved equal, in accordance with B6;
- (b) The fabric shall be inert to commonly encountered soil chemicals, hydrocarbons, mildew, and bacteria; and,
- (c) Wood posts shall be minimum 50 mm x 50 mm (2" x 2") by 1.5 m in length.

E16.3 Construction Methods

E16.3.1 General

- (a) Complete erosion control works to be in accordance with current DFO and Manitoba Environment guidelines; and,
- (b) The following mitigation measures must be adhered to protect fish habitat:
 - (i) No in-channel construction activity shall be permitted during the time period of April 1 through June 15, as per the following Department of Fisheries and Oceans Operational Statement:
 - ◆ Timing Windows
 - (ii) Use sediment and erosion control measures to prevent soil laden run off and silt from affecting downstream areas of the watercourse. Halt construction during periods of heavy rain or run off.
 - (iii) Monitor the Work Site to evaluate the effectiveness of erosion control measures and the physical stability of the creek bed and banks. Any problems are to be rectified immediately.
 - (iv) Conduct the cleaning, fuelling, and servicing of equipment a minimum of 100m from any watercourse. Equipment operating near any watercourse should be free of external grease, oil, mud, or fluid leaks.
 - (v) Take necessary precautions to ensure deleterious substances, including silt, does not enter any watercourse. The deposit of deleterious substances into water frequented by fish is prohibited under the Fisheries Act.
 - (vi) Remove excess material from the excavation and place where it will not erode into any watercourse. Dispose all spoil materials above the high water mark and located such that they do not re-enter any watercourses.

E16.3.2 Silt Fence Installation

- (a) Install silt fences as per manufacturer's recommendations;
- (b) Excavate trench to place bottom of fabric a minimum of 150 mm below existing grade and backfill with compacted soil to prevent sediment flow underneath the silt fence;
- (c) Install all supporting posts on the down slope side of the fencing. Post to extend a minimum of 0.75m below ground or until fabric reach bottom of trench; and,
- (d) Maintain silt fences throughout construction and until placement of erosion control blanket. Complete reseeding of embankment as soon as weather conditions permit upon completion of construction.

E16.4 Measurement and Payment

E16.4.1 Silt fencing will be measured in lineal metres. The length to be paid for shall be the total number of metres of silt fence installed in accordance with this Specification as computed

from measurements verified by the Contract Administrator. Payment shall be at the Contract Unit Price for "Supply and Placement of Silt Fence".

E17. SUPPLY AND INSTALLATION OF ELECTRICAL CONDUIT

E17.1 Description

E17.1.1 This Specification shall cover all operations relating to the supply, fabrication, and installation of the electrical conduits for the lighting system shown on the Drawings and as specified herein.

E17.1.2 Scope of Work

- (a) Obtain all necessary permits for the work;
- (b) Remove, replace and relocate conduit and services for the park lighting;
- (c) Protect existing light pole and base from damage;
- (d) Connect new cable to existing power cabling for continuation of circuit;
- (e) Connect light wiring within light pole, to City of Winnipeg Light Construction Standards and Division 26 Electrical Requirements; and,
- (f) Place new conduit and cabling in trench as per the drawings.

E17.1.3 The Work to be done by the Contractor under this Specification shall include the furnishing of all superintendence, overhead, labour, materials, equipment, tools, supplies, and all other things necessary for and incidental to the satisfactory performance and completion of all Work hereinafter specified.

E17.2 General

E17.2.1 Refer to Division 26 Electrical Requirements for materials and construction methods.

E17.3 Measurement and Payment

E17.3.1 Supply and installation of electrical conduit will not be measured and will be paid for at the Contract Lump Sum Price for "Supply and Installation of Electrical Conduit", which price shall be payment in full for supplying all materials and for performing all operations herein described, Division 26 Electrical Requirements, and all other items incidental to the Work included in this Specification and accepted by the Contract Administrator.

E17.3.2 Applicable MRST/PST taxes pertaining to the Supply and Installation of Electrical Conduit will not be measured and will be paid for at the Contract Lump Sum Price for "Applicable MRST/PST for Item No. 18".

E18. SITE CLEAN UP

E18.1 The Contractor shall upon the completion of Work each day, load and dispose of all excess asphalt cuttings, spoiled concrete, reinforcing steel, granular and other material associated with the Works from the Work Site. The Contractor shall secure or remove all of his machinery and equipment at the end of each day from the immediate work site. The Contractor will not be permitted to store machinery, equipment, or materials on public roads overnight. Any costs in connection with the above mentioned Works are incidental.

E18.2 Unless otherwise specified the Contractor shall restore all areas which have been disturbed by his operations to as good as or better than original condition including removal of all construction debris, repair all vegetation, sod, concrete pavement, concrete curbs, concrete sidewalk and asphalt paving to remain etc. to the satisfaction of the Contract Administrator. Any costs incurred in connection with the above mentioned Work are incidental to unit prices bid under this contract.

E18.3 Total Performance of the Work shall not be attained until the Contractor has cleaned up the Site and has removed all tools, equipment, waste, debris and surplus foundation earth to the

satisfaction of the Contract Administrator. Unless otherwise specified, the Contractor shall restore all areas of the Site beyond the established limit of Work, which have been disturbed by the Contractor's operations to as good as or better than the original condition to the satisfaction of the Contract Administrator. The Contractor shall pay all costs associated with this Work.

- E18.4 Sod and Topsoil (repair to damaged areas). The Contractor shall install mineral sod and a minimum 75mm compacted thickness of topsoil, as required, and in accordance with CW 3510 and CW 3540.