



THE CITY OF WINNIPEG

BID OPPORTUNITY

BID OPPORTUNITY NO. 270-2014

2014 WATERMAIN RENEWALS CONTRACT 2

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Appendix A Reference Drawing - SK-1 – Watt Street Traffic Management

PART B - BIDDING PROCEDURES

B1. CONTRACT TITLE

B1.1 2014 WATERMAIN RENEWALS CONTRACT 2

B2. SUBMISSION DEADLINE

B2.1 The Submission Deadline is 12:00 noon Winnipeg time, April 10, 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;
 - (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 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;
 - (d) if the Bidder is carrying on business under a name other than his/her own, the business name and the name of every partner or corporation who is the owner of such business name shall be inserted.
- B9.2.1 If a Bid is submitted jointly by two or more persons, each and all such persons shall identify themselves in accordance with B9.2.
- B9.3 In Paragraph 3 of Form A: Bid, the Bidder shall identify a contact person who is authorized to represent the Bidder for purposes of the Bid.
- B9.4 Paragraph 12 of Form A: Bid shall be signed in accordance with the following requirements:
- (a) if the Bidder is a sole proprietor carrying on business in his/her own name, it shall be signed by the Bidder;
 - (b) if the Bidder is a partnership, it shall be signed by the partner or partners who have authority to sign for the partnership;
 - (c) if the Bidder is a corporation, it shall be signed by its duly authorized officer or officers and the corporate seal, if the corporation has one, should be affixed;
 - (d) if the Bidder is carrying on business under a name other than his/her own, it shall be signed by the registered owner of the business name, or by the registered owner's authorized officials if the owner is a partnership or a corporation.
- B9.4.1 The name and official capacity of all individuals signing Form A: Bid should be printed below such signatures.
- B9.5 If a Bid is submitted jointly by two or more persons, the word "Bidder" shall mean each and all such persons, and the undertakings, covenants and obligations of such joint Bidders in the Bid and the Contract, when awarded, shall be both joint and several.

B10. PRICES

- B10.1 The Bidder shall state a price in Canadian funds for each item of the Work identified on Form B: Prices.
- B10.2 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; and
- (b) be fully capable of performing the Work required to be in strict accordance with the terms and provisions of the Contract; and
- (c) have a written workplace safety and health program if required pursuant to The Workplace Safety and Health Act (Manitoba);
- (d) upon request of the Contract Administrator, obtain Security Clearances in accordance with PART F - ;

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;
 - (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 the renewal of various watermains in the City of Winnipeg.

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

- (a) Installation of approximately 1700 metres of 150 to 300 mm diameter PVC watermain pipe by trenchless methods;
- (b) Abandonment or removal of existing watermains, hydrants, and valves;
- (c) Installation of valves and hydrants;
- (d) Reconnection or renewal of water service connections;
- (e) Relocation or replacement of existing catch basins;
- (f) Restoration of pavement and boulevard areas.

D3. CONTRACT ADMINISTRATOR

D3.1 The Contract Administrator is AECOM Canada Ltd., represented by:
Greg Karman, C.E.T.
Project Manager

Telephone No. 204 477-5381
Facsimile No. 204 284-2040

D3.2 At the pre-construction meeting, Mr. Karman 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/matmgt/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.
- (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. SUBCONTRACTOR LIST

D12.1 The Contractor shall provide the Contract Administrator with a complete list of the Subcontractors whom the Contractor proposes to engage (Form J: Subcontractor List) at least two (2) Business Days prior to the commencement of any Work on the Site but in no event later than the date specified in the General Conditions for the return of the executed Contract.

D13. DETAILED WORK SCHEDULE

D13.1 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 C:4.1 for the return of the executed Contract.

D13.2 The detailed work schedule shall consist of the following:

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

D13.3 Further to D13.2, the schedule shall clearly identify the start and completion dates of all of the following activities/tasks making up the Work as well as showing those activities/tasks on the critical path. For each block of watermain renewals, include:

- (a) Installation of temporary services;
- (b) Testing of temporary services;
- (c) Construction of watermain renewals;
- (d) Pressure Testing and Disinfections;
- (e) Final tie-ins;
- (f) Pavement restorations;
- (g) Boulevard restorations.

D13.4 Further to D13.3, the initial schedule submitted may include the detailed tasks for the initial street or streets that the Contractor intends to commence on, and general detail of the schedule of the remaining streets. At least 5 working days prior to commencing a new street, the Contractor shall submit a detailed schedule including all tasks identified in D13.3 for the upcoming street.

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 Subcontractor list specified in D12.
- (vii) the detailed work schedule 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 commence the Work on the Site within seven (7) Working Days of receipt of the letter of intent.

D14.4 The City intends to award this Contract by May 9, 2014.

D14.4.1 If the actual date of award is later than the intended date, the dates specified for Critical Stages will be adjusted by the difference between the aforementioned intended and actual dates.

D15. SEQUENCE OF WORK

D15.1 Further to C6.1, the sequence of work shall comply with the following:

D15.1.1 Watermain construction on Woodvale Street shall not commence before June 9, 2014.

D15.1.2 Watermain construction on Watt Street shall not commence before June 30, 2014.

D16. CRITICAL STAGES

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

- (a) Construction of the Work on Harbison Avenue must be complete, including testing by July 11, 2014 to allow for Public Works street renewal to follow.
- (b) Construction of the Work on Woodvale Street must be complete, including testing and restoration by July 11, 2014 to allow for Public Works street renewal to follow.
- (c) Construction of the Work on Watt Street must be complete, including testing and restoration by August 29, 2014.

D17. SUBSTANTIAL PERFORMANCE

D17.1 The Contractor shall achieve Substantial Performance within sixty-five (65) consecutive Working Days of the commencement of the Work as specified in D14.

D17.2 When the Contractor considers the Work to be substantially performed, the Contractor shall arrange, attend and assist in the inspection of the Work with the Contract Administrator for purposes of verifying Substantial Performance. Any defects or deficiencies in the Work noted during that inspection shall be remedied by the Contractor at the earliest possible instance and the Contract Administrator notified so that the Work can be reinspected.

D17.3 The date on which the Work has been certified by the Contract Administrator as being substantially performed to the requirements of the Contract through the issue of a certificate of Substantial Performance is the date on which Substantial Performance has been achieved.

D18. TOTAL PERFORMANCE

D18.1 The Contractor shall achieve Total Performance within seventy-five (75) consecutive Working Days of the commencement of the Work as specified in D14.

D18.2 When the Contractor or the Contract Administrator considers the Work to be totally performed, the Contractor shall arrange, attend and assist in the inspection of the Work with the Contract Administrator for purposes of verifying Total Performance. Any defects or deficiencies in the Work noted during that inspection shall be remedied by the Contractor at the earliest possible instance and the Contract Administrator notified so that the Work can be reinspected.

D18.3 The date on which the Work has been certified by the Contract Administrator as being totally performed to the requirements of the Contract through the issue of a certificate of Total Performance is the date on which Total Performance has been achieved.

D19. LIQUIDATED DAMAGES

- D19.1 If the Contractor fails to achieve any Critical Stage in accordance with the Contract by the dates stated in D16.1, the Contractor shall pay the City one thousand dollars (\$1,000) per Working Day for each and every Working Day following the dates fixed for Critical Stages during which such failure continues.
- D19.2 If the Contractor fails to achieve Substantial Performance in accordance with the Contract by the day fixed herein for Substantial Performance, the Contractor shall pay the City one thousand two hundred and fifty dollars (\$1,250) per Working Day for each and every Working Day following the day fixed herein for Substantial Performance during which such failure continues.
- D19.3 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 seven hundred and fifty dollars (\$750) per Working Day for each and every Working Day following the day fixed herein for Total Performance during which such failure continues.
- D19.4 The amount specified for liquidated damages in D19.1, D19.2 and D19.3 is based on a genuine pre-estimate of the City's losses in the event that the Contractor does not achieve Critical Stages, Substantial Performance, and Total Performance by the days fixed herein for same.
- D19.5 The City may reduce any payment to the Contractor by the amount of any liquidated damages assessed.

D20. SCHEDULED MAINTENANCE

- D20.1 The Contractor shall perform the following scheduled maintenance in the manner and within the time periods required by the Specifications:
- (a) Landscaping Maintenance as specified in CW 3510.
- D20.2 Determination of Substantial Performance and Total Performance shall be exclusive of scheduled maintenance identified herein. All scheduled maintenance shall be completed prior to the expiration of the warranty period. Where the scheduled maintenance cannot be completed during the warranty period, the warranty period shall be extended for such period of time as it takes the Contractor to complete the scheduled maintenance.

CONTROL OF WORK

D21. JOB MEETINGS

- D21.1 Regular weekly job meetings will be held at the Site. These meetings shall be attended by a minimum of one representative of the Contract Administrator, one representative of the City and one representative of the Contractor. Each representative shall be a responsible person capable of expressing the position of the Contract Administrator, the City and the Contractor respectively on any matter discussed at the meeting including the Work schedule and the need to make any revisions to the Work schedule. The progress of the Work will be reviewed at each of these meetings.
- D21.2 The Contract Administrator reserves the right to cancel any job meeting or call additional job meetings whenever he/she deems it necessary.

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

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

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

D23.1 Further to 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.

D24. WORK PRACTICES ON ASBESTOS-CEMENT PIPE

D24.1 Further to C.6.26(d), the Contractor's attention is directed to the possible health dangers associated with working with asbestos cement pipe and all work associated with the existing asbestos cement (AC) watermains shall conform to the following publications:

D24.1.1 "Work Practices for Asbestos-Cement Pipe", AWWA No. M16, published by the American Water Works Association.

D24.1.2 "Recommended Work Practices for AC Pipe", 1977, published by the AC Pipe producers Association.

D24.2 The Contractor shall state in the "job specific safe work plan" the proposed procedure for working on AC pipe. The Contractor shall also provide proof of asbestos handling training or certification.

D25. WORK BY OTHERS

D25.1 Work on or near the site will include but not necessarily be limited to:

(a) City of Public Works Department: Harbison Avenue Pavement Reconstruction.

(b) City of Public Works Department: Woodvale Street Pavement Rehabilitation.

D26. TRAFFIC MANAGEMENT

D26.1 Traffic control shall be carried out in accordance with clause 3.7 of CW 1130.

D26.2 Further to D26.1, should the Public Works Department require that Work on Regional Streets be carried out at night, on Sundays, on Public Holidays, or that work be restricted or suspended during peak traffic hours, the Contractor shall comply without additional compensation being considered to meet that requirements.

D26.3 Regional Streets on this project are:

(a) Watt Street

(b) Levis Street

D26.4 Further to D26.1 and D26.2 on Regional Streets construction activities shall be restricted as follows:

(a) Watt Street

(i) Maintain one northbound and one southbound lane at all times.

(ii) Maintain access to all back lanes at all times.

(iii) Maintain access to all side streets on the east side of Watt Street at all times.

(iv) Maintain access to all establishments at all times.

(v) Cross street traffic will be restricted to right-in/right-out only at the flowing intersections: Larsen Avenue, Harbison Avenue W., Martin Avenue W., and Union Avenue W.

(vi) Left turns from Watt Street will be banned at the following cross streets: Larsen Avenue, Harbison Avenue W., Martin Avenue W., and Union Avenue W.

(vii) Left turns southbound on Watt Street will also be banned at Chalmers Street.

- (viii) Right turns from west bound Chalmers Street onto Watt Street will be banned during construction in the right turn cut-off. The Contractor shall schedule construction to minimize the duration of the closure of the right turn cut-off.
- (ix) Refer to Appendix A: Watt Street Traffic Management drawing SK-1.

D26.5 The Contractor shall schedule construction activities to meet the following:

- (a) On the following streets at least one lane for local access traffic shall be maintained along this street during construction, with the street signed "Road Closed – Local traffic Only"
 - (i) Harbison Avenue West
 - (ii) Newark Road
 - (iii) Elm Park Road
 - (iv) Ottawa Avenue
 - (v) Briar Del Place
 - (vi) Corton Place
- (b) Maintain one lane through traffic at all times on the following streets:
 - (i) Woodvale Street
 - (ii) Roch Street
 - (iii) Riel Avenue
- (c) Maintain one lane of traffic each way on Cottonwood Road.

D26.6 Maintain access to private approaches at all times.

D26.7 Further to Section 3.6 of CW 1130 of the General Requirements, the Contractor shall maintain safe pedestrian crossing at intersections at all times.

- (a) Except as noted below, if possible, only one pedestrian crossing at an intersection is to be blocked by construction at any one time. If more than one pedestrian crossing is blocked by construction at an intersection at the same time, the Contractor shall provide flag persons to safely escort pedestrians across the intersection.
- (b) The Contractor shall leave pedestrian crossing locations safe and free of equipment that may hamper pedestrians when no construction activities are being performed at a particular crossing location.
- (c) The Contractor shall not park company or private vehicles inside the barricaded work zone in a manner that will block sightlines for vehicles and pedestrians approaching and crossing intersections.

MEASUREMENT AND PAYMENT

D27. PAYMENT

D27.1 Further to C12, the City may at its option pay the Contractor by direct deposit to the Contractor's banking institution.

D28. WATER USED ON CITY OF WINNIPEG CONSTRUCTION PROJECTS

D28.1 Further to Section 3.7 of CW 1120, charges incurred for the permit and water meters shall be paid for by the Contractor when taken out. The Contractor shall forward the invoice to the Contract Administrator for reimbursement. The billing for water usage sent to the Contractor shall be forwarded to the Contract Administrator for payment processing. The Bid Opportunity number shall be noted on each permit.

WARRANTY

D29. WARRANTY

D29.1 Warranty is as stated in C13.

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. 270-2014

2014 WATERMAIN RENEWALS CONTRACT 2

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. 270-2014
2014 WATERMAIN RENEWALS CONTRACT 2

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>Appendix No.</u>	<u>Title</u>
A	Reference Drawing: SK-1 – Watt Street Traffic Management

<u>Drawing No.</u>	<u>Drawing Name/Title</u>
	Cover Sheet
D-13516	Index Page
D-13517	Elm Park Road - Edinburgh Street to 110m East of Edinburgh Street
D-13518	Elm Park Road - 110m East of Edinburgh Street to 196m East of Edinburgh Street
D-13519	Newark Road - Cottonwood Road to 90m North of Cottonwood Road
D-13520	Newark Road - 90m North of Cottonwood Road to Westmount Bay (North Leg)
D-13521	Watt Street - Chalmers Avenue to 40m North of Union Avenue West
D-13522	Watt Street - 40m North of Union Avenue West to Harbison Avenue West
D-13523	Harbison Avenue West - Watt Street to 115m East of Watt Street
D-13524	Harbison Avenue West - 115m East of Watt Street to 265m East of Watt Street
D-13525	Harbison Avenue West - 265m East of Watt Street to 396m East of Watt Street
D-13526	Ottawa Avenue - 150m East of Brazier Street to Roch Street
D-13527	Roch Street - Ottawa Avenue to Winterton Avenue
D-13528	Woodvale Street - Greene Avenue to Leighton Avenue
D-13529	Briar Del Place & Corton Place - Watermain Abandonment and Associated Works
D-13530	Riel Avenue - Hydrant Installation Between Darwin Street & Robertson Crescent

GENERAL REQUIREMENTS

E2. RESTORATIONS

- E2.1 Further to Section 3.3 of CW 1130 of the General Requirements, permanent surface restorations including all sodding and pavement works for each renewal shall be completed within ten (10) working days from the date that the renewal is completed.
- E2.2 Where excavations are to be restored with 24-hour early opening concrete, the Contractor shall make it his first priority to; backfill the excavation; pour the 24-hour concrete; where required, lay asphalt as soon as the 24-hour curing period is up and open the closed lane to traffic.

E3. PROVISIONAL ITEMS

- E3.1 The Provisional Items listed in the Schedule of Prices are a part of the Contract.

E3.2 The Contractor shall not perform Work included in the Provisional Items without prior authorization from the Contract Administrator. All Work included in the Provisional Items will be carried out within the construction areas shown on the Drawings.

E3.3 Notwithstanding C:7, the City reserves the right to diminish all or any portion of the items of Work listed in the Provisional Items and no claim shall be made for damages on grounds of loss of anticipated profit or for any other reason.

E4. PROTECTION OF EXISTING TREES

E4.1 The Contractor shall take the following precautionary steps to prevent damage from construction activities to existing boulevard trees within the limits of the construction area:

- (a) The Contractor shall not stockpile materials and soil or park vehicles and equipment on boulevards within 2 metres of trees.
- (b) Trees identified to be at risk by the Contract Administrator are to be strapped with 25 x 100 x 2400mm 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.
- (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.

E4.2 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.

E4.3 No separate measurement or payment will be made for the protection of trees.

E4.4 Except as required in clause E4.1(c) and E4.1(e), Elm trees shall not be pruned at any time between April 1 and July 31.

E5. MISCELLANEOUS CONCRETE SLAB RENEWALS – SIDEWALKS

E5.1 Construct miscellaneous concrete slab renewals in accordance with CW 3235. Miscellaneous concrete slab renewals for sidewalk shall be measured on an area basis and paid for at the Contract Unit Price per square metre for "Miscellaneous Concrete Slab Renewals – Sidewalk" in Form B of the Bid Submission.

E6. PARTIAL SLAB PATCHES

E6.1 Partial Slab Patches shall be constructed, measured and paid for as per CW 3230 except that no differentiation will be made for class of patch. Furthermore, no separate measurement or payment will be made for Drilled Dowels or Tie Bars, the cost for which shall be included in the prices bid for Partial Slab Patches.

E7. CONCRETE CURB RENEWALS

- E7.1 Construct concrete curb renewal in accordance with CW 3240. Concrete curb renewal shall be measured on a length basis and paid for at the Contract Unit Price per metre for "Concrete Curb Renewal" in Form B of the Bid Submission.

E8. EXPOSING EXISTING UTILITIES

- E8.1 Where indicated on the drawings or as directed by the Contract Administrator, expose existing utilities by vacuum excavation methods. Backfill test excavations to the same standard as specified for the watermain renewal. Where these test excavations occur within pavement limits, plate excavations to allow for reopening of lanes to traffic prior to completing permanent pavement restoration. No separate measurement or payment shall be made for test excavations, backfilling, or plating excavations prior to permanent restoration. Pavement restorations will be measured and paid for as specified in E5.

E9. TEMPORARY SURFACE RESTORATIONS

- E9.1 Further to clause 3.3 of CW 1130, where temporary surface restorations must be made to reopen lanes to traffic on Regional Streets, the Contractor shall temporarily restore surfaces as follows:
- (a) Backfill excavation with Class 1 Backfill extending to the underside of cold-mix asphalt as specified below.
 - (b) Cap excavations in pavement with a minimum 50 millimetre thick layer of cold-mix asphalt.
- E9.2 Contractor shall maintain temporarily restored surfaces until permanent restoration is complete.
- E9.3 Method of Measurement and Payment
- (a) Temporary surface restorations will be measured on an area basis and be paid for at the Contract Unit Price per square metre for "Temporary Surface Restorations", measured as specified herein, which price shall be payment in full for supplying all materials and performing all operations herein described and all other items incidental to the work included in this Specification.

E10. OIL AND GAS RESISTANT GASKETS

- E10.1 Further to CW 2110, where indicated on the construction drawings or as directed by the Contract Administrator, the Contractor shall install watermains with oil and gas resistant gaskets. Within the required limits, all pipe, valves, hydrant assemblies, fittings, couplings, and appurtenances shall be installed with oil and gas resistant gaskets.
- E10.2 Limits required for oil and gas resistant gaskets in areas not identified on the construction drawings will be based upon results of soils testing (refer to E11 Removal of Contaminated Soil).
- E10.3 Gaskets shall be oil and gas resistant Nitrile conforming to ASTM F477 and shall be supplied by the pipe manufacturer.
- E10.4 Watermains installed with oil and gas resistant gaskets will be measured on a lineal meter basis, and paid for as a surcharge to watermain renewals at the unit price bid for "Watermains Installed with Oil and Gas Resistant Gaskets - Surcharge". The price bid per lineal metre will be full compensation for all gaskets required for pipe, fittings, valves, pipe, valves, hydrant assemblies, fittings, couplings, and appurtenances. No separate measurement will be made for pipes of different diameter. **NOTE:** Payment will be as a surcharge in addition to the unit price bid for "Watermain Renewals" measured on a length basis.

E11. REMOVAL OF CONTAMINATED SOIL

E11.1 Description

- (a) Further to CW 1130 Clause 3.4, this specification outlines the requirements for the disposal of hydrocarbon contaminated soil.

E11.2 Construction Methods

- (a) Excavate test pits as directed by the Contract Administrator.
- (b) Excavate test pits in advance of construction to allow for sampling and determination of the level of contaminants. Test pits shall be excavated at planned shaft locations.
- (c) Soils requiring removal and disposal will be identified by the Contract Administrator.
- (d) Handle all contaminated soils in accordance with provincial regulations.
- (e) All hydrocarbon impacted soil removed as part of the construction works shall be transported directly to a Licensed Waste Disposal Grounds in accordance with provincial regulations.
- (f) Where Class 5 backfill is specified, backfill excavations with suitable excess trench material from other excavations on site. No additional compensation will be considered for management of backfill materials.

E11.3 Measurement and Payment

- (a) Disposal of hydrocarbon contaminated soil at a Licensed Waste Disposal Grounds in accordance with provincial regulations will be measured on a volume basis paid for at the Contract Unit Price per cubic metre for "Disposal of Hydrocarbon Contaminated Soil". The volume to be paid will be calculated from measurements of the trench taken by the Contract Administrator. The volume to be paid for will be the total number of cubic metres of hydrocarbon material excavated, and disposed of in accordance with this specification, accepted and measured by the Contract Administrator.
- (b) No measurement or payment shall be made for excavation of test pits.

E12. WATERMAIN RENEWAL ON HARBISON AVENUE WEST

E12.1 Permanent surface restoration (pavements, sidewalks, and topsoil and sodding) following the watermain renewal on Harbison Avenue West will be completed under separate contract. Excavations within driveways, sidewalks, and pavements shall be temporarily restored as follows:

- (a) Street Pavement and Driveways – Backfill in the top 300 mm of trench to be compacted 20mm down limestone.
- (b) Sidewalks – Backfill in the top 200 mm of trench to be compacted 20mm down limestone.

E12.2 The Contractor shall maintain temporary surface restorations until the paving contractor mobilizes to site.

E12.3 All disturbed boulevards shall be graded to 100 mm below finished grade.

E12.4 No measurement or payment shall be made for temporary surface restorations.

E12.5 No separate measurement or payment shall be made for saw cutting and removal of existing pavements and walks required to construct the watermain renewals.

E13. CONNECTION TO EXISTING WATER SERVICES

E13.1 This specification shall amend Clause 4.22 of CW 2110.

E13.2 Connection to existing lead water services will be measured and paid for in accordance with Clause 4.13 of CW 2110, "Connecting Existing Copper Water Services to New Watermain" for

each connection made, regardless of the material of the existing water service being connected to. Connecting to existing lead water services will not be included in the installation of a curb stop box.

E14. PRE-INSULATED WATERMAIN PIPING

E14.1 General

- (a) Further to CW 2110, where indicated on the drawings, the Contractor shall supply and install pre-insulated watermain piping.

E14.2 Materials

- (a) Pipe: use only watermain piping listed as Approved Products for Underground Use in the City of Winnipeg.
- (b) Thermal insulation: to be factory applied, rigid, closed cell polyurethane insulation to a thickness of 50 mm, Shaw Pipe Protection "Insul 8" systems of Urecon Ltd. "U.I.P." system meeting the following requirements:
 - (i) Core density, ASTM D-162235 48 kg/m³
 - (ii) Compressive strength, ASTM D1621 275 kPa
 - (iii) Thermal conductivity, ASTM C518 0.020 W/cm °C to 0.022 W/cm °C
 - (iv) Service temperature -45°C to 85°C
 - (v) Closed cell content, ASTM D2856 90% minimum
 - (vi) Water absorption, ASTM D2127 4.25% by volume
 - (vii) Dimensional stability, ASTM D2126, procedure B & E
- (c) Protective jacketing to be either of the following:
 - (i) A 1.14 mm thickness of continuously extruded high-density polyethylene over a rubber mastic under adhesive as manufactured by Shaw Pipe Protection, "Insul 8" system.
 - (ii) A 1.27 mm thickness in two (2) layers spirally wrapped high density polyethylene tape, hot applied, counter wound, overlapped 15% of tape width on each seam, Urecon Ltd. "U.I.P." system.
- (d) Heat shrink sleeves: adhesive coated cross-linked polyethylene sleeve to provide a moisture proof seal at joints in 150 mm widths.
- (e) Mastic: Flintguard No. 110-14 asphalt mastic vapour barrier.

E14.3 Construction Methods

E14.3.1 Preparation of Pipe and Insulation

- (a) Clean all surfaces adequately prior to applying adhesives, polyurethane, mastic, shrink sleeves or tape. Remove and replace any materials where proper bond is not attained.
- (b) Transport, store, and handle insulated components with care to prevent damage to insulation and/or protective jacket.
- (c) Repair damaged insulation with field applied urethane. Repair damaged protective jacket with heat shrink sleeves or heat shrink tape.
- (d) Do jointing as required. Cut back insulation on pipe to provide snug fit.
- (e) Coat all exposed surfaces of pipe insulation with mastic.

E14.3.2 Installation

- (a) Install pre-insulated watermain pipe by trenchless methods as specified in CW 2110 Clause 3.4.
- (b) After making pipe joint, install heat shrink sleeve across joint.

- (c) Where spiral wound protective jacketing is used, install piping in cored hole in the direction of winding.
- (d) Ensure insulation and protective jacket is not damaged during installation in a cored hole.

E14.4 Measurement and Payment

- (a) Pre-insulated watermain will be measured on a length basis for each size, method of installation and type of backfill, and paid for at the Contract Unit Price for "Pre-Insulated Watermain". Length to be paid for will be the total number of linear metres supplied and installed in accordance with this specification, accepted and measured by the Contract Administrator.

E15. REGIONAL WATERMAIN INFRASTRUCTURE PROTECTION

E15.1 General

- (a) This specification covers additional construction procedures for work around Regional Watermain Infrastructure. The Regional Watermain Infrastructure that may be impacted by the Contractor's operations on this project include:
 - (i) 600 mm Chalmers-Nottingham Feedermain on Chalmers Street

E15.2 Submittals

- E15.2.1 Prior to commencement of work the Contractor shall submit for review the following data:
 - (a) A list of equipment intended to be used to carry out the work along with the following information:
 - (i) Equipment operating weight and dimensions including wheel or track base, track length or axle spacings, track widths or wheel configurations
 - (ii) Payload weights
 - (iii) Load distributions in the intended operating configuration

E15.3 Construction Methods

E15.3.1 Excavation Adjacent to Regional Watermain Infrastructure

- (a) Construction practices shall not subject Regional Watermain Infrastructure to asymmetrical loading at any time.
- (b) Construction practices or procedures at or near Regional Watermain Infrastructure shall not impart excessive vibration loads to the pipelines.
- (c) Only smooth edged excavation buckets, soft excavation or hand excavation shall be used for excavation adjacent to and over the pipelines.
- (d) Provide full face shoring for the duration of excavations adjacent to Regional Watermain Infrastructure to prevent settlement of the subgrade or loss of bedding below the pipelines.
- (e) Maintain a minimum 1.5 m clearance from the outside diameter of the regional watermain and the edge of excavations for watermain and water service installations.

E15.3.2 Exposing Regional Watermain Infrastructure

- (a) Expose Regional Watermain Infrastructure at crossings to confirm alignment and depth prior to watermain construction.
- (b) Use vacuum excavation or hand methods to expose piping.

E15.3.3 Watermain and Water Service Crossings

- (a) After confirmation of the elevation and location of the existing infrastructure the Contract Administrator will instruct the Contractor to install the watermain or water service renewals above or below the existing Regional Watermain Infrastructure. The following minimum vertical clearances must be achieved:

	Feeder mains	
	Above	Below
Watermain (150 mm or larger)	300 mm	1000 mm
Water Service (50 mm or smaller)	200 mm	300 mm

- (b) Under-crossings shall be constructed by trenchless methods. Pilot rod entry shall be from the shaft nearest the Regional Watermain Infrastructure.
- (c) Adjust the laying schedule of watermain pipes to maximize the distance from the centerline of the crossing infrastructure and new watermain pipe joints. Where possible, centre length of pipe on the crossing infrastructure and use full pipe lengths.
- (d) For over-crossings: maximize depth and provide rigid insulation as per SD-018 as directed by the Contract Administrator.

E15.3.4 Compaction and Backfill

- (a) Further to CW 2030, no vibratory compaction equipment will be permitted to be used within 1.5 m of the outside edge of Regional Watermain Infrastructure.
- (b) Hand tamp material adjacent to Regional Watermain Infrastructure.
- (c) Within 1.5 m of the outside edge of Regional Watermain Infrastructure backfill with Class 3 backfill modified as follows:
 - (i) Jet and flood Type 1 material in accordance with CW 2030 Clauses 3.9.1 through 3.9.5.
 - (ii) Tamping with backhoe mounted plate packers will not be permitted.
 - (iii) When initial settlement is complete and the surface is sufficiently dry, place additional backfill material and repeat the jetting and flooding procedure.

E15.4 Measurement and Payment

- (a) No measurement and payment will be made for exposing Regional Watermain Infrastructure at locations of under or over-crossings.

E16. BRIAR DEL PLACE AND CORTON PLACE WATERMAIN ABANDONMENT

E16.1 Scope of Work

E16.1.1 The intended work on Briar Del Place and Corton Place is the abandoning of the existing watermain that traverses an easement between the two cul-de-sacs. In conjunction with abandoning this main, new valves are required on Britannica Road and Sandrington Drive to provide proper isolation and the 38 millimetre waterline around the cul-de-sac must be fully looped back to the 150 millimetre watermain.

E16.2 Construction Methods

- E16.2.1 Construct the piping modifications and abandon the existing watermain in accordance with CW 2110.
- E16.2.2 Install new zinc anodes at the connection point to the existing 38 millimetre copper watermain.
- E16.2.3 Install new 38 millimetre copper water mains by trenchless methods, maintaining a minimum 2.5 metres cover.

E16.3 Measurement and Payment

- (a) Measurement and payment shall be as specified in CW 2110.

PART F - SECURITY CLEARANCE

F1. SECURITY CLEARANCE

- F1.1 Each individual proposed to perform the following portions of the Work:
- (a) any Work on private property;
 - (b) any Work within City facilities other than:
 - (i) an underground structure such as a manhole;
 - (ii) in areas and at times normally open to the public;
 - (c) communicating with residents and homeowners in person or by telephone;
- F1.1.1 Each Individual shall be required to obtain a Criminal Record Search Certificate from the police service having jurisdiction at his/her place of residence. Or
- (a) BackCheck, forms to be completed can be found on the website at: <http://www.backcheck.net/> ; or
 - (b) Commissionaires (Manitoba Division), forms to be completed can be found on the website at: <http://www.commissionaires.mb.ca/> .
- F1.2 Prior to the commencement of any Work specified in F1.1, and during the term of the Contract if additional or replacement individuals are proposed to perform Work, the Contractor shall supply the Contract Administrator with a Criminal Record Search Certificate obtained not earlier than one (1) year prior to the Submission Deadline, or a certified true copy thereof, for each individual proposed to perform such Work.
- F1.3 Any individual for whom a Criminal Record Search Certificate is not provided, or for whom a Criminal Record Search Certificate indicates any convictions or pending charges related to property offences or crimes against another person will not be permitted to perform any Work specified in F1.1.
- F1.4 Any Criminal Record Search Certificate obtained thereby will be deemed valid for the duration of the Contract subject to a repeated records search as hereinafter specified.
- F1.5 Notwithstanding the foregoing, at any time during the term of the Contract, the City may, at its sole discretion and acting reasonably, require an updated criminal records search. Any individual who fails to provide a satisfactory Criminal Record Search Certificate as a result of a repeated criminal records search will not be permitted to continue to perform any Work specified in F1.1.