



THE CITY OF WINNIPEG

BID OPPORTUNITY

BID OPPORTUNITY NO. 317-2011

2011 WATER SERVICE REPLACEMENT PROGRAM – CONTRACT 11

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Sketch showing Service Renewal near 600 mm St. Vital Feedermain

PART B - BIDDING PROCEDURES

B1. CONTRACT TITLE

B1.1 2011 WATER SERVICE REPLACEMENT PROGRAM – CONTRACT 11

B2. SUBMISSION DEADLINE

- B2.1 The Submission Deadline is 12:00 noon Winnipeg time, May 12, 2011.
- 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. ADDENDA

- B5.1 The Contract Administrator may, at any time prior to the Submission Deadline, issue addenda correcting errors, discrepancies or omissions in the Bid Opportunity, or clarifying the meaning or intent of any provision therein.
- B5.2 The Contract Administrator will issue each addendum at least two (2) Business Days prior to the Submission Deadline, or provide at least two (2) Business Days by extending the Submission Deadline.
- B5.2.1 Addenda will be available on the Bid Opportunities page at The City of Winnipeg, Corporate Finance, Materials Management Division website at <http://www.winnipeg.ca/matmgt/bidopp.asp>
- B5.2.2 The Bidder is responsible for ensuring that he 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.
- B5.3 The Bidder shall acknowledge receipt of each addendum in Paragraph 10 of Form A: Bid. Failure to acknowledge receipt of an addendum may render a Bid non-responsive.

B6. SUBSTITUTES

- B6.1 The Work is based on the Plant, Materials and methods specified in the Bid Opportunity.
- B6.2 Substitutions shall not be allowed unless application has been made to and prior approval has been granted by the Contract Administrator in writing.
- B6.3 Requests for approval of a substitute will not be considered unless received in writing by the Contract Administrator at least five (5) Business Days prior to the Submission Deadline.
- B6.4 The Bidder shall ensure that any and all requests for approval of a substitute:
- (a) provide sufficient information and details to enable the Contract Administrator to determine the acceptability of the Plant, Material or method as either an approved equal or alternative;
 - (b) identify any and all changes required in the applicable Work, and all changes to any other Work, which would become necessary to accommodate the substitute;
 - (c) identify any anticipated cost or time savings that may be associated with the substitute;
 - (d) certify that, in the case of a request for approval as an approved equal, the substitute will fully perform the functions called for by the general design, be of equal or superior substance to that specified, is suited to the same use and capable of performing the same function as that specified and can be incorporated into the Work, strictly in accordance with the proposed work schedule and the dates specified in the Supplemental Conditions for Substantial Performance and Total Performance;
 - (e) certify that, in the case of a request for approval as an approved alternative, the substitute will adequately perform the functions called for by the general design, be similar in substance to that specified, is suited to the same use and capable of performing the same function as that specified and can be incorporated into the Work, strictly in accordance with the proposed work schedule and the dates specified in the Supplemental Conditions for Substantial Performance and Total Performance.
- B6.5 The Contract Administrator, after assessing the request for approval of a substitute, may in his sole discretion grant approval for the use of a substitute as an “approved equal” or as an “approved alternative”, or may refuse to grant approval of the substitute.
- B6.6 The Contract Administrator will provide a response in writing, at least two (2) Business Days prior to the Submission Deadline, only to the Bidder who requested approval of the substitute.
- B6.6.1 The Bidder requesting and obtaining the approval of a substitute shall be entirely responsible for disseminating information regarding the approval to any person or persons he wishes to inform.
- B6.7 If the Contract Administrator approves a substitute as an “approved equal”, any Bidder may use the approved equal in place of the specified item.
- B6.8 If the Contract Administrator approves a substitute as an “approved alternative”, any Bidder bidding that approved alternative may base his Total Bid Price upon the specified item but may also indicate an alternative price based upon the approved alternative. Such alternatives will be evaluated in accordance with B15.
- B6.9 No later claim by the Contractor for an addition to the Total Bid Price because of any other changes in the Work necessitated by the use of an approved equal or an approved alternative will be considered.
- B6.10 Notwithstanding B6.2 to B6.9, and in accordance with B7.6 deviations inconsistent with the Bid Opportunity document shall be evaluated in accordance with B15.1(a).

B7. BID COMPONENTS

- B7.1 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;
- B7.2 Further to B7.1, the Bidder should include the written correspondence from the Contract Administrator approving a substitute in accordance with B6.
- B7.3 All components of the Bid shall be fully completed or provided, and submitted by the Bidder no later than the Submission Deadline, with all required entries made clearly and completely, to constitute a responsive Bid.
- B7.4 The Bid shall be submitted enclosed and sealed in an envelope clearly marked with the Bid Opportunity number and the Bidder's name and address.
- B7.4.1 Samples or other components of the Bid which cannot reasonably be enclosed in the envelope may be packaged separately, but shall be clearly marked with the Bid Opportunity number, the Bidder's name and address, and an indication that the contents are part of the Bidder's Bid.
- B7.5 Bidders are advised not to include any information/literature except as requested in accordance with B7.1.
- B7.6 Bidders are advised that inclusion of terms and conditions inconsistent with the Bid Opportunity document, including the General Conditions, will be evaluated in accordance with B15.1(a).
- B7.7 Bids submitted by facsimile transmission (fax) or internet electronic mail (e-mail) will not be accepted.
- B7.8 Bids shall be submitted to:
The City of Winnipeg
Corporate Finance Department
Materials Management Division
185 King Street, Main Floor
Winnipeg MB R3B 1J1
- B8. BID**
- B8.1 The Bidder shall complete Form A: Bid, making all required entries.
- B8.2 Paragraph 2 of Form A: Bid shall be completed in accordance with the following requirements:
 - (a) if the Bidder is a sole proprietor carrying on business in his own name, his name shall be inserted;
 - (b) if the Bidder is a partnership, the full name of the partnership shall be inserted;
 - (c) if the Bidder is a corporation, the full name of the corporation shall be inserted;
 - (d) if the Bidder is carrying on business under a name other than his own, the business name and the name of every partner or corporation who is the owner of such business name shall be inserted.
- B8.2.1 If a Bid is submitted jointly by two or more persons, each and all such persons shall identify themselves in accordance with B8.2.
- B8.3 In Paragraph 3 of Form A: Bid, the Bidder shall identify a contact person who is authorized to represent the Bidder for purposes of the Bid.
- B8.4 Paragraph 12 of Form A: Bid shall be signed in accordance with the following requirements:

- (a) if the Bidder is a sole proprietor carrying on business in his own name, it shall be signed by the Bidder;
- (b) if the Bidder is a partnership, it shall be signed by the partner or partners who have authority to sign for the partnership;
- (c) if the Bidder is a corporation, it shall be signed by its duly authorized officer or officers and the corporate seal, if the corporation has one, should be affixed;
- (d) if the Bidder is carrying on business under a name other than his own, it shall be signed by the registered owner of the business name, or by the registered owner's authorized officials if the owner is a partnership or a corporation.

B8.4.1 The name and official capacity of all individuals signing Form A: Bid should be printed below such signatures.

B8.5 If a Bid is submitted jointly by two or more persons, the word "Bidder" shall mean each and all such persons, and the undertakings, covenants and obligations of such joint Bidders in the Bid and the Contract, when awarded, shall be both joint and several.

B9. PRICES

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

B9.2 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.

B9.3 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.

B9.4 Payments to Non-Resident Contractors are subject to Non-Resident Withholding Tax pursuant to the Income Tax Act (Canada).

B10. QUALIFICATION

B10.1 The Bidder shall:

- (a) undertake to be in good standing under The Corporations Act (Manitoba), or properly registered under The Business Names Registration Act (Manitoba), or otherwise properly registered, licensed or permitted by law to carry on business in Manitoba; and
- (b) be financially capable of carrying out the terms of the Contract; and
- (c) have all the necessary experience, capital, organization, and equipment to perform the Work in strict accordance with the terms and provisions of the Contract.

B10.2 The Bidder and any proposed Subcontractor (for the portion of the Work proposed to be subcontracted to them) shall:

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

B10.3 The Bidder and/or any proposed Subcontractor (for the portion of the Work proposed to be subcontracted to them) shall:

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

- B10.4 Further to B10.3(c), the Bidder shall, within 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 valid COR certification number under the Certificate of Recognition (COR) Program administered by the Manitoba Construction Safety Association or by the Manitoba Heavy Construction Association's Safety, Health and Environment Program; or
 - (b) a report or letter to that effect from an independent reviewer acceptable to the City. (A list of acceptable reviewers and the review template are available on the Information Connection page at The City of Winnipeg, Corporate Finance, Materials Management Division website at <http://www.winnipeg.ca/matmgt>)
- B10.5 The Bidder shall submit, within three (3) Business Days of a request by the Contract Administrator, proof satisfactory to the Contract Administrator of the qualifications of the Bidder and of any proposed Subcontractor.
- B10.6 The Bidder shall provide, on the request of the Contract Administrator, full access to any of the Bidder's equipment and facilities to confirm, to the Contract Administrator's satisfaction, that the Bidder's equipment and facilities are adequate to perform the Work.

B11. BID SECURITY

- B11.1 The Bidder shall provide bid security in the form of:
- (a) a bid bond, in the amount of at least ten percent (10%) of the Total Bid Price, and agreement to bond of a company registered to conduct the business of a surety in Manitoba, in the form included in the Bid Submission (Form G1: Bid Bond and Agreement to Bond); or
 - (b) an irrevocable standby letter of credit, in the amount of at least ten percent (10%) of the Total Bid Price, and undertaking issued by a bank or other financial institution registered to conduct business in Manitoba and drawn on a branch located in Winnipeg, in the form included in the Bid Submission (Form G2: Irrevocable Standby Letter of Credit and Undertaking); or
 - (c) a certified cheque or draft payable to "The City of Winnipeg", in the amount of at least fifty percent (50%) of the Total Bid Price, drawn on a bank or other financial institution registered to conduct business in Manitoba.
- B11.1.1 If the Bidder submits alternative bids, the bid security shall be in the amount of the specified percentage of the highest Total Bid Price submitted.
- B11.1.2 All signatures on bid securities shall be original.
- B11.1.3 The Bidder shall sign the Bid Bond.
- B11.1.4 The Surety shall sign and affix its corporate seal on the Bid Bond and the Agreement to Bond.
- B11.2 The bid security of the successful Bidder and the next two lowest evaluated responsive and responsible Bidders will be released by the City when a Contract for the Work has been duly executed by the successful Bidder and the performance security furnished as provided herein. The bid securities of all other Bidders will be released when a Contract is awarded.
- B11.2.1 Where the bid security provided by the successful Bidder is in the form of a certified cheque or draft pursuant to B11.1(c), it will be deposited and retained by the City as the performance security and no further submission is required.
- B11.2.2 The City will not pay any interest on certified cheques or drafts furnished as bid security or subsequently retained as performance security.

B11.3 The bid securities of all Bidders will be released by the City as soon as practicable following notification by the Contract Administrator to the Bidders that no award of Contract will be made pursuant to the Bid Opportunity.

B12. OPENING OF BIDS AND RELEASE OF INFORMATION

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

B12.1.1 Bidders or their representatives may attend.

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

B12.2 Following the submission deadline, the names of the Bidders and their Total Bid Prices (unevaluated, and pending review and verification of conformance with requirements) will be available on the Closed Bid Opportunities (or Public/Posted Opening & Award Results) page at The City of Winnipeg, Corporate Finance, Materials Management Division website at <http://www.winnipeg.ca/matmgt>

B12.3 After award of Contract, the name(s) of the successful Bidder(s) and the Contract amount(s) will be available on the Closed Bid Opportunities (or Public/Posted Opening & Award Results) page at The City of Winnipeg, Corporate Finance, Materials Management Division website at <http://www.winnipeg.ca/matmgt>

B12.4 The Bidder is advised that any information contained in any Bid may be released if required by City policy or procedures, by The Freedom of Information and Protection of Privacy Act (Manitoba), by other authorities having jurisdiction, or by law.

B13. IRREVOCABLE BID

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

B13.2 The acceptance by the City of any Bid shall not release the Bids of the next two lowest evaluated responsive Bidders and these Bidders shall be bound by their Bids on such Work until a Contract for the Work has been duly executed and the performance security furnished as herein provided, but any Bid shall be deemed to have lapsed unless accepted within the time period specified in Paragraph 11 of Form A: Bid.

B14. WITHDRAWAL OF BIDS

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

B14.1.1 Notwithstanding C23.3, the time and date of receipt of any notice withdrawing a Bid shall be the time and date of receipt as determined by the Manager of Materials.

B14.1.2 The City will assume that any one of the contact persons named in Paragraph 3 of Form A: Bid or the Bidder's authorized representatives named in Paragraph 12 of Form A: Bid, and only such person, has authority to give notice of withdrawal.

B14.1.3 If a Bidder gives notice of withdrawal prior to the Submission Deadline, the Manager of Materials will:

- (a) retain the Bid until after the Submission Deadline has elapsed;
- (b) open the Bid to identify the contact person named in Paragraph 3 of Form A: Bid and the Bidder's authorized representatives named in Paragraph 12 of Form A: Bid; and
- (c) if the notice has been given by any one of the persons specified in B14.1.3(b), declare the Bid withdrawn.

B14.2 A Bidder who withdraws his Bid after the Submission Deadline but before his Bid has been released or has lapsed as provided for in B13.2 shall be liable for such damages as are imposed upon the Bidder by law and subject to such sanctions as the Chief Administrative Officer considers appropriate in the circumstances. The City, in such event, shall be entitled to all rights and remedies available to it at law, including the right to retain the Bidder's bid security.

B15. EVALUATION OF BIDS

B15.1 Award of the Contract shall be based on the following bid evaluation criteria:

- (a) compliance by the Bidder with the requirements of the Bid Opportunity, or acceptable deviation there from (pass/fail);
- (b) qualifications of the Bidder and the Subcontractors, if any, pursuant to B10B9.4 (pass/fail);
- (c) Total Bid Price;
- (d) economic analysis of any approved alternative pursuant to B6.

B15.2 Further to B15.1(a), the Award Authority may reject a Bid as being non-responsive if the Bid is incomplete, obscure or conditional, or contains additions, deletions, alterations or other irregularities. The Award Authority may reject all or any part of any Bid, or waive technical requirements or minor informalities or irregularities, if the interests of the City so require.

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

B15.4 Further to B15.1(c), the Total Bid Price shall be the sum of the quantities multiplied by the unit prices for each item shown on Form B: Prices.

B15.4.1 If there is any discrepancy between the Total Bid Price written in figures, the Total Bid Price written in words and the sum of the quantities multiplied by the unit prices for each item, the sum of the quantities multiplied by the unit prices for each item shall take precedence.

B15.4.2 Further to B15.1(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.

B16. AWARD OF CONTRACT

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

B16.2 The City will have no obligation to award a Contract to a Bidder, even though one or all of the Bidders are determined to be responsible and qualified, and the Bids are determined to be responsive.

B16.2.1 Without limiting the generality of B16.2, the City will have no obligation to award a Contract where:

- (a) the prices exceed the available City funds for the Work;
- (b) the prices are materially in excess of the prices received for similar work in the past;
- (c) the prices are materially in excess of the City's cost to perform the Work, or a significant portion thereof, with its own forces;
- (d) only one Bid is received; or
- (e) in the judgment of the Award Authority, the interests of the City would best be served by not awarding a Contract.

B16.3 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 B15.

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

PART C - GENERAL CONDITIONS

C1. GENERAL CONDITIONS

- C1.1 The *General Conditions for Construction* (Revision 2006 12 15) are applicable to the Work of the Contract.
- C1.1.1 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
- C1.2 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 renewal of polybutylene water services in the River Park South neighbourhood of the City of Winnipeg.

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

- (a) Replacement of approximately 140 water services.
- (b) Abandonment of existing water services.
- (c) Restoration of pavement and boulevard areas.

D3. CONTRACT ADMINISTRATOR

D3.1 The Contract Administrator is WARDROP (doing business as TETRA TECH) represented by:

Mr. Gord Steiss, C.E.T.
Manager of Field Services
400 – 161 Portage Avenue East
Winnipeg, MB R3B 0Y4

Telephone No. (204) 954-6800
Facsimile No. (204) 988-0546
Email gord.steiss@tetrattech.com

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

D4. CONTRACTOR'S SUPERVISOR

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

D5. NOTICES

D5.1 Except as provided for in 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.

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

D5.3 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

- D5.4 All notices, requests, nominations, proposals, consents, approvals, statements, authorizations, documents or other communications required to be submitted or returned to the City Solicitor shall be sent to the following address or facsimile number:

The City of Winnipeg
Legal Services Department
Attn: Director of Legal Services
185 King Street, 3rd Floor
Winnipeg MB R3B 1J1
Facsimile No.: (204) 947-9155

D6. FURNISHING OF DOCUMENTS

- D6.1 Upon award of the Contract, the Contractor will be provided with five (5) complete sets of the Bid Opportunity. If the Contractor requires additional sets of the Bid Opportunity, they will be supplied to him at cost.

SUBMISSIONS

D7. AUTHORITY TO CARRY ON BUSINESS

- D7.1 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.

D8. SAFE WORK PLAN

- D8.1 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.
- D8.2 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>

D9. INSURANCE

- D9.1 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) automobile liability insurance for owned automobiles used for or in connection with the Work in the amount of at least two million dollars (\$2,000,000.00) at all times during the performance of the Work and until the date of Total Performance;
 - (c) 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.

- D9.2 Deductibles shall be borne by the Contractor.
- D9.3 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.
- D9.4 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.

D10. PERFORMANCE SECURITY

- D10.1 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.
- D10.1.1 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.
- D10.2 If the bid security provided in his Bid was not a certified cheque or draft pursuant to B11.1(c), the Contractor shall provide the City Solicitor with the required performance security within seven (7) Calendar Days of notification of the award of the Contract by way of letter of intent and prior to the commencement of any Work on the Site but in no event later than the date specified in C4.1 for the return of the executed Contract.

D11. SUBCONTRACTOR LIST

- D11.1 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.

D12. SECURITY CLEARANCE

- B1.1 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;
- shall be required to obtain a Criminal Record Search Certificate from the police service having jurisdiction at his place of residence.
- D12.2 Prior to the commencement of any Work specified in B1.1, 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.

- D12.3 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 B1.1.
- D12.4 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.
- D12.5 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 B1.1.

SCHEDULE OF WORK

D13. COMMENCEMENT

- D13.1 The Contractor shall not commence any Work until he is in receipt of a letter of intent from the Award Authority authorizing the commencement of the Work.
- D13.2 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 D7;
 - (ii) evidence of the workers compensation coverage specified in C6.15;
 - (iii) the Safe Work Plan specified in D8;
 - (iv) evidence of the insurance specified in D9;
 - (v) the performance security specified in D10;
 - (vi) the Subcontractor list specified in D11; and
 - (vii) the security clearances specified in D12.
 - (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. SUBSTANTIAL PERFORMANCE

- D14.1 The Contractor shall achieve Substantial Performance within forty five (45) consecutive Working Days of the commencement of the Work as specified in D13 or by September 20, 2011, whichever comes first.
- D14.2 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.
- D14.3 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.

D15. TOTAL PERFORMANCE

- D15.1 The Contractor shall achieve Total Performance within fifty five (55) consecutive Working Days of the commencement of the Work as specified in D13 or by October 14, 2011, whichever comes first.
- D15.2 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.
- D15.3 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.

D16. LIQUIDATED DAMAGES

- D16.1 If the Contractor fails to achieve Substantial Performance or Total Performance in accordance with the Contract by the days fixed herein for same, the Contractor shall pay the City the following amounts per Working Day for each and every Working Day following the days fixed herein for same during which such failure continues:
- (a) Substantial Performance - One Thousand dollars (\$1,000.00);
 - (b) Total Performance – Five Hundred dollars (\$500.00).
- D16.2 The amount specified for liquidated damages in D16.1 is based on a genuine pre-estimate of the City's damages in the event that the Contractor does not achieve Substantial Performance by the day fixed herein for same.
- D16.3 The City may reduce any payment to the Contractor by the amount of any liquidated damages assessed.

D17. SCHEDULED MAINTENANCE

- D17.1 The Contractor shall perform the following scheduled maintenance in the manner and within the time periods required by the Specifications:
- (a) Landscape Maintenance as specified in CW 3510.
- D17.2 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

D18. JOB MEETINGS

- D18.1 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.
- D18.2 The Contract Administrator reserves the right to cancel any job meeting or call additional job meetings whenever he deems it necessary.

D19. TRAFFIC CONTROL AND MAINTENANCE OF ACCESS

- D19.1 Traffic control shall be carried out in accordance with Section 3.7 of CW 1130.
- D19.2 Further to D19.1, should the Contract Administrator 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 these requirements.
- D19.3 There are no Regional Streets in this Contract area.
- D19.4 Traffic control during construction shall be as follows:
- (a) Paddington Road (Priority 2 Collector Street)
 - (i) Maintain one thru lane at all times.
 - (ii) Arrange with Winnipeg Transit to relocate the northbound bus stop near #440 Paddington Road during construction.
 - (iii) No parking during construction.
- D19.5 Further to Section 3.6 of CW 1130, the Contractor shall maintain safe pedestrian crossing at intersections at all times. 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. 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.
- D19.6 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.

D20. WORK BY OTHERS

- D20.1 There is no known work by the City of Winnipeg or other jurisdictions in the project area.

D21. PRIME CONTRACTOR – THE WORKPLACE SAFETY AND HEALTH ACT (MANITOBA)

- D21.1 Further to C6.24, the Contractor shall be the Prime Contractor and shall serve as, and have the duties of the Prime Contractor in accordance with The Workplace Safety and Health Act (Manitoba).

MEASUREMENT AND PAYMENT

D22. PAYMENT

- D22.1 Further to C12, the City may at its option pay the Contractor by direct deposit to the Contractor's banking institution.

D23. WATER USED ON CITY OF WINNIPEG CONSTRUCTION PROJECTS

- D23.1 Further to Section 3.7 of CW 1120, charges incurred for the permit, water meters and sewer use 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. The City of Winnipeg Bid Opportunity number shall be noted on each permit.

WARRANTY

D24. WARRANTY

D24.1 Warranty is as stated in C13.

FORM H1: PERFORMANCE BOND
(See D10)

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. 317-2011

2011 WATER SERVICE REPLACEMENT PROGRAM – CONTRACT 11

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 D10)

(Date)

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

RE: PERFORMANCE SECURITY - BID OPPORTUNITY NO. 317-2011

2011 WATER SERVICE REPLACEMENT PROGRAM – CONTRACT 11

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

(Name of Contractor)

(Address of Contractor)

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

_____ Canadian dollars.

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

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

Partial drawings are permitted.

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

(Address)

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

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

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

(Date)

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

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

This credit is subject to the Uniform Customs and Practice for Documentary Credit (1993 Revision), International Chamber of Commerce Publication Number 500.

(Name of bank or financial institution)

Per: _____
(Authorized Signing Officer)

Per: _____
(Authorized Signing Officer)

PART E - SPECIFICATIONS

GENERAL

E1. APPLICABLE SPECIFICATIONS 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>Drawing No.</u>	<u>Drawing Name/Title</u>
	Cover Sheet
D-12397	Willowbend Crescent, Paddington Road (Warde Av to 253m north of Warde Av)
D-12398	Southwalk Bay

E2. PROVISIONAL ITEMS

- E2.1 The Provisional items listed in Form B: Prices are a part of the Contract.
- E2.2 No Work listed under these provisions will be performed by the Contractor without prior authorization from the Contract Administrator. All Work carried out will be within the construction areas listed in the Specifications.
- E2.3 The City reserves the right to diminish all or any portion of the work listed as Provisional Items and no claim shall be made for damages on ground of loss of anticipated profit or any other ground.

E3. PROTECTION OF EXISTING TREES

- E3.1 The Contractor shall take the following precautionary steps to avoid damage from his construction activities to existing boulevard trees within the limits of the construction area.
- E3.1.1 Do not stockpile materials and soil or park vehicles and equipment on boulevards within 2 metres of trees.
- E3.1.2 Strap mature tree trunks with 25 x 150 x 2400 wood planks. Smaller trees shall be similarly protected using appropriately sized planks.
- E3.1.3 Excavations shall be carried out in a manner to minimize damage to existing root systems. Where roots must be cut to facilitate an excavation they shall be neatly pruned at the face of the excavation.
- E3.1.4 Work on site shall be carried out in a manner to minimize damage to existing tree branches. Where damage to tree branches does occur, the Contractor shall neatly prune the damaged branch.
- E3.1.5 American elm trees shall not be pruned between April 1st and August 1st and Siberian elm trees between April 1st and July 1st of any year as part of the provisions of The Dutch Elm Disease Act.

E3.2 All damage to existing trees due to the Contractor's construction activities shall be repaired to the requirements and satisfaction of the City of Winnipeg, Public Works Department, Forestry Branch.

E3.3 No separate measurement or payment will be made for protection of trees.

E4. REFUSE AND RECYCLING COLLECTION

E4.1 While access to refuse and/or recycling collection vehicles is restricted, on collection day(s) the Contractor shall move all of the affected property owners refuse and/or recycling materials to a nearby common area, prior to 7 a.m. to permit the normal collection vehicles to collect the materials. Immediately following recycling collection the Contractor shall return recycling receptacles to the addresses marked on the receptacles.

E4.2 All streets within this contract are Refuse and Recycling Collection Day 4.

E4.3 No measurement or payment will be made for the Work associated with this specification.

E5. STREET LIGHT CABLE

E5.1 Description

E5.1.1 This specification shall cover the repair of Street Light cable damaged by construction and surface restoration.

E5.2 Construction Methods

E5.2.1 At locations where street lighting cable is to be replaced as directed by the Contract Administrator, the Contractor shall, after completion of backfilling and grading of watermain trenches, construct a trench suitable for the placement of street lighting cable or install a 50mm HDPE conduit by trenchless methods. The HDPE conduit will be supplied by the street lighting utility at no cost to the Contractor.

E5.2.2 The trench or cored pipe shall be constructed on the same alignment as the street light bases or as directed by the Contract Administrator. The bottom of the trench shall be between 600mm and 750mm below the top of the curb and shall be no more than 150mm in width. The invert of cored pipe shall be 600mm and 750mm below the top of curb.

E5.2.3 The Contractor shall provide 48 hours notice to the Contract Administrator prior to the commencement of trenching or coring operations in order to allow coordination of the cable installation by the street lighting utility.

E5.2.4 Upon completion of cable installation by the street lighting utility, the Contractor shall backfill, compact and grade the boulevard sections disturbed. Backfill shall be Class 4 Backfill in accordance with CW 2030.

E5.2.5 Restoration including sodding of boulevards disturbed during street light cable installation will be incidental to the Work.

E5.3 Method of Measurement and Payment

E5.3.1 Street Light Cable Trenching: Trenching for the installation of street lighting cable shall be measured on a linear metre basis based on measurements taken by the Contract Administrator. Payment shall be made at the Contract Unit Price for "Street Light Cable – Trench Installation" in Form B of the Bid Submission, measured as specified herein which price shall be payment in full for performing all operations and supply all materials and all other incidentals to the work included in this specification.

E5.3.2 Street Light Cable Installed in Cored HDPE Conduit: The coring and installation of HDPE conduit, and installation of Street Light Cable shall be measured on a linear metre bases from shaft face to shaft face based on measurements taken by the Contract Administrator. Payment shall be made at the Contract Unit Price for "Street Lighting Cable – Trenchless Installation" in Form B of the Bid Submission, measured as specified herein which price

shall be payment in full for performing all operations and supplying all materials and all other incidental to the work included in this specification.

E6. TEMPORARY PRESSURIZED WATER SUPPLY

- E6.1 Install a temporary pressurized water supply in accordance with CW 2110 when there are more than four water services being renewed on a valve to valve watermain segment.
- E6.2 Temporary pressurized water supplies will be measured on a per segment basis and will be paid for at the Contract Unit Price for "Temporary Pressurized Water Supply" in Form B of the Bid Submission.

E7. EXCAVATION AT WATERMAIN

- E7.1 Excavation at the watermain shall be done in accordance with CW 2030 and CW 2110.
- E7.2 Excavation at the watermain shall be measured on a per unit basis and shall be paid for at the Contract Unit Price for "Excavation at Watermain" in Form B of the Bid Submission. All work associated with the excavation and boulevard restoration following the completion of works shall be included in the price for "Excavation at Watermain". Excavation for connections within 3.0 m of each other will be deemed a single excavation, larger excavations for services in close proximity but further than 3.0 m apart will be counted as separate excavations. Excavation to abandon an old corporation stop when relocating the new corporation to another location (i.e. outside of pavement) will be counted as separate excavations.

E8. EXPLORATORY EXCAVATION FOR SERVICES

- E8.1 When renewing service lines shown on the drawings as lead or plastic (poly), the first excavation shall be at the property line. If the service line material is discovered to be copper the contractor shall advise the contract administrator and backfill the hole without renewing the service or curb stop. The excavation shall then be considered an exploratory excavation.
- E8.2 Costs for excavating and backfilling as part of an exploratory excavation will be paid for at the Contract Unit Price for "Exploratory Excavation" in Form B of the Bid Submission.
- E8.3 Costs for excavating and backfilling at the property line as part of a service renewal are to be included in the price of the curb stop replacement.

E9. CONNECTING NEW COPPER WATER SERVICES TO EXISTING WATERMAINS

- E9.1 Description
 - E9.1.1 This specification shall cover the connection of new copper water services to existing watermains.
- E9.2 Construction Methods
 - E9.2.1 Asbestos Cement or PVC Watermains
 - (a) Abandon existing water service in accordance with CW 2110. If existing corporation stop is direct tapped, turn corporation to closed position and cut the water service piping in accordance CW 2110. If existing service utilizes a service saddle, remove the existing service saddle in accordance with CW 2110.
 - (b) Clean and smooth existing watermain to facilitate installation of new service saddle. Install new service saddle over existing corporation hole in watermain in accordance with CW 2110. Install new corporation in new service saddle in accordance with CW 2110.
 - (c) If new corporation is beneath pavement or other obstruction, relocate to boulevard area. Install stainless steel repair clamp at former corporation stop or service saddle location. Install new service saddle and corporation stop at new location in accordance with this specification.

- (d) Where the drawings indicate the service as previously frozen, abandon the existing corporation and reverse tap the new connection in accordance with CW 2110.
- (e) Insulate new water service connections to existing watermains in accordance with CW 2110 where the watermain or service depth is less than 2.1 m.

E9.3 Measurement & Payment

- E9.3.1 Connecting new 20 and 25 mm copper water services to existing watermains will be measured on a unit basis for each material type of watermain and paid for at the Contract Unit Price for "Connecting New Copper Water Services to Existing Watermains" in Form B of the Bid Submission.
- E9.3.2 Repair of watermains using a stainless steel repair clamp will be measured on a unit basis for each size of watermain and paid for at the Contract Unit Price for "Watermain Repair – Replacement" in Form B of the Bid Submission.
- E9.3.3 Renewal of the watermain including inline connections to will be measured on a length basis for each size of watermain and paid for at the Contract Unit Price for "Watermain Repair – Stainless Steel Repair Clamp" in Form B of the Bid Submission.

E10. CONNECTING NEW WATER SERVICES TO EXISTING WATER SERVICES

E10.1 Description

- E10.1.1 This specification shall cover the connection of new copper water services to existing water services.

E10.2 Construction Methods

- E10.2.1 Connect to existing copper water service in accordance with CW 2110.
- E10.2.2 If it is determined that the existing private water service is plastic, the property owner will be notified similar to that described for lead services in accordance with CW 2110 "Connection to Existing Lead Services" to provide the opportunity for replacement. The Contractor shall maintain the excavation at the curb stop open for up to 5 working days to allow connection of new water service if the property owner decides to replace existing service on private property. The Contractor shall backfill the excavation after connection of the new water service or after 5 working days whichever occurs first unless directed otherwise by the Contract Administrator.

E10.3 Measurement & Payment

- E10.3.1 Connecting new 20 and 25 mm copper water services to existing water services will be measured on a unit basis for each size and paid for at the Contract Unit Price for "Connecting New Water Services to Existing Water Services" in Form B of the Bid Submission.
- E10.3.2 Supply and installation of couplings and up to 1.0 m of new copper water service pipe measured from the new curb stop will be included in the connection.
- E10.3.3 Maintaining curb stop excavations for replacement of private services by others will be measured on a unit basis per working day per excavation and paid for at the Contract Unit price for "Maintaining Curb Stop Excavations". Number of units to be paid for will be total number of excavations per working day that are maintained in accordance with this specification, accepted and measured by the Contract Administrator.

E11. REPLACEMENT OF PRIVATE WATER SERVICE

- E11.1 The contractor shall not be compensated for "Connecting New Water Services to Existing Water Services" unit price at any location where a homeowner chooses to renew their private lead or plastic (poly) water service.

E12. EXPLORATORY EXCAVATIONS NEAR SOUTH ST. VITAL FEEDERMAIN

- E12.1 Expose the existing 600 mm South St. Vital Feedermain on Paddington Road at locations identified by the Contract Administrator to confirm the location and depth of the feedermain. All excavation deeper than 1.0 m shall be done using vacuum excavation methods to minimize the potential for damage to the feedermain.
- E12.2 The Contract Administrator shall estimate the depth of the feedermain at each service replacement location based on several exploratory excavations.
- E12.3 Backfill exploratory excavations in accordance with CW 2030, using Class 2 backfill in boulevard areas. No test excavations are planned beneath pavements. Flood tamping is not permitted overtop of the feedermain. Granular backfill shall be placed and mechanically compacted in maximum 300 mm thick lifts. Mechanical compaction equipment is limited to walk-behind Vibratory Plate Compactors only. Compaction using a backhoe / excavator bucket is not permitted due to the potential for over-compaction and vibration.
- E12.4 Exploratory excavations for the feedermain including excavation, backfilling, restoration and all related work will be measured on a unit basis and paid for at the Contract Unit Price of "Exploratory Excavation at Feedermain" in Form B of the Bid Submission.

E13. WORK NEAR SOUTH ST. VITAL FEEDERMAIN

- E13.1 The method used for excavation to expose the watermain for water service replacement shall depend upon the depth of the watermain in relationship to the feedermain as described in the following sections and shown on Sketch 1100120400-SKT-C0001-A in Appendix A.
- E13.1.1 Section A - Where the watermain is fully above the crown of the feedermain pipe, excavation by normal methods with a backhoe / excavator is permitted. An estimated 6 lots fall into this category.
- E13.1.2 Section B - Where the watermain is located near the crown of the feedermain pipe, excavation using a backhoe / excavator is permitted to a depth 1.0 m above the estimated crown of the feedermain. Exposure of the watermain below this depth must be by soft digging / vacuum excavation methods only. The remainder of the excavation to property line may be completed by normal excavation methods. An estimated 8 lots fall into this category.
- E13.1.3 Section C - Where the crown of the watermain is located below the crown of the feedermain, a higher standard of care is required to minimize the impact on the feedermain. Excavation to a depth 1.0 m above the estimated crown of the feedermain may be done by normal methods using a backhoe / excavator. Exposure of the watermain below this depth must be by soft digging / vacuum excavation methods only. Shoring and bracing may be required to minimize the loss of soil or bedding material from around the feedermain. A backhoe / excavator may be used to completion of the excavation to property line, but the backhoe is not permitted to sit overtop the feedermain or reach overtop of the feedermain. An estimated 6 lots fall into this category, all in close proximity to the feedermain offtake chamber located near #412 Paddington Road.
- E13.1.4 Section D - If the invert of watermain is found to be below the invert of the feedermain, then a very high standard of care is required when exposing the watermain. Note that this condition is not expected on Paddington Road. The excavation must be completed as described in Section C above, plus the addition of Engineered Shoring installed between the feedermain and watermain to minimize disruption to the feedermain. Engineered Shoring must comply with Specification E14.
- E13.2 Backfill near the feedermain to be done in accordance with CW 2030, using Class 2 backfill in boulevard areas. Flood tamping is not permitted in a zone within 2.5 m (horizontal offset) from the centreline of the feedermain pipe. Granular backfill shall be placed and mechanically compacted in maximum 300 mm thick lifts. Mechanical compaction equipment is limited to

walk-behind Vibratory Plate Compactors only. Compaction using a backhoe / excavator bucket is not permitted due to the potential for over-compaction and vibration.

- E13.3 Backfilling of the remainder of the excavation to property line may use Class 5 backfill done in accordance with CW 2030.
- E13.4 Excavation near the feedermain, backfilling, or restoration shall be incidental to the cost of water service replacement. However, all work associated with the design and provision of engineered shoring to protect the feedermain shall be measured on a unit basis per excavation requiring shoring and bracing, and paid for at the Contract Unit Price of "Engineered Shoring" in Form B of the Bid Submission.

E14. ENGINEERED SHORING

- E14.1 The type, strength, and amount of shoring and bracing shall be such as the nature of the ground and site conditions may require to protect the South St. Vital Feedermain from loss of bedding material below the pipe springline.
- E14.2 All material used for shoring construction shall be in a like-new condition, and shoring and bracing shall be so spaced and dimensioned as to prevent caving, loss of ground, surface settlement, or squeezing of the soil beyond the neat lines of excavation. Shoring material shall be free from defects that might impair its strength or suitability for the work. Sheeting/shoring and bracing shall conform to the latest revisions of the "Construction Safety Act" of the Department of Labour of the Government of Manitoba.
- E14.3 Prepare design calculations as required to facilitate review of the submission for conformance with the Contract Documents.
- E14.4 Submit Shop Drawings and design calculations for the shoring/excavation system designed and sealed by a Professional Engineer registered or licensed to practice in the Province of Manitoba and experienced in the structural design of shoring systems. The designer of the shoring system shall inspect the system during construction and certify, in writing to the Contract Administrator, that construction is in conformance with the approved design.
- E14.5 Shoring and bracing shall be removed in stages while backfilling the excavation.

E15. WATERMAIN RENEWAL AND REPAIR

- E15.1 Southwalk Bay has two locations where the watermain utilizes a single 90 degree bend situated beneath the roadway. Water services serving corner lots are clustered at these locations. Depending upon the location of service connections near these two locations, it may be more efficient to preserve the concrete pavement by renewing short sections of watermain using two 45 degree bends installed in the boulevard and abandoning the old 90 degree bend in place.
- E15.2 Localized watermain repair by either renewing short sections of pipe or using stainless steel repair clamps may also be necessary as described in E9.
- E15.3 Measurement & Payment
 - E15.3.1 Renewal of the watermain including inline connections to will be measured on a length basis for each size of watermain and paid for at the Contract Unit Price for "Watermain Repair – Replacement" in Form B of the Bid Submission.
 - E15.3.2 Installation of new 45 degree bend, thrust blocks and joint harnesses as required will be measured on a unit basis for each size of watermain and paid for at the Contract Unit Price for "Fittings" in Form B of the Bid Submission.
 - E15.3.3 Connection of new copper water services to the new watermain will be paid as per E9.

E16. SEWER INSPECTION

- E16.1 Inspect sewers in accordance with CW 2145 where the drawings indicate that the depth to sewer invert is greater than 2.0 m and less than 4.0 m.
- E16.2 No coding of sewer inspection videos will be required.
- E16.3 The length of sewer to be inspected shall be the distance between the location of service crossing and the nearest manhole.
- E16.4 Sewer inspection shall be measured on a length basis and paid for at the Contract Unit Price for "Sewer Inspection" in Form B of the Bid Submission.

E17. SEWER CLEANING

- E17.1 Further to E15, where an obstruction is preventing the camera from reaching the location of service crossing, the contractor shall notify the contract administrator and clean the sewer in accordance with CW 2140.
- E17.2 Sewer cleaning shall be measured on a length basis and paid for at the Contract Unit Price for "Sewer Cleaning" in Form B of the Bid Submission.

E18. SURFACE RESTORATIONS

- E18.1 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.

E19. PARTIAL SLAB PATCHES

- E19.1 Construct partial slab patches in accordance with CW 3230.
- E19.2 Partial Slab Patches shall be measured on an area basis and paid for at the Contract Unit Price per square metre for "Partial Slab Patches" in Form B of the Bid Submission.
- E19.3 No differentiation will be made for class of patch.
- E19.4 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.

E20. MISCELLANEOUS CONCRETE SLAB RENEWALS - SIDEWALKS

- E20.1 Construction of miscellaneous concrete slab renewals for sidewalks in accordance with CW 3225.
- E20.2 Miscellaneous concrete slab renewals for sidewalk shall be measured on an area basis and paid for at the Contract Unit Price per square metre of "Miscellaneous Concrete Slab Renewals – Sidewalk" in Form B of the Bid Submission .

E21. CONCRETE CURB RENEWALS

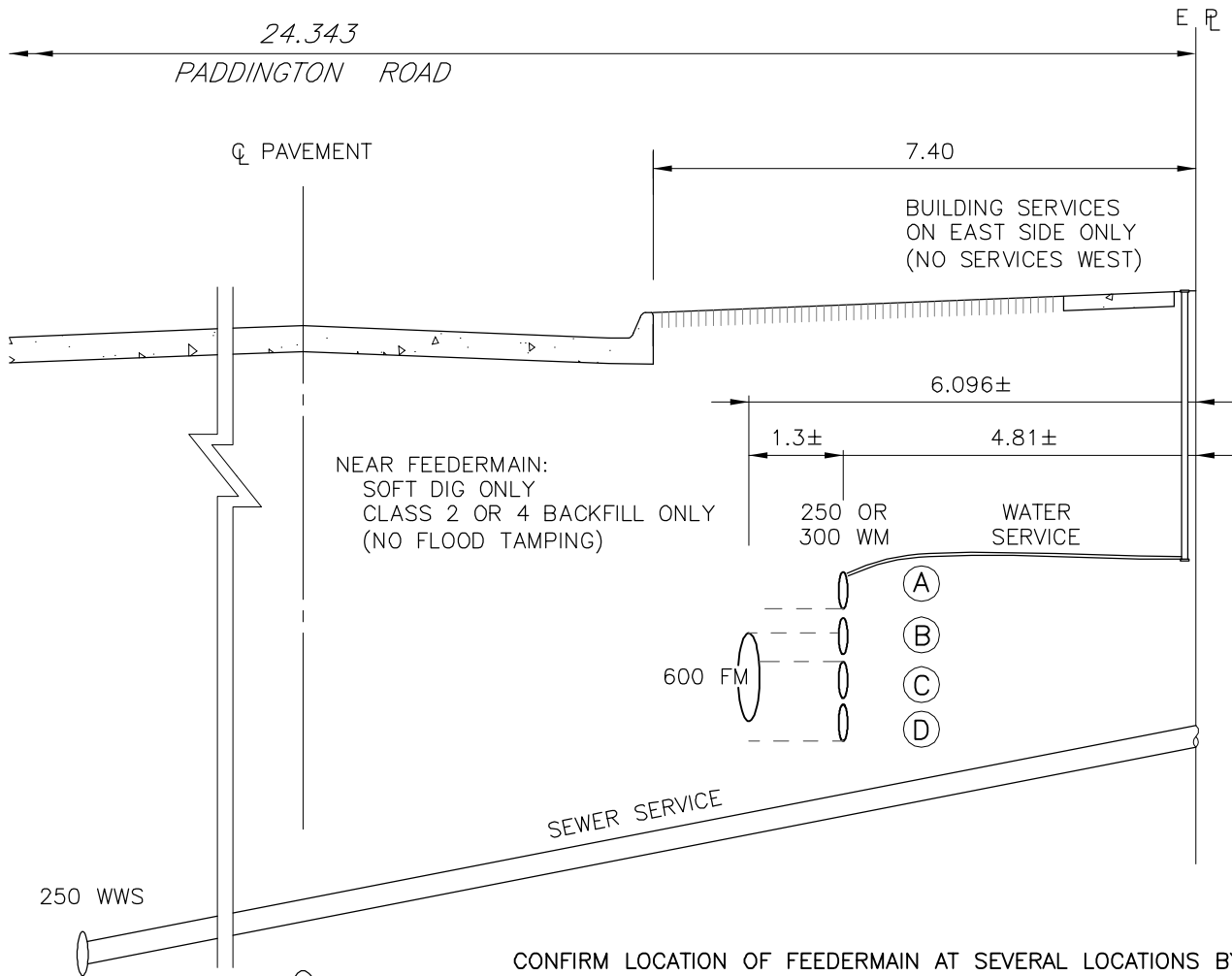
- E21.1 Construct concrete curb renewal in accordance with CW 3240.
- E21.2 Concrete curb renewal shall be measured on a length basis and paid for at the Contract Unit Price per lineal metre for "Concrete Curb Renewal" for each category of curb in Form B of the Bid Submission.

E22. TEMPORARY PAVEMENT RESTORATIONS

- E22.1 Given the short project duration, it is anticipated that permanent pavement restoration will follow the water services replacement on a street by street basis. If there is any delay in completing permanent pavement restoration, the Contractor shall maintain temporary restored surfaces until permanent restoration is complete at the following location(s):
- (a) Paddington Road
- E22.2 Further to clause 3.3 of CW 1130, where temporary surface restorations must be made to reopen lanes to traffic, the Contractor shall temporarily restore surface as follows:
- E22.2.1 Backfill as follows:
- (a) Beneath roadway pavements - backfill excavation with Class 1 Backfill extending to the underside of temporary pavement surfacing.
 - (b) Beneath sidewalks – backfill excavation with Class 3 backfill extending to the underside of temporary pavement surfacing.
- E22.2.2 Cap excavation in pavement as follows:
- (a) Paddington Road roadway pavement - Temporary pavement restorations to be 150 mm thick concrete pavement conforming to CW 2130, except that no tie bars, dowels, or reinforcing steel shall be required.
 - (b) Paddington Road sidewalks - Cap excavation in pavement with a minimum 50 millimetre thick layer of cold mix asphalt.
 - (c) Other locations – Cap excavation in pavement with a minimum 50 millimetre thick layer of cold mix asphalt.
- E22.3 All shafts and excavations designated for Class 3 backfill shall be flooded and jetted prior to installing temporary surface restorations.
- E22.4 Temporary concrete shall be maintained and/or replaced in such a manner that it does not present a hazard to pedestrians and vehicles to the satisfaction of the Contract Administrator. The cost of maintenance and/or replacement of temporary concrete shall be incidental to the installation of the temporary concrete until final concrete restorations by others are completed.
- E22.5 Method of Measurement and Payment
- E22.5.1 Temporary pavement surface restoration will be measured on an area basis and be paid for at the Contract Unit Price per square metre for “Temporary Pavement Restorations – 150 mm Concrete” or “Temporary Pavement Restorations – 50 mm Asphalt”, measured as specified herein. Payment shall be compensation in full for supplying all materials and performing all operations including preparation of the base, supplying forms, supply and placement of Portland Cement Concrete or Cold Mix Asphalt pavement complete and all other items incidental to the work included in this Specification.

APPENDIX A

Sketch 1100120400-SKT-C0001-A showing Service Renewal near 600 mm Feedermain on Paddington Road



NEAR FEEDERMAIN:
SOFT DIG ONLY
CLASS 2 OR 4 BACKFILL ONLY
(NO FLOOD TAMPING)

CONFIRM LOCATION OF FEEDERMAIN AT SEVERAL LOCATIONS BY SOFT DIGGING METHODS PRIOR TO COMMENCING WATER SERVICE REPLACEMENT WORK. DEPTH OF WATERMAIN NEXT TO FEEDERMAIN WILL DICTATE CONSTRUCTION METHODS.

1950 INTERCEPTOR

- (A) SECTION WHERE WM IS FULLY ABOVE CROWN OF FEEDERMAIN (6 LOTS - 380, 382, 386, 388, 392, 394 PADDINGTON ROAD) EXCAVATION WITH BACKHOE PERMITTED
- (B) SECTION WHERE WM IS NEAR CROWN OF FEEDERMAIN (8 LOTS - 404, 406, 442, 448, 452, 454, 458, 460 PADDINGTON ROAD) EXPOSE WATERMAIN BY SOFT DIG / VACUUM EXCAVATION ONLY
- (C) SECTION WHERE CROWN OF WM BELOW CROWN OF FEEDERMAIN (6 LOTS - 410, 416, 422, 428, 436, 440 PADDINGTON ROAD) EXPOSE WATERMAIN BY SOFT DIG / VACUUM EXCAVATION ONLY BACKHOE EXCAVATION FROM EAST SIDE OF WATERMAIN ONLY INSTALL SHORING BETWEEN FEEDERMAIN AND WATERMAIN AS REQUIRED
- (D) SECTION WHERE INVERT OF WM BELOW INVERT OF FEEDERMAIN (NOT EXPECTED ON THIS PROJECT)

SCALE: N. T. S.



THE CITY OF WINNIPEG
WATER AND WASTE DEPARTMENT

2011 WATER SERVICE REPLACEMENT PROGRAM
CONTRACT 11

SERVICE RENEWAL NEAR 600 FEEDERMAIN
No.380 - 460 PADDINGTON ROAD



PEOPLE, PASSION, PERFORMANCE.
TRUSTED GLOBALLY

DESIGNED BY: KJM	DRAWN BY: NL
CHECKED BY: GS	DATE: 11.04.14

DWG NO.
1100120400-SKT-C0001-A