



THE CITY OF WINNIPEG

BID OPPORTUNITY

BID OPPORTUNITY NO. 327-2012

2012 WATERMAIN RENEWALS – CONTRACT 8

TABLE OF CONTENTS

PART A - BID SUBMISSION

Form A: Bid	1
Form B: Prices	4
Form G1: Bid Bond and Agreement to Bond	10
Form G2: Irrevocable Standby Letter of Credit and Undertaking	12

PART B - BIDDING PROCEDURES

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

PART C - GENERAL CONDITIONS

C0. General Conditions	1
------------------------	---

PART D - SUPPLEMENTAL CONDITIONS

General

D1. General Conditions	1
D2. Scope of Work	1
D3. Contract Administrator	1
D4. Contractor's Supervisor	1
D5. Ownership of Information, Confidentiality and Non Disclosure	1
D6. Notices	2
D7. Furnishing of Documents	2

Submissions

D8. Authority to Carry on Business	2
D9. Safe Work Plan	2
D10. Insurance	3
D11. Performance Security	3
D12. Subcontractor List	3
D13. Detailed Work Schedule	4

Schedule of Work

D14. Commencement	4
D15. Sequence of work	5
D16. Critical Stages	5
D17. Substantial Performance	5
D18. Total Performance	5
D19. Liquidated Damages	6
D20. Scheduled Maintenance	6

Control of Work

D21. Job Meetings	6
D22. Prime Contractor – The Workplace Safety and Health Act (Manitoba)	6

D23. Work Practices on Asbestos-Cement Pipe	7
D24. Traffic management	7
Measurement and Payment	
D25. Payment	8
D26. Water Used on City of Winnipeg Construction Projects	8
Warranty	
D27. Warranty	8
Form H1: Performance Bond	9
Form H2: Irrevocable Standby Letter of Credit	11
Form J: Subcontractor List	13

PART E - SPECIFICATIONS

General

E1. Applicable Specifications and Drawings	1
--	---

General Requirements

E2. Provisional Items	1
E3. Protection of Existing trees	1
E4. Restorations	2
E5. Pedestrian Safety	2
E6. Temporary Surface Restorations	3
E7. Exposing Existing Utilities	3
E8. Partial Slab Patches	3
E9. Miscellaneous Concrete Slab Renewals – Sidewalks	4
E10. Concrete Curb Renewals	4
E11. Water Service Interruptions to Businesses and Apartment Buildings	4
E12. Connecting to Existing Water Services	4
E13. Special Sidewalk Restoration on North Side of Broadway	4
E14. Supply and Install Detecable Warning Surface Tiles	5

Appendix A – Security Clearance

Appendix B – Traffic Management Drawings

Appendix C – Detectable Warning Surface Tile Detail Drawings

PART B - BIDDING PROCEDURES

B1. CONTRACT TITLE

B1.1 2012 WATERMAIN RENEWALS – CONTRACT 8

B2. SUBMISSION DEADLINE

- B2.1 The Submission Deadline is 12:00 noon Winnipeg time, May 23, 2012.
- 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/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.
- 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/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.
- 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/she 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/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 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/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.

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/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.

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);

- (d) upon request of the Contract Administrator, obtain Security Clearances in accordance with Appendix A.

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/her 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/her 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/her Bid after the Submission Deadline but before his/her 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 B10 (pass/fail);
- (c) Total Bid Price;
- (d) economic analysis of any approved alternative pursuant to B6.

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

B15.3 Further to B15.1(b), the Award Authority shall reject any Bid submitted by a Bidder who does not demonstrate, in his/her Bid or in other information required to be submitted, that he/she 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/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 renewal and abandonments of various watermains in the City of Winnipeg.

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

- (a) Installation of approximately 830 meters of 150 to 250 mm diameter watermain pipe;
- (b) Abandonment or removal of existing watermains, hydrants and valves;
- (c) New hydrant and valve installations;
- (d) Reconnection or renewal of existing water services;
- (e) Restoration of pavements and boulevards;

D3. CONTRACT ADMINISTRATOR

D3.1 The Contract Administrator is Stantec Consulting Ltd., represented by:

Hartley Katz, P. Eng.
Senior Project Manager
1345 Waverley St., Winnipeg, MB R3T 5Y7
Telephone No. 204 489-5900
Facsimile No. 204 478-8981

D3.2 At the pre-construction meeting, Mr. Katz 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 B7.8

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 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.

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) Testing of temporary services;
 - (b) Construction of watermain renewals;
 - (c) Pressure Testing and Disinfections;
 - (d) Final tie-ins;
 - (e) Pavement restorations;
 - (f) 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 Notwithstanding the requirements of D15 Sequence of Work, commencement of the Work shall be at the discretion of the Contractor provided the commencement date will allow the achievement of the Critical Stages of the work in accordance with D16, Substantial Performance of the work in accordance with D17 and Total Performance of the work in accordance with D18.

D15. SEQUENCE OF WORK

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

D15.1.1 Watermain installation on Broadway shall not commence prior to June 15, 2012.

D15.1.2 Work shall not commence on Donald St. until all watermain installations are completed on Broadway. The Broadway crossing to the south at Donald St. shall be included with the Broadway Work. Final restorations shall commence on Broadway immediately following testing and tie-ins on Broadway.

D15.1.3 Work on Kennedy St. shall not commence until all watermain installations are completed on Donald St. Final restorations shall commence on Donald St. immediately following testing and tie-ins on Donald St.

D16. CRITICAL STAGES

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

- (a) All work on Broadway, including testing and final restorations, shall be completed by August 13, 2012.
- (b) All work on Donald St., including testing and final restorations, shall be completed by September 7, 2012.
- (c) All work on Kennedy, including testing and final restorations, shall be completed by September 19, 2012.

D17. SUBSTANTIAL PERFORMANCE

D17.1 The Contractor shall achieve Substantial Performance within forty-five (45) 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 fifty-five (55) 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, 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) Landscape 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. WORK PRACTICES ON ASBESTOS-CEMENT PIPE

D23.1 Further to C6.26(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 AC watermains shall conform to the following publications:

- D23.1.1 "Work Practices for Asbestos-Cement Pipe", AWWA No. M16, published by the American Water Works Association.
- D23.1.2 "Recommended Work Practices for AC Pipe", 1977, published by the AC Pipe producers Association.

D24. TRAFFIC MANAGEMENT

D24.1 Traffic control shall be carried out in accordance with clause 3.7 of CW 1130.

D24.2 Further to D25.1, 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.

D24.3 Regional Streets on this Project are:

- (a) Broadway
- (b) Kennedy Street
- (c) Edmonton Street
- (d) Carlton Street
- (e) Hargrave Street
- (f) Donald Street
- (g) York Avenue

D24.4 Further to D24.1 and D24.2 on Regional Streets construction activities shall be restricted as follows:

- (a) Broadway
 - (i) Maintain two westbound lanes between the hours of 15:30 and 17:30 except on weekends and holidays. No disruptions to traffic in either of these two lanes shall be permitted from 15:30 and 17:30 due to construction activity.
 - (ii) Maintain two eastbound lanes between the hours of 7:00 and 9:00 except on weekends and holidays. No disruptions to traffic in either of these two lanes shall be permitted from 7:00 and 9:00 due to construction activity.
- (b) Edmonton St. / Carlton St. / Hargrave St. / York Ave.
 - (i) Only one lane closure per street will be permitted at any given time.
- (c) Donald St.
 - (i) Maintain two southbound lanes between the hours of 15:30 and 17:30 except on weekends and holidays. No disruptions to traffic in either of these two lanes shall be permitted from 15:30 and 17:30 due to construction activity.
- (d) Kennedy St.
 - (i) Maintain two northbound lanes north of Broadway at all times.

D24.5 Maintain access to private approaches at all times.

D24.6 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.

D24.7 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

D25. PAYMENT

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

D26. WATER USED ON CITY OF WINNIPEG CONSTRUCTION PROJECTS

D26.1 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. The Bid Opportunity number shall be noted on each permit.

WARRANTY

D27. WARRANTY

D27.1 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. 327-2012

2012 WATERMAIN RENEWALS – CONTRACT 8

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. 327-2012
2012 WATERMAIN RENEWALS – CONTRACT 8

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-12930	Broadway – Kennedy Street to 10 E of Edmonton Street
D-12931	Broadway – 10 E of Edmonton Street to 10 E of Carlton Street
D-12932	Broadway – 10 E of Carlton Street to 10 E of Hargrave Street
D-12933	Broadway – 10 E of Hargrave Street to Donald Street
D-12934	Donald Street – Broadway to 50 N of Broadway
D-12935	Donald Street – 50 N of Broadway to 18 S of York Avenue
D-12936	Donald Street – 18 S of York Avenue to 56 N of York Avenue
D-12937	Kennedy Street – Broadway to 54 N of Broadway

GENERAL REQUIREMENTS

E2. PROVISIONAL ITEMS

- E2.1 The Provisional Items listed in the Schedule of Prices are part of the Contract.
- E2.2 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.
- E2.3 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.

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 and adjacent to the limits of construction:
- The Contractor shall not stockpile materials and soil or park vehicles and equipment on boulevards within 2 metres of any tree.
 - Mature tree trunks shall be strapped with 25 x 150 x 2400 (1" x 6" x 8") wood planks. Smaller trees shall be similarly protected using appropriately sized wood planks.

- (i) Excavations shall be carried out in such a manner so as to minimize damage to existing root systems. Roots over 50 mm in diameter that must be cut to facilitate an excavation shall be neatly pruned with a saw prior to excavation and coated with an appropriate wound dressing to prevent infection.
- (ii) Work on site shall be carried out in such a manner so as to minimize damage to existing tree branches. Where damage to tree branches does occur, the Contractor shall neatly prune the damaged branch.
- (c) American elm trees are not to be pruned between April 1st and August 1st and Siberian elm trees between April 1st and July 1st of any year under provisions of The Dutch Elm Disease Act.

E3.2 All damages to existing trees caused by the Contractor's construction activities shall be repaired to the requirements and satisfaction of the City of Winnipeg, Parks and Open Space Division, Urban Forestry Branch.

E3.3 No separate measurement or payment will be made for protection of trees. It shall be considered incidental to the Contract Work.

E4. RESTORATIONS

E4.1 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 five (5) working days from the date that the renewal is completed.

E4.2 Where excavations are to be restored with 24-hour early opening concrete as requested by the Contract Administrator, the Contractor shall make it their 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.

E5. PEDESTRAIN SAFETY

E5.1 During the construction period for each street, a temporary snow fence shall be installed where excavations are in present and at the following locations and in the following manner:

(a) **Broadway**

- (i) A temporary snow fence shall be installed to delineate a pedestrian corridor along the existing sidewalk on the north side of Broadway which will be a minimum of 2.0m in width and be kept clear of any obstructions from both construction activities and existing features such as benches, garbage cans, etc.
- (ii) At locations on the north or south side of Broadway where the entire width of the sidewalk will require excavation for underground installations, the Contractor shall perform this work during evening hours or on weekends.
- (iii) Pedestrians will not at any time be re-routed onto the traffic lanes on Broadway without consulting the Contract Administrator prior to setting up a temporary corridor onto the street. Wheelchair access is required for whatever configuration of pedestrian corridor is used.
- (iv) Access to all building entrances will be maintained at all times.
- (v) Street crossings for Kennedy Street, Edmonton Street, Carlton Street, Hargrave Street and Donald Street can be re-routed several meters north where required but must be clearly marked for pedestrians to cross. Where the Contract Administrator feels a crossing is unsafe due to excavations in the road or sidewalk, the Contractor will be required to provide a flag person to assist pedestrians across the road until the excavation can be restored to a safe condition.

(b) **Donald Street**

- (i) A temporary snow fence shall be installed to delineate a pedestrian corridor along the existing sidewalk on the east side of Donald Street which will be a minimum of

1.5m in width and be kept clear of any obstructions from both construction activities and existing features such as benches, garbage cans, etc.

- (ii) At locations on the east or west side of Donald Street where the entire width of the sidewalk will require excavation for underground installations, the Contractor shall perform this work during evening hours or on weekends. Evenings will begin at 18:00, Monday to Friday, except holidays.
 - (iii) Pedestrians will not at any time be re-routed onto the traffic lanes on Donald Street without consulting the Contract Administrator prior to setting up a temporary corridor onto the street. Wheelchair access is required for whatever configuration of pedestrian corridor is used.
 - (iv) Access to all building entrances will be maintained at all times.
 - (v) Street crossing for York Avenue can be re-routed to the opposite side of the road where required permitted in is set up in a safe manner as determined by the Contract Administrator.
- (c) Kennedy Street
- (i) Maintain a minimum of 1.5m sidewalk access at all times and be kept clear of any obstructions from both construction activities and existing features such as benches, garbage cans, etc.

E5.2 The Contractor shall be responsible for maintaining the snow fence in a proper working condition.

E5.3 No measurement for payment shall be made for this work.

E6. TEMPORARY SURFACE RESTORATIONS

E6.1 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 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.

E6.2 Contractor shall maintain temporarily restored surfaces until permanent restoration is complete.

E6.3 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. No payment shall be made for removal of temporary pavement prior to permanent restorations.

E7. EXPOSING EXISTING UTILITIES

E7.1 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 E8.

E8. PARTIAL SLAB PATCHES

E8.1 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.

E9. MISCELLANEOUS CONCRETE SLAB RENEWALS – SIDEWALKS

E9.1 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.

E10. CONCRETE CURB RENEWALS

E10.1 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.

E11. WATER SERVICE INTERRUPTIONS TO BUSINESSES AND APARTMENT BUILDINGS

E11.1 The Contractor shall be required to work evenings, nights and weekends where required to minimize water service interruptions on this project.

E11.2 The Contractor shall work closely with the Contract Administrator and the City to coordinate service connections and tie-ins to minimize the disruption of water service to all properties in the area.

E11.3 Contractor shall be required to submit a work plan to the Contract Administrator one week prior to any construction activities to illustrate how the work will be performed to minimize or eliminate water shut downs for this project. The plan will be reviewed by Contract Administrator and revised by the Contractor as required.

E11.4 No additional payment shall be made for measures taken to minimize water service disruptions.

E12. CONNECTING TO EXISTING WATER SERVICES

E12.1 This specification shall amend clause 4.22 of CW 2110.

E12.2 Connecting 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.

E13. SPECIAL SIDEWALK RESTORATION ON NORTH SIDE OF BROADWAY

E13.1 The existing sidewalk on the north side of Broadway between Edmonton Street and Carlton Street as well as the existing sidewalk between Donald Street and Smith Street were renewed in 2006 with larger unit pavers that are different than the typical small uni-stone pavers that are usually found on city sidewalks. This sidewalk renewal also included the installation of a structural soil trench and the installation of a subdrain pipe and irrigation pipe for the trees in the sidewalk.

E13.2 The Contractor shall restore this special sidewalk as per the details on the drawings.

E13.3 The Contractor shall carefully remove the existing pavers where required and store them in a manner in which they will be protected from damage until they can be placed back in their original configuration for final restoration. The Contractor shall be responsible for any damaged pavers due to neglect or abuse.

- E13.4 The Contractor shall excavate under the existing structural soil trench using trenchless methods to renew or reconnect existing water services. No excavation within the limits of the structural soil trench shall be permitted. The Contractor will attempt to leave any existing concrete headers in place to facilitate the restoration of the existing sidewalk where required.
- E13.5 Bedding and joint sand for sidewalk applications shall conform to the requirements of CW 3330.
- E13.6 Preparation of Sand Base
- (a) Install bedding sand in formed recesses in concrete sidewalk, depth as indicated on the Drawings. The sand layer shall be spread and leveled so that the concrete unit pavers when installed are 5 mm higher than the finished grade. No more sand shall be spread than can be covered in one day with concrete unit pavers. The bedding sand layer shall not be compacted prior to installation of the concrete unit pavers.
- E13.7 Installation of Unit Pavers
- (a) Contractor shall replace any concrete headers or blockouts damaged during excavation.
 - (b) Concrete pavers shall be installed in accordance with the requirements of CW 3330 and as shown on the drawings. Spaces between joints shall not exceed 3 mm, and shall be uniform and consistent while maintaining true patterns as they are existing.
 - (c) If cutting of pavers is required, the sawn edges shall be true, even and undamaged. Cuts shall occur at the end of rows and intersections of lines of paving only.
 - (d) Clay brick pavers shall be compacted into the bedding sand layer using approved vibratory compactors until they are at the proper grade, uniformly level and free of any movement. Joint sand shall be swept into the joints until full.
 - (e) Restoration of existing pavers will be subject to the inspection and acceptance of the Contract Administrator.
 - (f) Method of Measurement and Basis for Payment shall be as CW 3235 Adjustment of Precast Sidewalk Blocks. No additional payment shall be made for backfill, preparation of base material, or grading of the pavers for restoration purposes.
- E14. SUPPLY AND INSTALL DETECABLE WARNING SURFACE TILES**
- E14.1 This section covers the supply and installation of detectable warning surface tiles in sidewalk ramps that would have to be restored if disturbed during construction activities.
- E14.2 Referenced Standard Construction Specifications and Standard Details
- (a) CW 3235 - Renewal of Existing Miscellaneous Concrete Slabs
 - (b) CW 3240 - Renewal of Existing Curbs
 - (c) CW 3310 - Portland Cement Concrete Pavement Works
 - (d) CW 3325 - Portland Cement Concrete Sidewalk
 - (e) SD-229C - Curb Ramp for Concrete Pavement
 - (f) SD-229D - Curb Ramp for Asphalt Overlay
- E14.3 Applicable SDE Drawings (See Appendix C)
- (a) SDE-229A - Curb Ramp Layout for Intersections
 - (b) SDE-229AA - Detectable Warning Surface Tile in Curb Ramps for Intersections, Layout Option 1
 - (c) SDE-229E - Curb Ramp Depressed Curb
- E14.4 Acceptable Detectable Warning Surface Tile product is:
- (a) 610 x 1220mm (2'x 4') Cast in Place (Federal Yellow).
 - (b) 300 x 300mm (1'x1') Cast in Place (Federal Yellow).

Manufacturer – ADA Solutions Inc.
Supplier -
Brock White Canada
879 Keewatin Street
Winnipeg, Manitoba

Attention: Bernie Giesbrecht
Ph: 204-479-8089

or

Manufacturer - Armor Tile Tactile Systems
Supplier –
Alsip's Building Products
1 Cole Avenue
Winnipeg, Manitoba

Attention: Jason Alsip
Ph: 204-667-3330

- E14.5 Detectable warning surface tiles shall be Federal Yellow (USA); or Safety Yellow (Canada).
- E14.6 Detectable warning surface tiles shall be cast in place type with ribs. (Anchored type is not allowed).
- E14.7 Truncated domes on detectable warning surface tiles shall be in accordance with ADA Accessibility Guidelines (ADAAG).
- Construction Methods
- E14.8 Selection of Layout Options
- E14.9 Select the appropriate design layout for detectable warning surface tiles according to the following prioritized order:
- E14.10 Layout Option One – Install detectable warning surface tiles in accordance with SDE-229A and SDE-229AA.
- E14.11 If two 610mm x 1220mm tiles would physically overlap each other, or would be within 150mm of each other, or if one tile would lie within the circulation path towards the other tile, then install a suitable number of 300 mm x 300 mm detectable warning surface tiles, keeping the ramp and pedestrian road crossing as perpendicular to the road as is possible.
- E14.12 Construct curb ramps, sidewalk ramps and multi-use paths in accordance with the referenced Standard Construction Specifications, Standard Details, and SDE drawings.
- E14.13 Detectable warning surface tile shall not be placed at private approaches or alleys.
- E14.14 All curb ramps opposite each other shall have the same width.
- E14.15 Construct the lip of the depressed curb in accordance with SDE – 229E.
- E14.16 Construct ramp slopes in accordance with SD-229C and SD-229D. Use a ramp slope with preference for a slope as close to 5% maximum as possible.
- E14.17 Install the detectable warning surface tile in accordance with the installation instructions in this section.
- E14.18 Trim the corner of the tile at curb radii in accordance with SDE-229AA.

- E14.19 Install the detectable warning surface tiles as shown on the referenced drawings or as directed by the Contract Administrator.
- E14.20 Orient the detectable warning surface tiles perpendicular to the crossing direction.
- E14.21 Locate gratings, access covers and other appurtenances outside of the sidewalk ramps, depressed curbs, rest areas, and gutters in front of the depressed curbs, as directed by the Contract Administrator.

Installation Instructions

- E14.22 Installation Instructions for Cast In Place Inline Dome Detectable/Tactile Warning Surface Tile
 - (a) During Cast In Place Detectable/Tactile Warning Surface Tile installation procedures, ensure adequate safety guidelines are in place and that they are in accordance with the applicable industry and government standards.
 - (b) The specifications of the structural embedment flange system and related materials shall be in strict accordance with the contract documents and the guidelines set by their respective manufacturers. Do not set Cast In Place tiles in asphaltic concrete.
 - (c) The physical characteristics of the concrete shall be consistent with the contract specifications. An overly wet mix will cause the tile to float. Under these conditions, suitable weights such as 2 concrete blocks or sandbags (12 kg) shall be placed on each tile.
 - (d) Prior to placement of the Cast In Place Detectable/Tactile Warning Surface Tile system, the contract drawings shall be reviewed.
 - (e) Pour and finish the concrete using typical mason's tools, however, 12 kg weights, and a large non-marring rubber mallet are specific to the installation of the Cast In Place Detectable/Tactile Warning Surface Tile system. A vibrating mechanism can be employed, if desired. The vibrating unit should be fixed to a soft base such as wood, at least 300mm square.
 - (f) The factory-installed plastic sheeting must remain in place during the entire installation process to prevent the splashing of concrete onto the finished surface of the tile. Remove the plastic sheeting after the concrete has set.
 - (g) When preparing to set the tile, it is important that NO concrete be removed in the area to accept the tile. It is imperative that the installation technique eliminates any air voids under the tile. Holes in the tile perimeter allow air to escape during the installation process. Concrete will flow through the large holes in each embedment flange on the underside of the tile. This will lock the tile solidly into the cured concrete.
 - (h) Drill additional 6mm vent holes in the ribs under the tile as required to help seat the tile in the concrete.
 - (i) The concrete shall be poured and finished true and smooth to the required dimensions and slope prior to the tile placement. The tile shall be placed in accordance with the contract drawings.
 - (j) The Cast In Place Detectable/Tactile Warning Surface Tiles shall be tamped (or vibrated) into the fresh concrete to ensure that the surface of the truncated domes are flush to the adjacent concrete surface. Embedment of the tile so the top of the truncated domes are flush with the adjacent concrete will reduce the possibility of damage due to snow clearing operations. The embedment process should not be accomplished by stepping on the tile as this may cause uneven setting which can result in air voids under the tile surface.
 - (k) While concrete is workable, a 3/8" radius edging tool shall be used to create a finished edge of concrete, a steel trowel shall then be used to finish the concrete around the tile's perimeter.
 - (l) During and after the tile installation and the concrete curing stage, it is imperative that there is no walking, leaning or external force placed on the tile that may rock the tile causing a void between the underside of tile and concrete.

- (m) Following tile placement, review installation tolerances to contract drawings and adjust tile before the concrete sets. Two suitable weights of 12kg each shall be placed on each tile as necessary to ensure solid contact of the underside of tile to concrete.
- (n) If required, individual tiles can be bolted together using ¼ inch or equivalent hardware. This can help to ensure that adjacent tiles are flush to each other during the installation process. Tape or caulking can be placed on the underside of the bolted butt joint to ensure that concrete does not rise up between the tiles during installation. Any protective plastic wrap which was peeled back to facilitate bolting or cutting, should be replaced and taped to ensure that the tile surface remains free of concrete during the installation process.
- (o) Following the concrete curing stage, protective plastic wrap is to be removed from the tile surface by cutting the plastic with a sharp knife, tight to the concrete/tile interface. If concrete bled under the plastic, a soft brass wire brush will clean the residue without damage to the tile surface.
- (p) Tiles can be cut using a continuous rim diamond blade in a circular saw or mini-grinder. Use of a straightedge to guide the cut is advisable where appropriate.
- (q) Bolt 300mm x 300mm tiles together prior to placing in plastic concrete. This ensures that the surface of the tiles are flush with each other.

Measurement and Payment

- E14.23 Detectable Warning Surface Tiles shall be measured on a unit basis and paid for at the Contract Unit Price per unit for the "Items of Work" listed here below. The number of units to be paid for shall be the total number of detectable warning surface tiles supplied and installed in accordance with this specification, accepted and measured by the Contract Administrator.

Detectable Warning Surface Tiles:

- i) 300mm x 300mm tiles
 - ii) 610mm x 1220mm tiles
- E14.24 The area under the detectable warning surface tile is part of the concrete sidewalk ramp and will be paid in accordance with CW 3235 or CW 3325.
- E14.25 The concrete sidewalk ramp and the concrete ramp for multi-use paths will be paid as 100mm sidewalk in accordance with CW 3235 or CW 3325.
- Curb ramp will be paid in accordance with CW 3240 or CW 3310.

APPENDIX A – SECURITY CLEARANCE

1. SECURITY CLEARANCE

1.1 Each individual proposed to perform the following portions of the Work:

- (a) any Work on private property;
- (b) communicating with businesses or offices in person or by telephone;

1.2.1 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) Core of Commissionaires, forms to be completed can be found on the website at: <http://www.commissionaires.mb.ca/> .

1.2 Prior to the commencement of any Work specified in 1.1, 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.

1.3 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 1.1.

1.4 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.

1.5 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 1.1.

APPENDIX B – TRAFFIC MANAGEMENT DRAWINGS

SK-1.0 – Traffic Management Plan – Broadway

SK-2.0 - Traffic Management Plan – Broadway

SK-3.0 - Traffic Management Plan – Donald Street

SK-4.0 - Traffic Management Plan – Kennedy Street

APPENDIX C – DETECTABLE WARNING SURFACE TILE DETAIL DRAWINGS

SDE-229A - Curb Ramp Layout for Intersections

SDE-229AA - Detectable Warning Surface Tile in Curb Ramps for Intersections,
Layout Option 1

SDE-229E - Curb Ramp Depressed Curb