



THE CITY OF WINNIPEG

BID OPPORTUNITY

BID OPPORTUNITY NO. 478-2011

**CITY OF WINNIPEG, 2011 RESIDENTIAL STREET RENEWAL PROGRAM:
HOSMER BOULEVARD, IMPERIAL AVENUE AND VARIOUS OTHER LOCATIONS**

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PART B - BIDDING PROCEDURES

B1. CONTRACT TITLE

B1.1 CITY OF WINNIPEG, 2011 RESIDENTIAL STREET RENEWAL PROGRAM: HOSMER BOULEVARD, IMPERIAL AVENUE AND VARIOUS OTHER LOCATIONS

B2. SUBMISSION DEADLINE

B2.1 The Submission Deadline is 12:00 noon Winnipeg time, June 23, 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. ENQUIRIES

B3.1 All enquiries shall be directed to the Contract Administrator identified in D3.1.

B3.2 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.

B3.3 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.

B3.4 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.

B3.5 The Bidder shall not be entitled to rely on any response or interpretation received pursuant to B3 unless that response or interpretation is provided by the Contract Administrator in writing.

B4. ADDENDA

B4.1 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.

B4.2 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.

B4.2.1 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>

B4.2.2 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.

B4.3 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.

B5. SUBSTITUTES

- B5.1 The Work is based on the Plant, Materials and methods specified in the Bid Opportunity.
- B5.2 Substitutions shall not be allowed unless application has been made to and prior approval has been granted by the Contract Administrator in writing.
- B5.3 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.
- B5.4 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.
- B5.5 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.
- B5.6 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.
- B5.6.1 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.
- B5.7 If the Contract Administrator approves a substitute as an “approved equal”, any Bidder may use the approved equal in place of the specified item.
- B5.8 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 B14.
- B5.9 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.
- B5.10 Notwithstanding B5.2 to B5.9, in accordance with B6.6, deviations inconsistent with the Bid Opportunity document shall be evaluated in accordance with B14.1(a).

B6. BID COMPONENTS

B6.1 The Bid shall consist of the following components:

- (a) Form A: Bid;
- (b) Form B: Prices, hard copy;
- (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;

B6.2 Further to B6.1, the Bidder should include the written correspondence from the Contract Administrator approving a substitute in accordance with B5.

B6.3 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.

B6.4 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.

B6.4.1 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.

B6.4.2 A hard copy of Form B: Prices must be submitted with the Bid. If there is any discrepancy between the Adobe PDF version of Form B: Prices and the Microsoft Excel version of Form B: Prices, the PDF version shall take precedence.

B6.5 Bidders are advised not to include any information/literature except as requested in accordance with B6.1.

B6.6 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 B14.1(a).

B6.7 Bids submitted by facsimile transmission (fax) or internet electronic mail (e-mail) will not be accepted.

B6.8 Bids shall be submitted to:

The City of Winnipeg
Corporate Finance Department
Materials Management Division
185 King Street, Main Floor
Winnipeg MB R3B 1J1

B7. BID

B7.1 The Bidder shall complete Form A: Bid, making all required entries.

B7.2 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.

- B7.2.1 If a Bid is submitted jointly by two or more persons, each and all such persons shall identify themselves in accordance with B7.2.
- B7.3 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.
- B7.4 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, shall 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.
- B7.4.1 The name and official capacity of all individuals signing Form A: Bid should be printed below such signatures.
- B7.5 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.

B8. PRICES

- B8.1 The Bidder shall state a price in Canadian funds for each item of the Work identified on Form B: Prices.
- B8.1.1 For the convenience of Bidders, and pursuant to B6.4.2 and B14.4.3, an electronic spreadsheet Form B: Prices in Microsoft Excel (.xls) format is available along with the Adobe PDF documents for this Bid Opportunity on the Bid Opportunities page at the Materials Management Division website at <http://www.winnipeg.ca/matmgt>
- B8.2 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.
- B8.3 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.
- B8.4 Payments to Non-Resident Contractors are subject to Non-Resident Withholding Tax pursuant to the Income Tax Act (Canada).

B9. QUALIFICATION

- B9.1 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.
- B9.2 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>

B9.3 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).

B9.4 Further to B9.3(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>)

B9.5 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.

B9.6 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.

B10. BID SECURITY

B10.1 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.

B10.1.1 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.

B10.1.2 All signatures on bid securities shall be original.

B10.1.3 The Bidder shall sign the Bid Bond.

- B10.1.4 The Surety shall sign and affix its corporate seal on the Bid Bond and the Agreement to Bond.
- B10.2 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.
- B10.2.1 Where the bid security provided by the successful Bidder is in the form of a certified cheque or draft pursuant to (c), it will be deposited and retained by the City as the performance security and no further submission is required.
- B10.2.2 The City will not pay any interest on certified cheques or drafts furnished as bid security or subsequently retained as performance security.
- B10.3 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.

B11. OPENING OF BIDS AND RELEASE OF INFORMATION

- B11.1 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.
- B11.1.1 Bidders or their representatives may attend.
- B11.1.2 Bids determined by the Manager of Materials, or his designate, to not include the bid security specified in B10 will not be read out.
- B11.2 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>
- B11.3 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>
- B11.4 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.

B12. IRREVOCABLE BID

- B12.1 The Bid(s) submitted by the Bidder shall be irrevocable for the time period specified in Paragraph 11 of Form A: Bid.
- B12.2 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.

B13. WITHDRAWAL OF BIDS

- B13.1 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.

- B13.1.1 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.
- B13.1.2 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.
- B13.1.3 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 B13.1.3(b), declare the Bid withdrawn.
- B13.2 A Bidder who withdraws his Bid after the Submission Deadline but before his Bid has been released or has lapsed as provided for in B12.2 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.

B14. EVALUATION OF BIDS

- B14.1 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 therefrom (pass/fail);
 - (b) qualifications of the Bidder and the Subcontractors, if any, pursuant to B9 (pass/fail);
 - (c) Total Bid Price;
 - (d) economic analysis of any approved alternative pursuant to B5.
- B14.2 Further to (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.
- B14.3 Further to (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.
- B14.4 Further to (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.
- B14.4.1 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.
- B14.4.2 Further to B14.1(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.
- B14.4.3 The electronic Form B: Prices and the formulas imbedded in that spreadsheet are only provided for the convenience of Bidders. The City makes no representations or warranties as to the correctness of the imbedded formulas. It is the Bidder's responsibility to ensure the extensions of the unit prices and the sum of Total Bid Price performed as a function of the formulas within the electronic Form B: Prices are correct.

B15. AWARD OF CONTRACT

- B15.1 The City will give notice of the award of the Contract or will give notice that no award will be made.
- B15.2 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.
- B15.2.1 Without limiting the generality of B15.2, 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.
- B15.3 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 B14.
- B15.3.1 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

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:

- (a) Pavement Reconstruction
 - (i) Hosmer Boulevard from Mountbatten Avenue to Cuthbertson Avenue (150 mm thick reinforced concrete pavement)
 - (ii) Hugo Street North from Pembina Highway to Fleet Avenue (150 mm thick reinforced concrete pavement)
 - (iii) Acadia Bay from Killarney Avenue to Killarney Avenue (100 mm thick asphalt pavement with concrete curb and gutter)
- (b) Pavement Rehabilitation
 - (i) Imperial Avenue from St. Anne's Road to Rue Des Meurons
 - (ii) Thorndale Avenue from St. David Road to St. George Road
 - (iii) Cottonwood Road from Canberra Road to Monaco Bay West Leg
- (c) Thin Bituminous Overlay
 - (i) Hosmer Boulevard from Cuthbertson Avenue to Corydon Avenue

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

- (a) Pavement Reconstruction
 - (i) Remove existing pavement
 - (ii) Excavation
 - (iii) Installation of subdrains
 - (iv) Compaction of existing sub-grade
 - (v) Installation of catchbasins and sewer service pipe
 - (vi) Placement of separation/geotextile fabric
 - (vii) Placement of sub-base and base course materials
 - (viii) Construct curb and gutter utilizing slip-form paving equipment
 - (ix) Adjustment of existing manholes
 - (x) Placement asphalt pavement (average thickness –100 mm)
 - (xi) Construct 150 mm concrete pavement (reinforced)
 - (xii) Construct 180 mm barrier curb (separate) utilizing slip-form paving equipment
 - (xiii) Renewal of existing sidewalk
 - (xiv) Boulevard restoration
- (b) Pavement Rehabilitation
 - (i) Planing of existing asphalt pavement
 - (ii) Renewal of miscellaneous pavement slabs
 - (iii) Patching of existing pavement at various locations
 - (iv) Renewal of existing curb
 - (v) Renewal of existing sidewalk
 - (vi) Adjustment of catchbasins and manholes

- (vii) Installation of new catchbasins/catchpits
- (viii) Placement of asphalt overlay (average thickness – 80 mm) Imperial Avenue and Thorndale Avenue
- (ix) Placement of asphalt overlay (average thickness – 65 mm) Cottonwood Road
- (x) Boulevard restoration
- (xi) Adjustment of paving stones
- (c) Thin Bituminous Overlay
 - (i) Planing of existing asphalt pavement
 - (ii) Renewal of miscellaneous pavement slabs
 - (iii) Renewal of existing curb at various locations
 - (iv) Renewal of existing sidewalk at various locations
 - (v) Installation of catchpits
 - (vi) Placement of asphalt overlay (average thickness – 90 mm) Hosmer Boulevard
 - (vii) Boulevard restoration
 - (viii) Adjustment of paving stones

D3. CONTRACT ADMINISTRATOR

D3.1 The Contract Administrator is AECOM, represented by:

Mr. Kevin Rae, P. Eng.
Senior Transportation Engineer, Transportation
99 Commerce Drive, Winnipeg, MB R3P 0Y7

Telephone No. (204) 928-8430

Facsimile No. (204) 284-2040

D3.2 At the pre-construction meeting, Mr. Kevin Rae, P. Eng. 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.

D4.2 At least two (2) business days prior to the commencement of any Work on the site, the Contractor shall provide the Contract Administrator with a phone number where the supervisor identified in D4.1 or an alternate can be contacted twenty-four (24) hours a day to respond to an emergency.

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 shall 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 the 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 B10.1(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 and in no event later than the date specified in the 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 or prior to a pre-construction meeting, or 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 C4.1 for the return of the executed Contract.

D12. DETAILED WORK SCHEDULE

D12.1 The Contractor shall provide the Contract Administrator with a detailed work schedule at least two (2) Business Days prior to the commencement of any Work on the Site but in no event later than the date specified in the General Conditions for the return of the executed Contract.

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

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

D12.3 Further to (a), the Gantt chart shall show the time on a weekly basis, required to carry out the Work of each trade, or specification division. The time shall be on the horizontal axis, and the type of trade shall be on the vertical axis.

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 twenty-four (24) hour emergency response phone number specified in D4.2.
 - (iv) the Safe Work Plan specified in D8;
 - (v) evidence of the insurance specified in D9;
 - (vi) the performance security specified in D10;
 - (vii) the subcontractor list specified in D11;
 - (viii) the detailed work schedule specified in D12; and
- (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.

D13.3 The Contractor shall commence the Work on the Site within seven (7) Working Days of receipt of the Letter of Intent.

D13.4 The City intends to award this Contract by July 7, 2011.

D13.4.1 If the actual date of award is later than the intended date, the dates specified for Critical Stages, Substantial Performance, and Total Performance will be adjusted by the difference between the aforementioned intended and actual dates.

D14. WORKING DAYS

D14.1 Further to C1.1(gg);

D14.1.1 The Contract Administrator will determine daily if a Working Day has elapsed and will record his assessment. On a weekly basis the Contract Administrator will provide the Contractor with a record of the Working Days assessed for the preceding week. The Contractor shall sign each report signifying that he agrees with the Contract Administrator's determination of the Working Days assessed for the report period.

D14.1.2 Work done to restore the Site to a condition suitable for Work, shall not be considered "work" as defined in the definition of a Working Day.

D14.1.3 When the Work includes two or more major types of Work that can be performed under different atmospheric conditions, the Contract Administrator shall consider all major types of Work in determining whether the Contractor was able to work in assessing Working Days.

D15. RESTRICTED WORK HOURS

D15.1 Further to clause 3.10 of CW 1130, the Contractor shall require written permission forty-eight (48) hours in advance from the Contract Administrator for any work to be performed between 2000 hours and 0700 hours, or on Saturdays, Sundays, Statutory Holidays and or Civic Holidays.

D16. WORK BY OTHERS

D16.1 Work by others on or near the Site will include but not necessarily be limited to:

- (a) Manitoba Hydro Gas Division – lowering and/or rock wrapping of gas main and services, on an as-required basis;
- (b) Manitoba Hydro – installation of new light standards and street lighting cable on reconstructed streets;
- (c) City of Winnipeg, Water and Waste Department – 2011 Watermain Renewal on Hugo Street North; expected completion July 2011;
- (d) City of Winnipeg, Water and Waste Department – 2011 Sewer Renewals by CIPP Lining – Contract No. 14, Bid Opportunity 49-2011 on Thorndale Avenue. Works to be coordinated at the preconstruction meeting.

D17. SEQUENCE OF WORK

D17.1 Further to C6.1, the sequence of work shall comply with the following:

D17.1.1 Providing that the Work on each street is completed in a similar order to the order that the Work was commenced in, the Contractor will be permitted to have a maximum of three (3) streets under construction at any one time. Completion of a street means that all of the necessary concrete, asphalt including approaches and landscaping Work is completed to the satisfaction of the Contract Administrator.

D17.1.2 Where the Contractor utilizes two (2) or more crews that work independently on the same major component of the Work as identified in D2, the Contract Administrator may approve an increase to the maximum number of streets under construction at any time.

D17.1.3 Placing the topsoil and finished grading of all boulevard and median areas shall be completed prior to commencing construction of asphaltic concrete overlays, including scratch courses.

D17.1.4 The Work on Hosmer Boulevard shall be divided into three stages. The staging breakdown will be as follows:

- (a) Stage 1: Hosmer Boulevard from Cuthbertson Avenue to House No. 415 Hosmer Boulevard. The Contractor shall complete all works including topsoil and sod, prior to commencement of work on Stage 2.
- (b) Stage 2: Hosmer Boulevard from House No. 415 to Mountbatten Avenue. Work shall not commence until September 1, 2011.
- (c) Stage 3: The thin bituminous overlay on Hosmer Boulevard from Cuthbertson Avenue to Corydon Avenue shall commence after completion of Stages 1 and 2.

D17.1.5 The Work on Acadia Bay shall be divided into two stages. The staging breakdown will be as follows:

- (a) Stage 1: The Contractor shall complete the Work from House No. 2 Acadia Bay to House No. 63 Acadia Bay. The Contractor shall complete all works including topsoil and sod to the satisfaction of the Contract Administrator prior to commencement of work on Stage 2.
- (b) Stage 2: The Contractor shall complete the work from House No. 63 Acadia Bay to House No. 119 Acadia Bay after Stage 1 construction has been completed.

D17.1.6 The work on Cottonwood Road from Canberra Road to Monaco Bay west leg shall be divided into two stages and each stage shall be completed one lane at a time.

- (a) Stage 1: The Contractor shall complete the work from Canberra Road to Speers Road, one lane at a time. The Contractor shall complete all Works including topsoil and sod to the satisfaction of the Contract Administrator prior to commencement of work on Stage 2.

- (b) Stage 2: The Contractor shall complete the work from Speers Road to Monaco Bay west leg, one lane at a time after Stage 1 construction has been completed.

D18. CRITICAL STAGES

D18.1 The Contractor shall achieve critical stages of the Work in accordance with the following requirements:

- (a) Work on Cottonwood Road shall be completed by August 26, 2011.

D18.2 When the Contractor considers the Work associated with Cottonwood Road to be completed, the Contractor shall arrange, attend and assist in the inspection of the Work with the Contract Administrator for purposes of verifying Completion. 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 re-inspected.

D18.3 The date on which the Cottonwood Road Work has been accepted by the Contract Administrator as being completed to the requirements of the Contract is the date on which completion of Cottonwood Road has been achieved.

D19. SUBSTANTIAL PERFORMANCE

D19.1 The Contractor shall achieve Substantial Performance within Seventy (70) consecutive Working Days of the commencement of the Work as specified in D13.

D19.2 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 re-inspected.

D19.3 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.

D20. TOTAL PERFORMANCE

D20.1 The Contractor shall achieve Total Performance within Seventy-Five (75) consecutive Working Days of the commencement of the Work as specified in D13.

D20.2 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 re-inspected.

D20.3 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.

D21. LIQUIDATED DAMAGES

D21.1 If the Contractor fails to achieve Critical Stages, 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) Cottonwood Road critical stage – two thousand dollars (\$2,000.00);
(b) Substantial Performance – three thousand dollars (\$3,000.00);
(c) Total Performance – one thousand dollars (\$1,000.00).

- D21.2 The amounts specified for liquidated damages in D21.1 are based on a genuine pre-estimate of the City's losses in the event that the Contractor does not achieve critical stages, Substantial Performance or Total Performance by the days fixed herein for same.
- D21.3 The City may reduce any payment to the Contractor by the amount of any liquidated damages assessed.

D22. SCHEDULED MAINTENANCE

- D22.1 The Contractor shall perform the following scheduled maintenance in the manner and within the time periods required by the Specifications:
- (a) Reflective crack maintenance on Acadia Bay, Imperial Avenue, Thorndale Avenue, Hosmer Boulevard and Cottonwood Road during one or two year maintenance warranty as specified in CW3250-R7;
 - (b) Sod maintenance as specified in CW3510-R9.
- D22.2 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

D23. JOB MEETINGS

- D23.1 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.
- D23.2 The Contract Administrator reserves the right to cancel any job meeting or call additional job meetings whenever he deems it necessary.

D24. PRIME CONTRACTOR – THE WORKPLACE SAFETY AND HEALTH ACT (MANITOBA)

- D24.1 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

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.

WARRANTY

D26. WARRANTY

- D26.1 Notwithstanding C13.2, the warranty period shall begin on the date of Total Performance and shall expire one (1) years thereafter for pavement rehabilitation works and thin bituminous overlay works , and two (2) years thereafter for pavement reconstruction works, unless

extended pursuant to C13.2.1 or C13.2.2, in which case it shall expire when provided for thereunder.

D26.2 Notwithstanding C13.2 or D26.1, the Contract Administrator may permit the warranty period for a portion or portions of the Work to begin prior to the date of Total Performance if:

- (a) a portion of the Work cannot be completed because of unseasonable weather or other conditions reasonably beyond the control of the Contractor but that portion does not prevent the balance of the Work from being put to its intended use; or
- (b) Substantial Performance has been achieved.

D26.2.1 In such case the date specified by the Contract Administrator for the warranty period to begin shall be substituted for the date specified in C13.2 for the warranty period to begin.

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. 478-2011

CITY OF WINNIPEG, 2011 RESIDENTIAL STREET RENEWAL PROGRAM: HOSMER BOULEVARD,
IMPERIAL AVENUE AND VARIOUS OTHER LOCATIONS

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. 478-2011

CITY OF WINNIPEG, 2011 RESIDENTIAL STREET RENEWAL PROGRAM: HOSMER
BOULEVARD, IMPERIAL AVENUE AND VARIOUS OTHER LOCATIONS

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

_____ August 22, 2011 _____
(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>	<u>Drawing (Original) Sheet Size</u>
478-2011_Drawing_CT-00-R0	Cover Page and Location Plan	A1
478-2011_Drawing_CT-01-R0	Hosmer Boulevard – Mountbatten Avenue to Station 2+10 Plan/Profile	A1
478-2011_Drawing_CT-02-R0	Hosmer Boulevard – Station 2+10 to Station 3+10 Plan/Profile	A1
478-2011_Drawing_CT-03-R0	Hosmer Boulevard – Station 3+10 to Cuthbertson Avenue Plan/Profile	A1
478-2011_Drawing_CT-04-R0	Hugo Street North – Pembina Highway to Station 2+30 Plan/Profile	A1
478-2011_Drawing_CT-05-R0	Hugo Street North – Station 2+30 to Fleet Avenue Plan/Profile	A1
478-2011_Drawing_CT-06-R0	Acadia Bay – Killarney Avenue to Station 2+30 Plan/Profile	A1
478-2011_Drawing_CT-07-R0	Acadia Bay – Station 2+30 to Station 3+30 Plan/Profile	A1
478-2011_Drawing_CT-08-R0	Acadia Bay – Station 3+30 to Station 4+30 Plan/Profile	A1
478-2011_Drawing_CT-09-R0	Acadia Bay – Station 4+30 to Killarney Avenue Plan/Profile	A1
478-2011_Drawing_RT-01	Hosmer Boulevard – Cuthbertson Avenue to Station 2+60 Plan/Profile (For Reference Only)	A3
478-2011_Drawing_RT-02	Hosmer Boulevard – Station 2+60 to Corydon Avenue Plan/Profile (For Reference Only)	A3
478-2011_Drawing_RT-03	Imperial Avenue – St. Anne's Road to Station 2+50 Plan/Profile (For Reference Only)	A3
478-2011_Drawing_RT-04	Imperial Avenue – Station 2+50 to Station 4+00 Plan/Profile (For Reference Only)	A3
478-2011_Drawing_RT-05	Imperial Avenue – Station 4+00 to Rue Des Meurons Plan/Profile (For Reference Only)	A3
478-2011_Drawing_RT-06	Thorndale Avenue – St. David Road to Station 1+95 Plan/Profile (For Reference Only)	A3

<u>Drawing No.</u>	<u>Drawing Name/Title</u>	<u>Drawing (Original) Sheet Size</u>
478-2011_Drawing_RT-07	Thorndale Avenue – Station 1+95 to St. George Road Plan/Profile (For Reference Only)	A3
478-2011_Drawing_RT-08	Cottonwood Road – Canberra Road to Station 3+50 Plan/Profile (For Reference Only)	A3
478-2011_Drawing_RT-09	Cottonwood Road – Station 3+50 to Monaco Bay West Plan/Profile (For Reference Only)	A3

E2. GEOTECHNICAL REPORT

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

E3. PROTECTION OF EXISTING TREES

E3.1 The Contractor shall take the following precautionary steps to prevent damage from construction activities to existing boulevard trees within the limits of the construction area:

- The Contractor shall not stockpile materials and soil or park vehicles and equipment on boulevards within 2 metres of trees.
- Trees identified to be at risk by the Contract Administrator are to be strapped with 25 x 100 x 2400mm wood planks, or suitably protected as approved by the Contract Administrator.
- Excavation shall be performed in a manner that minimizes damage to the existing root systems. Where possible, excavation shall be carried out such that the edge of the excavation shall be a minimum of 1.5 times the diameter (measured in inches), with the outcome read in feet, from the closest edge of the trunk. Where roots must be cut to facilitate excavation, they shall be pruned neatly at the face of excavation.
- Operation of equipment within the dripline of the trees shall be kept to the minimum required to perform the work required. Equipment shall not be parked, repaired, refuelled; construction materials shall not be stored, and earth materials shall not be stockpiled within the driplines of trees. The dripline of a tree shall be considered to be the ground surface directly beneath the tips of its outermost branches. The Contractor shall ensure that the operations do not cause flooding or sediment deposition on areas where trees are located.
- Work on-site shall be carried out in such a manner so as to minimize damage to existing tree branches. Where damage to branches does occur, they shall be neatly pruned.

E3.2 All damage to existing trees caused by the Contractor's activities shall be repaired to the requirements and satisfaction of the Contract Administrator and the City Forester or his designate.

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

E3.4 Except as required in clause E3.1(c) and E3.1(e), Elm trees shall not be pruned at any time between April 1 and July 31.

E4. TRAFFIC CONTROL

E4.1 Further to clauses 3.6 and 3.7 of CW 1130:

- Where directed, the Contractor shall construct and maintain temporary asphalt ramps to alleviate vertical pavement obstructions such as manholes and planing drop-offs to the satisfaction of the Contract Administrator. Payment shall be in accordance with CW3410.
- In accordance with the Manual of Temporary Traffic Control in Work Areas on City Streets, the Contractor ("Agency" in the manual) shall make arrangements with the Traffic Services

Branch of the City of Winnipeg to place all temporary regulatory signs. The Contractor shall bear all costs associated with the placement of temporary traffic control devices by the Traffic Services Branch of the City of Winnipeg in connection with the works undertaken by the Contractor.

E5. TRAFFIC MANAGEMENT

E5.1 Further to clause 3.7 of CW 1130:

E5.1.1 The Contractor shall schedule construction activities to meet the following:

- (a) Hosmer Boulevard Reconstruction shall be divided into two stages. Stage 1 construction shall be from Cuthbertson Avenue to House No. 415. The Contractor shall sign the street "Road Closed" for the Stage 1 Construction Limits and the south leg of Hosmer Boulevard shall remain open to vehicular traffic. Upon completion of Stage 1 construction, the Contractor shall open Stage 1 construction to vehicular traffic and commence Stage 2 after September 1, 2011 from House No. 415 to Mountbatten Avenue. The Contractor shall sign Stage 2 construction "Road Closed" and the Contractor shall complete all works within Stage 2 construction limits including the placement of topsoil and sod and reopen the street to vehicular traffic. All signage shall be in accordance with the Manual of Temporary Traffic Control.
- (b) Hosmer Boulevard Thin Bituminous Overlay will be closed to through traffic. Local access and/or bus traffic shall be maintained. The Contractor shall sign the street "Road Closed Local Access Only" in accordance with the Manual of Temporary Traffic Control.
- (c) Acadia Bay Reconstruction shall be divided into two stages. Stage 1 construction shall be from House No. 2 Acadia Bay to House No. 63 Acadia Bay. The Contractor shall sign the street "Road Closed" for the Stage 1 construction limits and the east leg of Acadia Bay shall remain open to vehicular traffic. Upon completion of Stage 1 construction, the Contractor shall open Stage 1 construction to vehicular traffic and commence Stage 2 construction from House No. 63 to House No. 119. The Contractor shall sign Stage 2 construction "Road Closed" and the Contractor shall complete all works including the placement of topsoil and sod and reopen the street to vehicular traffic. All signage shall be in accordance with the Manual of Temporary Traffic Control.
- (d) Imperial Avenue, Thorndale Avenue and Hugo Street North will be closed to all traffic. The Contractor shall sign the street "Road Closed" in accordance with the Manual of Temporary Traffic Control.
- (e) Cottonwood Road will be closed to all traffic one direction at a time during each stage of construction. Local access and/or bus traffic shall be maintained in the opposite direction. Cottonwood Road shall be divided into two stages. Stage 1 Construction shall be from Canberra Road to Speers Road. Stage 2 Construction shall be from Speers Road to Monaco Bay west leg. The Contractor shall sign the street "Road Closed" in the direction of the closure and "Road Closed Local Access Only", in the opposite direction during each stage in accordance with the Manual of Temporary Traffic Control.

E5.1.2 Should the Contractor be unable to maintain an existing access to a residence or business, he shall review the planned disruption with the business or residence and the Contract Administrator, and take reasonable measures to minimize the impact. The Contractor shall provide a minimum of 24 hours notification to the affected residence or business and the Contract Administrator, prior to disruption of access.

E5.1.3 Pedestrian and ambulance/emergency vehicle access must be maintained at all times.

E6. REFUSE AND RECYCLING COLLECTION

E6.1 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 an established time, in accordance with E6.2 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.

E6.2 Collection Schedule:

Hosmer Boulevard from Mountbatten Avenue to Cuthbertson Avenue.

Collection Day(s): Garbage day and recycling day 3

Collection Time: 7:00 a.m. to 6:00 p.m.

Common Collection Area: Garbage pick up in back lane, recycling pick up in front street. Access required for back lane west of Hosmer or supply traffic director for truck. Recycling is front street along Hosmer both sides and relocation will be required.

Hosmer Boulevard from Cuthbertson Avenue to Corydon Avenue.

Collection Day(s): Garbage day and recycling day 3

Collection Time: 7:00 a.m. to 6:00 p.m. for recycling, residential garbage when required

Common Collection Area: Garbage pick up in back lane, recycling pick up in front street. Access required for back lane west of Hosmer or supply traffic director for truck. Recycling is front street along Hosmer both sides and relocation will be required.

Hugo Street North from Pembina Highway to Fleet Avenue.

Collection Day(s): Garbage day and recycling day 1

Collection Time: 7:00 a.m. to 6:00 p.m.

Common Collection Area: Back lane pick up. Access to back lane required both sides or traffic director required.

Cottonwood Road from Canberra Road to Monaco Bay West Leg.

Collection Day(s): Garbage and recycling day 4

Collection Time: 7:00 a.m. to 6:00 p.m.

Common Collection Area: Front street pick up. Access to side streets required.

Acadia Bay from Killarney Avenue to Killarney Avenue.

Collection Day(s): Garbage and recycling day 4

Collection Time: 7:00 a.m. to 6:00 p.m.

Common Collection Area: Front street pick up. Access to Acadia Bay required or relocation of garbage and recycling.

Imperial Avenue from St. Anne's Road to Rue Des Meurons.

Collection Day(s): Garbage and recycling day 5

Collection Time: 7:00 a.m. to 6:00 p.m.

Common Collection Area: Back lane pick up.

Thorndale Avenue from St. David Road to St. George Road.

Collection Day(s): Garbage and recycling day 5

Collection Time: 7:00 a.m. to 6:00 p.m.

Common Collection Area: Back lane pick up.

E6.3 No measurement or payment will be made for the work associated with this specification.

E7. WATER OBTAINED FROM THE CITY

- E7.1 Further to clause 3.7 of CW 1120, the Contractor shall pay for all costs, including sewer charges, associated with obtaining water from the City in accordance with the Waterworks and Sewer By-laws.

E8. SURFACE RESTORATIONS

- E8.1 Further to clause 3.3 of CW 1130, when Total Performance is not achieved in the year the Contract is commenced, the Contractor shall temporarily repair any Work commenced and not completed to the satisfaction of the Contract Administrator. The Contractor shall maintain the temporary repairs in a safe condition as determined by the Contract Administrator until permanent repairs are completed. The Contractor shall bear all costs associated with temporary repairs and their maintenance.

E9. INFRASTRUCTURE SIGNS

- E9.1 The Contractor shall obtain infrastructure signs from the Traffic Services Sign Shop at 421 Osborne Street. The Contractor shall mount each sign securely to a rigid backing material approved by the Contract Administrator. The Contractor shall fasten each sign to a suitable support and erect and maintain one sign at each street as directed by the Contract Administrator. When the Contract Administrator considers the Work on the street complete, the Contractor shall remove and dispose of the signs and supports. No measurement for payment will be made for performing all operations herein described and all other items incidental to the work described.

E10. PATCHING OF EXISTING PAVEMENT

E10.1 Description

E10.1.1 General

- (a) This specification covers patching of existing concrete pavement in preparation for an asphalt overlay.

E10.1.2 Referenced Standard Construction Specifications

- (a) CW 3110 – Sub-Grade, Sub-Base and Base Course Construction.
(b) CW 3130 – Supply and Installation of Geotextile Fabrics.
(c) CW 3410 – Asphaltic Concrete Pavement Works.

E10.2 Materials

E10.2.1 Crushed Sub-Base Material

- (a) Crushed Sub-base material will have a maximum aggregate size of 50 millimetres and be supplied in accordance with Section 2.1 of CW 3110.

E10.2.2 Geotextile Fabric

- (a) Geotextile fabric will be supplied in accordance with Section 2 of CW 3130.

E10.2.3 Asphalt Material

- (a) Asphalt material will be Type 1A and will be supplied in accordance with Sections 5 and 6 of CW 3410.

E10.3 Construction Methods

E10.3.1 General

- (a) Remove existing concrete pavement to a minimum width of 1.5 metres at locations as shown on the Drawings or as directed by the Contract Administrator in accordance with Section 3.1 of Specification CW 3110.

- (b) Excavate to a depth of 350 millimetres below the top of the existing pavement.
- (c) Compact existing sub-grade to a minimum of 95% Standard Proctor Density.
- (d) Place separation/reinforcement geotextile fabric in accordance with Specification CW 3130.
- (e) Place and compact crushed sub-base material in accordance with CW 3110 to a 300 millimetres compacted depth. Compact to a minimum of 100% Standard Proctor Density.
- (f) Place and compact asphalt material to a 50 millimetres compacted depth matching the top of the existing concrete pavement. Compact to an average of 95% percent of the 75 Blow Marshall Density of the paving mixture with no individual test being less than 90% percent.
- (g) Each layer must be levelled and accepted by the Contract Administrator before the succeeding layer may be placed.
- (h) Additional excavation and placement of sub-base material beyond the identified pavement structure will be completed in accordance with CW 3110 as directed by the Contract Administrator.

E10.4 Measurement and Payment

E10.4.1 Pavement Patching

- (a) Pavement patching will be measured on an area basis and paid for at the Contract Unit Price per square metre for "Pavement Patching". The area to be paid for will be the total number of square metres of pavement patched in accordance with this specification, accepted and measured by the Contract Administrator.

E11. OPERATING CONSTRAINTS FOR WORK IN CLOSE PROXIMITY TO FEEDERMAINS AND FORCEMAINS

E11.1 Description

E11.1.1 This Section details operating constraints for all work to be carried out in close proximity to Feeder mains and Forcemains. Close proximity shall be deemed to be any construction activity within a 5 m offset from the centreline of the Pipeline.

E11.2 General Considerations for Work in Close Proximity to Feeder mains and Forcemains

E11.2.1 The Feeder mains are a critical component of the City of Winnipeg Regional Water Supply System and work in close proximity to the pipeline shall be undertaken with an abundance of caution. Feeder mains cannot be taken out of service for extended periods to facilitate construction and inadvertent damage caused to the pipe would likely have catastrophic consequences.

E11.2.2 Forcemains convey sewage under pressure from lift stations and are a critical part of the City of Winnipeg Sewage Collection System and work in close proximity to the pipeline shall be undertaken with an abundance of caution. Feeder mains cannot typically be taken out of service to facilitate construction and inadvertent damage caused to the pipe would likely have catastrophic consequences.

E11.2.3 Work around the pipelines shall be planned and implemented to minimize the time period that work is carried out in close proximity to the pipe and to ensure that the pipeline is not subjected to excessive construction related loads, including excessive vibrations and/or concentrated or asymmetrical lateral loads during backfill placement.

E11.2.4 The Speers Road Feeder main and a 400 mm forcemain are located in the vicinity of Cottonwood Road. The Speers Road Feeder main was constructed of Prestressed Concrete Cylinder Pipe (PCCP) in 1962. The 400 mm forcemain was constructed from Asbestos Cement (AC) pipe in 1955.

- E11.2.5 The 400 mm forcemain affected by the proposed construction has relatively shallow covers, ranging from 1.4 metres to 2.13 metres in boulevard sections. The forcemain is typically not used during the summer months and may be able to be taken out of service for construction if required. Coordination with City of Winnipeg Water and Waste Department is required to take the forcemain out of service.
- E11.2.6 Generally, for pavement rehabilitations, there will be little risk posed to the pipelines, but certain aspects of construction including joint and slab repairs, repairs and installation of drainage appurtenances, and extended vibration of asphaltic concrete directly over pipelines can impose additional stresses on these pipelines, and specifically, loosening on pipe jointing materials including aged rubber gasketed joints.
- E11.3 Submittals
- E11.3.1 Where slab and joint repairs or installation of drainage appurtenances are in close proximity to pipelines, submit a Construction Method Statement with proposed construction plan including haul routes, excavation equipment locations, loading positioning and base construction sequencing, to the Contract Administrator for review seven (7) days prior to construction. Do not commence construction until the Construction Method Statement has been reviewed and accepted by the Contract Administrator.
- E11.4 Protection of Pipelines During Construction
- E11.4.1 Contractors carrying out repair work or working in close proximity to pipelines shall meet the following conditions and technical requirements:
- (a) Pre-Work, Planning and General Execution
 - (i) No work shall commence at the site until the Equipment Specifications and Construction Method Statement have been submitted and accepted, and the pipeline location has been clearly delineated in the field. Work over the pipeline shall only be carried out with equipment that has been reviewed and quantified in terms of its loading implications on the pipe. All proposed construction equipment must be submitted to Contract Administrator for review prior to construction. Work in areas in close proximity to the Pipeline shall only be carried out with equipment that has been reviewed and quantified in terms of its loading implications by the Contract Administrator.
 - (ii) Contact the City of Winnipeg WWD Department, Construction Services Coordinator (Andy Vincent) prior to construction involving removal and placement of pavement slab and joint repairs or installation of drainage appurtenances.
 - (iii) Notify WWD well in advance of construction to coordinate required service interruptions
 - (iv) Crossings of the pipelines are prohibited in the time period from removal of existing pavement until the completion of granular base construction. At all times prior to completion of final paving; reduce equipment speeds to levels that minimize the effects of impact loading to the pipe
 - (v) For construction work activities either longitudinally or transverse to the alignment of the Pipeline, work only with equipment and in the manner stipulated in the accepted Construction Method Statement and the supplemental requirements noted herein.
 - (vi) Construction operations should be staged in such a manner as to limit multiple construction loads at one time, (e.g. offset crossings sufficiently from each other, rollers should remain a sufficient distance behind spreaders to limit loads. A reasonable offset distance is 3m between loads).
 - (vii) Heavy equipment, in general, should not be permitted to travel on boulevard sections over sewage forcemains, due to limited ground cover.
 - (viii) The contractor and all site supervisory personnel and equipment operators have to be formally briefed to ensure that they are fully cognizant of the associated restrictions, constraints, and risks associated with working adjacent

to and over large pressure pipelines. New personnel introduced after commencement of the project need to be formally orientated as to the significance and constraints associated with working over large pressure pipelines.

(b) Demolition and Excavation

- (i) Use of pneumatic concrete breakers within 3 metres of Pipelines is prohibited. Pavement shall be full depth sawcut and carefully removed. Use of hand held jackhammers for pavement removal will be allowed.
- (ii) Where there is less than 1.6 metres of earth cover over the Pipeline and further excavation is required either adjacent to or over the pipeline, utilize only smooth edged excavation buckets, soft excavation or hand excavation techniques. Where there is less than 1 metre of cover over the Pipeline, carefully expose the Pipeline by hand excavation to delineate the location and depth of the main, and provide full time supervision of the excavation.
- (iii) Where there is less than 2.5 m of earth cover over the pipeline, offset backhoe or excavation equipment from Pipeline, a minimum of 3 m from Pipeline centerline, to carry out excavation.
- (iv) Equipment should not be allowed to operate while positioned directly over the Pipeline.

(c) Subgrade Construction

- (i) Subgrade compaction shall be prohibited within 2 metres of the pipeline. Subgrade compaction within 3 metres of the Pipeline shall be limited to non vibratory methods only.
- (ii) Subgrade, sub-base and base course construction shall be kept in a rut free condition at all times. Construction equipment is prohibited from crossing pipelines if the grade is insufficient to support the equipment without rutting.
- (iii) Subgrade conditions should be inspected by personnel with competent geotechnical experience (e.g. ability to adequately visually classify soils and competency of subgrade, sub-base, and base course materials). In the event of encountering unsuitable subgrade materials above the pipeline, proposed design revisions shall be submitted to this office for review to obtain approval from the Water and Waste Department relative to any change in conditions.
- (iv) Construction operations shall be staged to minimize the time period between excavation to subgrade and placement of granular sub-base materials. Should bare subgrade be left overnight, measures shall be implemented to protect the subgrade against inadvertent travel over it and to minimize the impact of wet weather.

(d) Sub-base and Base Course Construction

- (i) Granular material, construction material, soil or other material shall not be stockpiled on the pipelines or within 5 metres of the pipe centerline.
- (ii) Sub-base or base course materials shall not be dumped directly on pipelines but shall be stockpiled outside limits noted in these recommendations and shall be carefully bladed in-place.
- (iii) Sub-base compaction within 3 metres of the centreline of the Pipeline shall be either carried out by static methods (without vibration) or with smaller approved equipment such as hand held plate packers or smaller roller equipment.

(e) Asphaltic Concrete Overlays

- (i) When installing asphaltic concrete overlays over critical locations non-vibratory compaction only should be used within 3 metres of the centre of the pipeline.

(f) Sidewalk Construction

- (i) Notwithstanding restrictions for operating above pipelines as outlined in this Section, during construction of sidewalks in close proximity to the Forcemain all excavation equipment, tandems, and concrete delivery trucks shall not operate

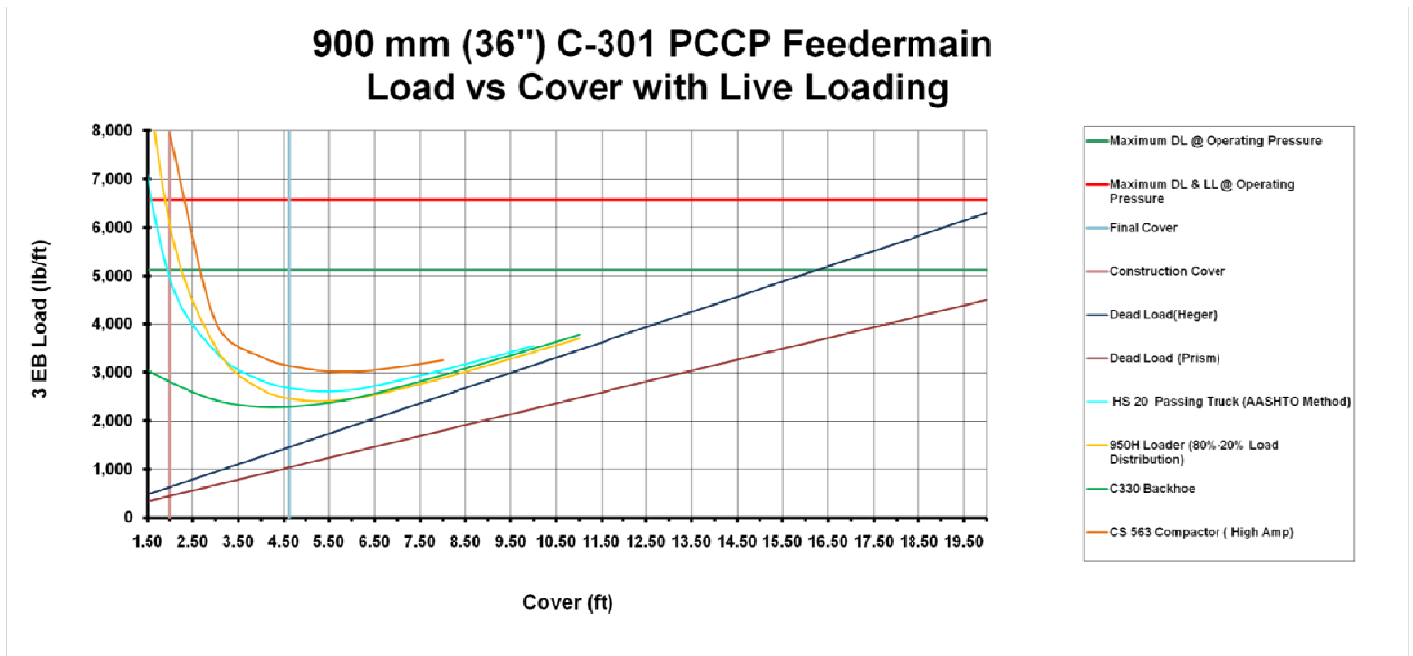
from or be positioned on the boulevard. All forementioned equipment must operate from the roadway at all times.

- (ii) Sections of sidewalk considered to be in close proximity to the Forcemain are located along the north boulevard of Cottonwood Road.

E11.5 Measurement and Payment

- E11.5.1 All costs associated with the work in close proximity to the feedermain and forcemain shall be incidental to the applicable type of pavement construction and no additional payment shall be made.
- E11.5.2 Ground locates and depth of the pipelines, if required, shall be incidental to the project and no additional payment shall be made.

Figure 1: AWWA C301 - 600 mm Class 14 Loading Curves



DRAWINGS