



**THE CITY OF WINNIPEG**

# **BID OPPORTUNITY**

**BID OPPORTUNITY NO. 520-2014**

**LAGIMODIERE BOULEVARD NORTHBOUND – COTTONWOOD ROAD TO  
DUGALD ROAD AND ARCHIBALD STREET – PLINGUET STREET TO #80  
ARCHIBALD STREET MILL AND FILL/ LAGIMODIERE BOULEVARD  
NORTHBOUND AND SOUTHBOUND SHOULDER PAVING**

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## **PART B - BIDDING PROCEDURES**

### **B1. CONTRACT TITLE**

- B1.1 Lagimodiere Boulevard Northbound – Cottonwood Road to Dugald Road and Archibald Street – Plinguet Street to #80 Archibald Street Mill and Fill/ Lagimodiere Boulevard Northbound and Southbound Shoulder Paving

### **B2. SUBMISSION DEADLINE**

- B2.1 The Submission Deadline is 12:00 noon Winnipeg time, November 14, 2014.
- B2.2 Bids determined by the Manager of Materials to have been received later than the Submission Deadline will not be accepted and will be returned upon request.
- B2.3 The Contract Administrator or the Manager of Materials may extend the Submission Deadline by issuing an addendum at any time prior to the time and date specified in B2.1.

### **B3. 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. CONFIDENTIALITY**

- B4.1 Information provided to a Bidder by the City or acquired by a Bidder by way of further enquiries or through investigation is confidential. Such information shall not be used or disclosed in any way without the prior written authorization of the Contract Administrator. The use and disclosure of the confidential information shall not apply to information which:
- (a) was known to the Bidder before receipt hereof; or
  - (b) becomes publicly known other than through the Bidder; or
  - (c) is disclosed pursuant to the requirements of a governmental authority or judicial order.
- B4.2 The Bidder shall not make any statement of fact or opinion regarding any aspect of the Bid Opportunity to the media or any member of the public without the prior written authorization of the Contract Administrator.

### **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, to the Bidder who requested approval of the substitute.
- B6.6.1 The Contract Administrator will issue an addendum, disclosing the approved materials, equipment, methods and products to all potential Bidders. The Bidder requesting and obtaining the approval of a substitute shall be 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, 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, 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.
- 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.
- B7.4.2 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.
- 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, shall 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.
- B9.1.1 For the convenience of Bidders, and pursuant to B7.4.2 and B15.4.2, 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/>
- 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;
- (c) have all the necessary experience, capital, organization, and equipment to perform the Work in strict accordance with the terms and provisions of the Contract.

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

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

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

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

### **B10.4 Further to B10.3(c), the Bidder shall, within five (5) Business Days of a request by the Contract Administrator, provide proof satisfactory to the Contract Administrator that the Bidder/Subcontractor has a workplace safety and health program meeting the requirements of The Workplace Safety and Health Act (Manitoba), by providing:**

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

### **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 therefrom (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 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.

B15.4.2 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.

## **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](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) Asphalt Resurfacing and Related Works (Mill and Fill):
  - (i) Lagimodiere Boulevard Northbound from Cottonwood Road (not through intersection) to Dugald Road (through intersection);
  - (ii) Archibald Street from Plinguet Street (through intersection) to #80 Archibald Street;
  - (iii) Mission Street from Archibald to approximately 85 m east including improvements to Laverendrye Street from Archibald Street to approximately 10 m west;
  - (iv) Leveque Street from approximately 50 west Lagimodiere Boulevard to approximately 110 m west of Lagimodiere Boulevard;
  - (v) Northbound Left Turn Lane on Lagimodiere Boulevard at Paterson Street;
  - (vi) Southbound Right Turn Lane on Lagimodiere Boulevard at Paterson Street.
- (b) Asphalt Shoulder Paving:
  - (i) Lagimodiere Boulevard from Cottonwood Road to Dugald Road, Northbound and Southbound Shoulders.

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

- (a) Asphalt Resurfacing and Related Works:
  - (i) Planing of existing mainline asphalt overlay to various depths (average planning thickness 50 mm);
  - (ii) Minimal planing of medians and side street tie-ins (to be determined by Contract Administrator);
  - (iii) Repair of catchbasin leads;
  - (iv) Removal of existing pavement (Archibald Street and Plinguet Street Intersection, Archibald and Mission Street Intersection, Leveque Street, Lagimodiere Boulevard Turn Lanes at Paterson Street);
  - (v) Removal of median boulevard trees (Lagimodiere Boulevard, Lagimodiere Boulevard Turn Lanes at Paterson Street);
  - (vi) Excavation and compaction of sub-grade (Archibald Street and Plinguet Street Intersection, Archibald and Mission Street Intersection, Leveque Street, Lagimodiere Boulevard Turn Lanes at Paterson Street);
  - (vii) Relocation of existing catchbasin (Archibald Street and Plinguet Street Intersection, Archibald and Mission Street Intersection, Lagimodiere Boulevard Turn Lanes at Paterson Street);
  - (viii) Relocation of fire hydrant (Archibald Street and Mission Street Intersection);
  - (ix) Installation of geotextile fabric (Archibald Street and Plinguet Street Intersection, Archibald Street and Mission Street Intersection, Leveque Street, Lagimodiere Boulevard Turn Lanes at Paterson Street);
  - (x) Placement and compaction of sub-base and base course material (Archibald Street and Plinguet Street Intersection, Archibald Street and Mission Street Intersection, Leveque Street, Lagimodiere Boulevard Turn Lanes at Paterson Street);

- (xi) Construction of 200 mm Plain Dowelled Concrete (Archibald Street and Plinguet Street Intersection, Archibald Street and Mission Street Intersection, Lagimodiere Boulevard Turn Lanes at Paterson Street);
  - (xii) Construction of 150 mm Reinforced Concrete (Leveque Street);
  - (xiii) Construction of monolithic concrete median slab (Archibald Street and Plinguet Street Intersection, Archibald Street and Mission Street Intersection);
  - (xiv) Construction of reinforced monolithic curb and sidewalk (Archibald Street and Plinguet Street Intersection);
  - (xv) Construction of curb (Archibald Street and Plinguet Street Intersection, Archibald Street and Mission Street Intersection, Leveque Street, Lagimodiere Boulevard Turn Lanes at Paterson Street);
  - (xvi) Boulevard grading and sodding (Archibald Street and Mission Street Intersection, Leveque Street, Lagimodiere Boulevard Turn Lanes at Paterson Street);
  - (xvii) Minimal full depth concrete repairs of existing slabs and joints;
  - (xviii) Adjustment of existing drainage inlets, water valves, and manholes;
  - (xix) Minimal curb replacements where existing curb is missing or severely damaged;
  - (xx) Renewal of grade-affected curb ramps;
  - (xxi) Installation of Detectible Warning Tiles;
  - (xxii) Minimal sidewalk renewal and boulevard topsoil and seeding/sodding;
  - (xxiii) Placement of mainline asphalt overlay (average thickness 50 – 65 mm);
  - (xxiv) Minimal placement of tie-in asphalt overlay.
- (b) Asphalt Shoulder Paving:
- (i) Excavation and sub-grade compaction of shoulders in locations where the width of the shoulder is deficient (to be determined by the Contract Administrator);
  - (ii) Placement of geotextile fabric (to be determined by the Contract Administrator);
  - (iii) Placement and compaction of sub-base material;
  - (iv) Preparation of shoulders by grading and compacting existing granular material as well as placement and compaction of base course (to be determined by the Contract Administrator);
  - (v) Repair of existing asphalt shoulder (Maginot Street to Dawson Street);
  - (vi) Placement of asphalt material – 75 mm thick;
  - (vii) Trimming and compacting base course material against vertical edge of asphalt shoulder;
  - (viii) Boulevard grading, placement of topsoil and seed/sod.

### **D3. CONTRACT ADMINISTRATOR**

D3.1 The Contract Administrator is Dillon Consulting Limited, represented by:

Jeff Crang, P.Eng., PTOE  
Project Manager  
1558 Willson Place, Winnipeg Manitoba, R3T 0Y4

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

D3.2 At the pre-construction meeting, Jeff Crang, P.Eng., PTOE 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.
- 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. 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 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 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 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>

### **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 the 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 and in no event later than the date specified in the 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 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.

## **D13. EQUIPMENT LIST**

D13.1 The Contractor shall provide the Contract Administrator with a complete list of the equipment which the Contractor proposes to utilize (Form K: Equipment 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.

## **D14. DETAILED WORK SCHEDULE**

D14.1 The Contractor shall provide the Contract Administrator with a detailed work schedule (Form L: 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.

## **SCHEDULE OF WORK**

### **D15. COMMENCEMENT**

D15.1 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.

D15.2 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 twenty-four (24) hour emergency response phone number specified in D4.2.
  - (iv) the Safe Work Plan specified in D9;
  - (v) evidence of the insurance specified in D10;
  - (vi) the performance security specified in D11;

- (vii) the subcontractor list specified in D12;
  - (viii) the equipment list specified in D13; and
  - (ix) the detailed work schedule specified in D14.
- (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.

D15.3 The Contractor shall commence the Work on the Site within seven (7) Working Days of notice from the Contract Administrator that they have received notice through an official letter from the City of Winnipeg Public Works Department that 2015 surface works may commence due to favourable climatic conditions. The Contractor shall not commence Work prior to the issuance of this letter. The date of this letter varies depending on spring weather conditions.

D15.4 The City intends to award this Contract by December 15, 2014.

## **D16. WORKING DAYS**

D16.1 Further to C1.1(jj);

D16.1.1 The Contract Administrator will determine daily if a Working Day has elapsed and will record his/her 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/she agrees with the Contract Administrator's determination of the Working Days assessed for the report period.

D16.1.2 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.

D16.1.3 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.

## **D17. RESTRICTED WORK HOURS**

D17.1 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.

## **D18. PROJECT AREA ON CENTRAL GRAIN (MISSION STREET INTERSECTION)**

D18.1 Contractor to note that a portion of the project area is located on Central Grain property. This generally corresponds to a portion of the works associated with the reconstruction of the Mission Street Intersection.

D18.2 No work on the Mission Street Intersection shall commence until this property is acquired by the City of Winnipeg. It is expected to be acquired by May 1, 2015.

## **D19. WORK BY OTHERS**

D19.1 Work by others on or near the Site will include but not necessarily be limited to:

- (a) City of Winnipeg Water and Waste Department;
- (b) City of Winnipeg Traffic Signals – underground traffic loop replacement as necessary at Maginot Street, Marion Street and Dugald Road Intersection. Traffic signal relocation/installation at the Mission Street and Archibald Intersection;
- (c) MTS and Hydro:
  - (i) Miscellaneous adjustments of manholes and relocation of MTS and Hydro boxes/poles and other appurtenances may be required within this Contract;

- (ii) Gas: Gas service lines may require lowering or rock wrapping depending on their location, depth, and size of pipe. This Work must be coordinated prior to and immediately after excavation has taken place;
- (d) City of Winnipeg - Geomatics Branch:
  - (i) Survey Monuments: Miscellaneous works on survey monuments;
- (e) City of Winnipeg - Traffic Services Branch:
  - (i) Traffic Signage and Line Painting – Installation of major traffic control and detour signage as well as miscellaneous works relating to sign removal and replacement.

## **D20. SEQUENCE OF WORK**

D20.1 Further to C6.1, the sequence of work shall be as follows:

D20.1.1 Work on Archibald Street shall not commence until Work on Lagimodiere Boulevard is completed with exception of landscaping Works and Work pertaining to the Asphalt Shoulder Paving.

D20.1.2 The Sequence of Work on Lagimodiere shall be as follows:

- (a) On Lagimodiere Boulevard, construction activity is to be limited to one lane of the roadway at a time. No construction shall commence on the adjacent lane until the asphalt Works are completed on the first lane. No work on the northbound shoulder paving Works shall take place until all Work on the northbound Lagimodiere Boulevard median lane is complete;
- (b) Initial planing operations on Lagimodiere Boulevard are to be limited to one lane of the roadway. Planing of the adjacent lane of the roadway is not to commence until the Contract Administrator has approved the opening of the initial lane to traffic;
- (c) The general sequence of Work in each lane is as follows:
  - (i) Planing of existing mainline asphalt overlay to various depths;
  - (ii) Planing of immediate adjacent side streets, auxiliary lanes, or median tie-ins, as directed by Contract Administrator;
  - (iii) Repairs to catchbasin/catchbasin leads;
  - (iv) Removal of median boulevard trees;
  - (v) Minimal full depth concrete repairs of slabs and joints with early open concrete;
  - (vi) Adjustment of existing drainage inlets, water valves, and manholes;
  - (vii) Minimal curb replacement where existing curb is missing or severely damaged;
  - (viii) Asphalt patching over full depth joint repairs, and any major cracks;
  - (ix) Placement of manhole/catchbasin lifter rings, and water valve inserts;
  - (x) Placement of mainline asphalt overlay, including any immediately adjacent major medians or auxiliary lanes;
  - (xi) Placing of topsoil and seed beside replaced curb or sidewalk may be completed after the mainline asphalt has been placed. However, stockpiling topsoil on the asphalt will not be permitted;
  - (xii) Immediately following the completion of the Work, the Contractor shall clean up the Site and remove all plant, surplus material, waste and debris, other than that left by the City of other Contractors.

D20.1.3 The Sequence of Work on Archibald Street shall be as follows:

- (a) On Archibald Street, construction activity is to be limited to two lanes of roadway at a time (one in each direction). No construction shall commence on the adjacent lanes until the asphalt Works are completed on the initial two lanes;

- (b) Mill and fill Work on Archibald Street shall not commence until Work on Lagimodiere Boulevard is completed with exception to landscaping Works and Work pertaining to the Asphalt Shoulder Paving. However, catchbasin lead repairs and work at Mission Street and Plinguet Street Intersections can commence;
- (c) Work on Archibald Street and Plinguet Street Intersection and Archibald Street and Mission Street Intersection shall be carried out in such a manner as specified in D20.1.2 (c);
- (d) Initial planing operations on Archibald Boulevard are to be limited to two lanes of the roadway (one in each direction) at a time. Planing of the adjacent lanes of the roadway are not to commence until the Contract Administrator has approved the opening of the initial lanes to traffic;
- (e) The final lift of asphalt on Archibald Street shall not be placed until Works at the Archibald Street and Plinguet Street and Archibald Street and Mission Street intersections are completed.

## **D21. SUBSTANTIAL PERFORMANCE**

- D21.1 The Contractor shall achieve Substantial Performance within seventy (70) consecutive Working Days of the commencement of the Work as specified in D15.
- D21.2 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.
- D21.3 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.

## **D22. TOTAL PERFORMANCE**

- D22.1 The Contractor shall achieve Total Performance within seventy five (75) consecutive Working Days of the commencement of the Work as specified in D15.
- D22.2 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.
- D22.3 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.

## **D23. LIQUIDATED DAMAGES**

- D23.1 If the Contractor fails to achieve Substantial Performance or Total Performance in accordance with the Contract by the days fixed herein for same, the Contractor shall pay the City the following amounts per Working Day for each and every Working Day following the days fixed herein for same during which such failure continues:
  - (a) Substantial Performance – Three Thousand dollars (\$3000);
  - (b) Total Performance – One Thousand dollars (\$1000).
- D23.2 The amounts specified for liquidated damages in D23.1 are based on a genuine pre-estimate of the City's losses in the event that the Contractor does not achieve Substantial Performance or Total Performance by the days fixed herein for same.

D23.3 The City may reduce any payment to the Contractor by the amount of any liquidated damages assessed.

## **D24. ACCELERATED COMPLETION**

D24.1 Description

D24.1.1 This specification shall cover the accelerated completion of this contract.

D24.2 Acceleration of Work

D24.2.1 At no risk to the City, the Contractor at his own initiative, means, and expense, may undertake to complete the Works of this Contract to facilitate the safe reopening of the entire site to traffic and pedestrians in advance of Total Performance date as specified in D22.

D24.2.2 Reopening of the entire site shall occur when all work items listed in D20 are complete, including boulevard grading, topsoil, sod, and site clean-up.

D24.2.3 In recognition of the fact that an early completion of the Works would benefit the City, the City will compensate the Contractor for said early completion on a per diem unit price basis, as hereinafter set out, provided that the City will not be liable to pay for any period of acceleration in excess of ten (10) Working Days.

D24.2.4 It is noted that certain delays on road rehabilitation Work are normal, due to site conditions, necessary layout and dimensional changes. The Contract Administrator will attempt to resolve each situation as soon as possible. The Contractor is advised that no extension to the Total Performance timeframe listed in D22 will be given for events of this sort which cause construction delay and are resolved within 48 hours of the requirement of change becoming known to both the Contractor and the Contract Administrator.

D24.3 Method of Measurement

D24.3.1 Subject to clause D24.2.3 hereof, accelerated completion will be measured on a unit basis per diem. The number of days to be paid for will be the total number of Working Days the Work is complete and safely reopened to vehicular and pedestrian traffic in advance of the Total Performance date specified herein in D22, with all specified Works listed in D20 completed and acceptable to the Contract Administrator.

D24.4 Basis of Payment

D24.4.1 Subject to clause D24.2.3 hereof, accelerated completion will be paid for at the Unit Price per diem specified hereinafter for "Accelerated Completion" which price shall be payment in full for performing all operations undertaken and all other items incidental to the Work included in this Specification. Unit Price per diem = Three thousand dollars (\$3,000).

D24.4.2 Payment for this item is not identified on Form B: Prices, and shall not be included thereon. If accelerated completion does occur as specified herein, then payment will be made for this item as an addition to the contract.

## **D25. SCHEDULED MAINTENANCE**

D25.1 The Contractor shall perform the following scheduled maintenance in the manner and within the time periods required by the Specifications:

- (a) Reflective Crack Maintenance (in Fall 2015) as specified in CW 3250 – R7;
- (b) Seeding (maintenance period) as specified in CW 3520 – R7;
- (c) Sodding (maintenance period) as specified in CW 3510 – R9.

- D25.2 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**

### **D26. JOB MEETINGS**

- D26.1 Regular weekly job meetings will be held at 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.
- D26.2 The Contract Administrator reserves the right to cancel any job meeting or call additional job meetings whenever he/she deems it necessary.

### **D27. PRIME CONTRACTOR – THE WORKPLACE SAFETY AND HEALTH ACT (MANITOBA)**

- D27.1 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).

### **D28. THE WORKPLACE SAFETY AND HEALTH ACT (MANITOBA) – QUALIFICATIONS**

- D28.1 Further to B10.4, the Contractor/Subcontractor must, throughout the term of the Contract, have a Workplace Safety and Health Program meeting the requirements of The Workplace Safety and Health Act (Manitoba). At any time during the term of the Contract, the City may, at its sole discretion and acting reasonably, require updated proof of compliance, as set out in B10.4.

## **MEASUREMENT AND PAYMENT**

### **D29. PAYMENT**

- D29.1 Further to C12, the City may at its option pay the Contractor by direct deposit to the Contractor's banking institution.

## **WARRANTY**

### **D30. WARRANTY**

- D30.1 Notwithstanding C13.2, the warranty period shall begin on the date of Substantial Performance and shall expire one (1) years thereafter for regional street minor asphalt rehabilitation (mill and fill), and two (2) years thereafter for pavement reconstruction Works and asphalt shoulder paving Works, unless extended pursuant to C13.2.1 or C13.2.2, in which case it shall expire when provided for thereunder.

**FORM H1: PERFORMANCE BOND**  
(See D11)

KNOW ALL MEN BY THESE PRESENTS THAT

\_\_\_\_\_ ,  
(hereinafter called the "Principal"), and

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

\_\_\_\_\_ dollars (\$\_\_\_\_\_)

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

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

BID OPPORTUNITY NO. 520-2014

Lagimodiere Boulevard Northbound – Cottonwood Road to Dugald Road and Archibald Street – Plinguet Street to #80 Archibald Street Mill and Fill/ Lagimodiere Boulevard Northbound and Southbound Shoulder Paving  
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)



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

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

\_\_\_\_\_  
(Date)

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

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

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

\_\_\_\_\_  
(Name of bank or financial institution)

Per: \_\_\_\_\_  
(Authorized Signing Officer)

Per: \_\_\_\_\_  
(Authorized Signing Officer)



**FORM K: EQUIPMENT**  
(See D13)

Lagimodiere Boulevard Northbound – Cottonwood Road to Dugald Road and Archibald Street – Plinguet Street to #80 Archibald Street Mill and Fill/ Lagimodiere Boulevard Northbound and Southbound Shoulder Paving

<p><b>1. Category/type: Concrete Paving</b></p> <p>Make/Model/Year: _____ Serial No.: _____</p> <p>Registered owner: _____</p> <p>Make/Model/Year: _____ Serial No.: _____</p> <p>Registered owner: _____</p> <p>Make/Model/Year: _____ Serial No.: _____</p> <p>Registered owner: _____</p>
<p><b>2. Category/type: Asphalt Paving</b></p> <p>Make/Model/Year: _____ Serial No.: _____</p> <p>Registered owner: _____</p> <p>Make/Model/Year: _____ Serial No.: _____</p> <p>Registered owner: _____</p> <p>Make/Model/Year: _____ Serial No.: _____</p> <p>Registered owner: _____</p>
<p><b>3. Category/type: Excavation and Earthwork</b></p> <p>Make/Model/Year: _____ Serial No.: _____</p> <p>Registered owner: _____</p> <p>Make/Model/Year: _____ Serial No.: _____</p> <p>Registered owner: _____</p> <p>Make/Model/Year: _____ Serial No.: _____</p> <p>Registered owner: _____</p>

**FORM K: EQUIPMENT**  
(See D13)

Lagimodiere Boulevard Northbound – Cottonwood Road to Dugald Road and Archibald Street – Plinguet Street to #80 Archibald Street Mill and Fill/ Lagimodiere Boulevard Northbound and Southbound Shoulder Paving

**4. Category/type: Base Placement**

Make/Model/Year: \_\_\_\_\_ Serial No.: \_\_\_\_\_

Registered owner: \_\_\_\_\_

Make/Model/Year: \_\_\_\_\_ Serial No.: \_\_\_\_\_

Registered owner: \_\_\_\_\_

Make/Model/Year: \_\_\_\_\_ Serial No.: \_\_\_\_\_

Registered owner: \_\_\_\_\_

**5. Category/type: Planing**

Make/Model/Year: \_\_\_\_\_ Serial No.: \_\_\_\_\_

Registered owner: \_\_\_\_\_

Make/Model/Year: \_\_\_\_\_ Serial No.: \_\_\_\_\_

Registered owner: \_\_\_\_\_

Make/Model/Year: \_\_\_\_\_ Serial No.: \_\_\_\_\_

Registered owner: \_\_\_\_\_

**FORM L: DETAILED WORK SCHEDULE**  
 (See D14)

Lagimodiere Boulevard Northbound – Cottonwood Road to Dugald Road and Archibald Street – Plinguet Street to #80 Archibald Street Mill and Fill/ Lagimodiere Boulevard Northbound and Southbound Shoulder Paving

For each item of Work, indicate the cumulative percentage proposed to be completed by the end of each time period until 100% completion is achieved.						
Items of Work	Time Period in Working Days					
	15	30	45	60	70	75
<b>Lagimodiere Mill and Fill – Cottonwood to Dugald</b>						
Northbound Median Lane Works						
Northbound Gutter Lane Works						
Southbound Asphalt Shoulder Paving Works						
Northbound Asphalt Shoulder Paving Works						
Miscellaneous Tie-In Area Works						
Northbound Left Turn Lane at Paterson Street						
Southbound Right Turn Lane at Paterson Street						
Leveque Street						
<b>Leveque Reconstruction – 50 m West to 110 m West of Lagimodiere Boulevard</b>						
Leveque Reconstruction						
<b>Archibald Mill and Fill – Plinguet to #80 Archibald</b>						
Plinguet St Intersection Improvements						
Mission St Intersection Reconstruction						
Southbound Gutter Lane Works						
Northbound Gutter Lane Works						
Southbound Median Lane Works						
Northbound Median Lane Works						
Miscellaneous Tie-In Area Works						

## 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>
520-2014 Sht 01-R0	Bid Opportunity No. 520-2014 Lagimodiere Boulevard - Northbound Cottonwood Road to Dugald Road. Mill and Fill	11" x 17"
520-2014 Sht 02-R0	Bid Opportunity No. 520-2014 Lagimodiere Boulevard – Northbound Cottonwood Road to Dugald Road Mill and Fill	11" x 17"
520-2014 Sht 03-R0	Bid Opportunity No. 520-2014 Lagimodiere Boulevard – Northbound Cottonwood Road to Dugald Road Mill and Fill	11" x 17"
520-2014 Sht 04-R0	Bid Opportunity No. 520-2014 Lagimodiere Blvd – Northbound Cottonwood Road to Dugald Road Mill and Fill	11" x 17"
520-2014 Sht 05-R0	Bid Opportunity No. 520-2014 Archibald Street Plinguet Street to Mission Street Mill and Fill	11" x 17"
520-2014 Sht 06-R0	Bid Opportunity No. 520-2014 Archibald Street Plinguet Street to Mission Street Mill and Fill	11" x 17"
520-2014 Sht 07-R0	Bid Opportunity No. 520-2014 Archibald Street / Mission Street Intersection	11" x 17"
520-2014 Sht 08-R0	Bid Opportunity No. 520-2014 Archibald Street / Plinguet Intersection	11" x 17"
520-2014 Sht 09-R0	Bid Opportunity No. 520-2014 Archibald Street / Mission Street Cross Sections	11" x 17"
520-2014 Sht 10-R0	Bid Opportunity. No. 520-2014 Archibald Street / Mission Street Details	11" x 17"

520-2014 Sht 11-R0	Bid Opportunity. No. 520-2014 Lagimodiere Boulevard Southbound Turn Lane	11" x 17"
520-2014 Sht 12-R0	Bid Opportunity No. 520-2014 Lagimodiere Boulevard Northbound Turn Lane	11" x 17"
520-2014 Sht 13-R0	Bid Opportunity No. 520-2014 Leveque Street	11" x 17"
520-2014 Sht 14-R0	Bid Opportunity No. 520-2014 Lagimodiere Boulevard Sections	11" x 17"
520-2014 Sht 15-R0	Bid Opportunity No. 520-2014 Levque Street Sections	11" x 17"

## **E2. GEOTECHNICAL REPORT**

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

## **E3. OFFICE FACILITIES**

E3.1 The Contractor shall supply office facilities meeting the following requirements:

- (a) The field office shall be for the exclusive use of the Contract Administrator;
- (b) The building shall be conveniently located near the Site of the Work;
- (c) The building shall have a minimum floor area of 20 square metres, a height of 2.4 m with a window and a door entrance with a suitable lock;
- (d) The building shall be suitable for all weather use. It shall be equipped with an electric heater and air conditioner so that the room temperature can be maintained between either 16-18°C or 24-25°C;
- (e) The building shall be adequately lighted with fluorescent fixtures and have a minimum of three wall outlets;
- (f) The building shall be furnished with one (1) desk, one (1) meeting table, one (1) stool, one (1) legal sized filing cabinet, and a minimum eight (8) chairs;
- (g) Portable toilet shall be located near the field office building. The toilet shall have a locking door and be for the exclusive use of the Contract Administrator and other personnel from the City;
- (h) The field office building and the portable toilet shall be cleaned on a weekly basis immediately prior to each site meeting. The Contract Administrator may request additional cleaning when he/she deems it necessary.

E3.2 The Contractor shall be responsible for all installation and removal costs, all operating costs, and the general maintenance of the office facilities.

E3.3 The office facilities will be provided from the date of the commencement of the Work to the date of Substantial Performance.

E3.4 On a one time basis, where directed by the Contract Administrator, the Contractor shall relocate the office facilities to a location more convenient for the remaining Work.

#### **E4. PROTECTION OF EXISTING TREES**

- E4.1 The Contractor shall take the following precautionary steps to prevent damage from construction activities to existing boulevard trees within the limits of the construction area:
- (a) The Contractor shall not stockpile materials and soil or park vehicles and equipment on boulevards within 2 m of trees;
  - (b) Trees identified to be at risk by the Contract Administrator are to be strapped with 25 x 100 x 2400 mm wood planks, or suitably protected as approved by the Contract Administrator;
  - (c) Excavation shall be performed in a manner that minimizes damage to the existing root systems. Where possible, excavation shall be carried out such that the edge of the excavation shall be a minimum of 1.5 times the diameter (measured in inches), with the outcome read in feet, from the closest edge of the trunk. Where roots must be cut to facilitate excavation, they shall be pruned neatly at the face of excavation;
  - (d) Operation of equipment within the dripline of the trees shall be kept to the minimum required to perform the work required. Equipment shall not be parked, repaired, refuelled; construction materials shall not be stored, and earth materials shall not be stockpiled within the driplines of trees. The dripline of a tree shall be considered to be the ground surface directly beneath the tips of its outermost branches. The Contractor shall ensure that the operations do not cause flooding or sediment deposition on areas where trees are located;
  - (e) Work on-site shall be carried out in such a manner so as to minimize damage to existing tree branches. Where damage to branches does occur, they shall be neatly pruned.
- E4.2 All damage to existing trees caused by the Contractor's activities shall be repaired to the requirements and satisfaction of the Contract Administrator and the City Forester or his/her designate.
- E4.3 No separate measurement or payment will be made for the protection of trees.
- E4.4 Except as required in clause E4.1(c) and E4.1(e), Elm trees shall not be pruned at any time between April 1 and July 31.

#### **E5. TRAFFIC CONTROL**

- E5.1 Further to clauses 3.6 and 3.7 of CW 1130:
- (a) 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;
  - (b) 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.

#### **E6. TRAFFIC MANAGEMENT**

- E6.1 The Contractor is responsible for supplying and installing all signage in accordance with the Manual of Temporary Traffic Control in Work Areas on City Streets, 2003 Edition.
- E6.1.1 Further to the Manual of Temporary Traffic Control in Work Areas on City Streets, 2003 Edition, all retro reflective sheeting on temporary traffic signs, traffic barricades and traffic control devices must be Type III (High Intensity) retro reflective sheeting (ASTM D4956) and barricades must show vertical stripping.

- E6.1.2 Regulatory signage, such as “no left turn” signage will be provided by Traffic Services Branch.
- E6.2 Further to clause 3.7 of CW 1130, for Lagimodiere Boulevard Works:
- E6.2.1 Maintain a minimum of one through lane of traffic northbound at all times, except for short term, short length closures such as when construction traffic is entering/exiting the traffic lanes;
- E6.2.2 Where possible, the Contractor shall maintain two through lanes of traffic in the northbound and southbound direction. Depending on what tasks are being performed, the Contractor shall manage traffic around their crews with a moving or growing protected Work zone. In other words, the Contractor will not be permitted to close the entire gutter lane within the project limits if there is only minor Work taking place at one end of the project. This shall be done for items such as milling, concrete repairs, and asphaltting.
- E6.2.3 If all Work is completed in the northbound lanes of traffic and only asphalt shoulder paving Works are being performed, the Contractor will only be permitted to close the adjacent lane of traffic in the northbound direction between 0900 and 1530 unless written permission from the Contract Administrator has been received.
- E6.2.4 No lane closures of the southbound median lane of traffic will be permitted without the written permission from the Contract Administrator. Closures of the southbound gutter lane for construction of the asphalt shoulder paving will only be permitted between 0900 and 1530 unless written permission from the Contract Administrator has been received.
- E6.2.5 Where left turn lanes exist, an additional lane to accommodate the left turn storage lane shall be maintained at all times.
- E6.2.6 Median openings, intersections, and private approaches to remain open to traffic unless joint/slab repairs or planning/paving operation require temporary closure. Temporary closures to be staggered such that consecutive intersections are not closed at the same time.
- E6.2.7 North/South traffic at an intersection must be maintained during construction to allow for one lane of traffic in each direction to go straight through and another lane in each direction to turn left. When no work is being performed in the intersection and providing it is safe for vehicles, east and west lane closures in the intersection will not be permitted.
- E6.2.8 Should the Contractor be unable to maintain pedestrian or vehicular access to a residence or business including the entrance to Symington Yard (east leg of the Lagimodiere and Maginot Intersection), he/she 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.
- E6.2.9 Cross streets, private approaches, and median openings may be temporarily closed for short periods between the hours of 0900 and 1530 to allow for mainline grade control devices and asphalt compaction required during asphalt Works.
- E6.2.10 Flagpersons may be necessary to maintain the flow of traffic during certain Work operations.
- E6.2.11 Pedestrian and ambulance/emergency vehicle access must be maintained at all times.
- E6.2.12 Winnipeg Transit access to be maintained, including bus stops. Should the Contractor be unable to maintain bus stops or side street bus routes, it shall be reviewed with the Contract Administrator at least 48 hours to see if modifications can be made.
- E6.3 Further to clause 3.7 of CW 1130, for Archibald Street Works:
- E6.3.1 Maintain a minimum of one through lane of traffic northbound direction and one through lane of traffic in the southbound direction at all times, except for short term, short length closures such as when construction traffic is entering/exiting the traffic lanes;

- E6.3.2 Where possible, the Contractor shall maintain two through lanes of traffic one in the northbound and one in the southbound direction. Depending on what tasks are being performed, the Contractor shall manage traffic around their crews with a moving or growing protected Work zone. In other words, the Contractor will not be permitted to close the entire gutter lane within the project limits if there is only minor Work taking place at one end of the project. This shall be done for items such as milling, concrete repairs, and asphaltting.
- E6.3.3 East/West traffic at Plinguet Street and Archibald Street intersection must be maintained during construction to allow for one lane of traffic in each direction to go straight through and another lane in each direction to turn left (where applicable). When no work is being performed in the intersection and providing it is safe for vehicles, east and west lane closures in the intersection will not be permitted.
- E6.3.4 Mission Street can be closed for the duration of construction at this intersection.
- E6.3.5 Pedestrian access must be maintained at all times.
- E6.3.6 Ambulance/emergency vehicle access must be maintained at all times.
- E6.3.7 Winnipeg Transit access must be maintained, including bus stops. Should the Contractor be unable to maintain bus stops or side street bus routes, it shall be reviewed with the Contract Administrator at least 48 hours to see if modifications can be made.

## **E7. REFUSE AND RECYCLING COLLECTION**

- E7.1 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, 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.
- E7.2 No measurement or payment will be made for the work associated with this specification.

## **E8. PEDESTRIAN SAFETY**

- E8.1 During the project, a temporary snow fence shall be installed where necessary. The Contractor shall be responsible for maintaining the snow fence in a proper working condition. No measurement for payment shall be made for this work.

## **E9. WATER OBTAINED FROM THE CITY**

- E9.1 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.

## **E10. SURFACE RESTORATIONS**

- E10.1 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.

## **E11. INFRASTRUCTURE SIGNS**

- E11.1 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 two (2) signs on Lagimodiere Boulevard, two (2) signs on Archibald Street, one (1) sign on Mission Street and one (1) sign on Plinguet 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

## **E12. SALT TOLERANT GRASS SEEDING**

### DESCRIPTION

E12.1 Further to CW 3520 and CW3540, this specification shall cover sub-grade preparation and the supply and placement of Salt Tolerant Grass Seed.

### MATERIALS

E12.2 Salt Tolerant Grass Seed

E12.2.1 Salt Tolerant Grass Seed for regional and collector boulevards, medians and interchange areas shall be a mixture composed of:

- (a) Seventy percent (70%) Fults or Nuttals Alkaligrass (*Puccinellia* spp.), twenty percent (20%) Audubon or Aberdeen Creeping Red Fescue and ten percent (10%) Perennial Ryegrass.

### EQUIPMENT

E12.3 Scarification equipment shall be suitable for the area being scarified, shall be capable of scarifying the sub-grade to the specified depth and shall be accepted by the Contract Administrator. For confined areas a toothed bucket may be acceptable. For larger areas tilling equipment may be required.

### CONSTRUCTION METHODS

E12.4 Preparation of Existing Grade

E12.4.1 Prior to placing topsoil, in areas to be seeded greater in width than 600 mm, prepare the existing sub-grade by scarifying to a minimum depth of 75 mm and to a maximum depth of 100 mm to the satisfaction of the Contract Administrator.

E12.4.2 Scarification shall consist of breaking up and loosening the sub-grade. No scarification shall occur within the edge of a tree canopy (or drip line).

E12.5 Salt Tolerant Grass Seeding

E12.5.1 Salt Tolerant Grass Seed shall be sown at a rate of 2.2 kilograms per 100 square meters.

### MEASUREMENT AND PAYMENT

E12.6 Supply, placement and maintenance of Salt Tolerant Grass Seed will be paid for at the Contract Unit Price per square metre for "Salt Tolerant Grass Seeding", measured as specified herein, which price shall be payment in full for supplying all materials and for completing all operations herein described and all other items incidental to the work included in this Specification. Payment for Salt Tolerant Grass Seeding shall be in accordance with the following:

- (a) Sixty five (65%) percent of quantity following supply and placement.
- (b) Remaining thirty five (35%) percent of quantity following termination of the Maintenance Period.

## **E13. ASPHALT PATCHING OVER FULL DEPTH CONCRETE REPAIRS**

E13.1 Description

**E13.1.1 General**

- (a) This specification covers the construction of asphalt patches over full depth concrete joint repairs on streets to be resurfaced where the entire existing asphalt overlay is not removed;
- (b) Referenced Standard Construction Specifications:
  - (i) CW 3410 – Asphaltic Concrete Pavement Works:
  - (ii) CW 3250 – Joint and Crack Maintenance.

**E13.2 Materials and Equipment**

**E13.2.1 Asphalt Materials**

- (a) Asphalt material supplied shall be as per CW 3410 Clause 5, 6 and 7 for Type 1A asphalt.

**E13.2.2 Equipment**

- (a) Equipment as per CW 3410 Clause 8.

**E13.3 Construction Methods**

**E13.3.1 Full Depth Concrete Repairs**

- (a) Place asphaltic concrete over the newly constructed joint repair where there is a minimum of 35 mm of existing overlay remaining. Remove any loose or debonded asphalt at the joint perimeter and place new asphaltic concrete in these areas as well;
- (b) Dispose of all material in accordance with Section 3.4 of CW 1130;
- (c) Prior to placement of asphaltic concrete patching material, ensure surface is clean and dry;
- (d) Prepare the joint surface with a uniform application of Tack Coat applied in small quantities sufficient to wet the concrete surface;
- (e) Place and compact asphaltic concrete over the joint repair in accordance with CW 3410 Clause 9.3 and to the satisfaction of the Contract Administrator so that the finished elevation of the patch is flush with surrounding asphalt surface;
- (f) Compact the asphalt material to an average 95% of the 75 blow Marshall Density of the paving mixture with no individual test being less than 90%;
- (g) Ensure that no traffic is allowed to cross the patched area until the asphalt has cooled to atmospheric temperature.

**E13.4 Measurement and Payment**

**E13.4.1 Full-Depth Patching of Existing Joints**

- (a) Asphalt Patching of Full-Depth Concrete Repairs will be measured on a weight basis and paid for at the Contract Unit Price per tonne for "Asphalt Patching of Full-Depth Concrete Repairs". The weight to be paid for will be the total number of tonnes of asphalt placed and compacted in accordance with this specification and accepted by the Contract Administrator, as measured on a certified weigh scale.

**E14. REMOVAL OF TREES**

**DESCRIPTION**

**E14.1 General**

- E14.1.1** This specification covers the removal of existing trees necessary for the completion of the Works.

## MATERIALS AND EQUIPMENT

E14.2 Not Applicable.

## CONSTRUCTION METHODS

E14.3 General

- E14.3.1 Contractor shall remove designated trees as shown on the drawings and as directed by the Contract Administrator on an "as required" basis in accordance with the requirements hereinafter specified.
- E14.3.2 The Contractor shall not complete a tree removal unless they receive authorization from the Contract Administrator.
- E14.3.3 The Contractor shall remove trees in a manner satisfactory to the Contract Administrator or designate and agrees that the Work may be inspected by City personnel.
- E14.3.4 The Contractor shall cut down designated trees and grub out the stumps and rootballs.
- E14.3.5 The Contractor shall remove and/or dispose of all material resulting from the Work immediately by removing to a landfill site, or by chipping and removing material to an appropriate location.
- E14.3.6 The Contractor shall repair any damage resulting from the Work to adjacent trees and shall report all damage immediately to the Contract Administrator.

## MEASUREMENT AND PAYMENT

E14.4 Removal of Trees will be measured on a unit basis and paid for at the Contract Unit Price per tree and associated stump/roots for "Removal of Trees". The number to be paid for will be the total number of trees and associated stump/roots removed and disposed of in accordance with this specification and accepted by the Contract Administrator.

## **E15. PARTIAL DEPTH PATCHING OF EXISTING JOINTS**

### DESCRIPTION

E15.1 General

- E15.1.1 This specification covers the Partial Depth Patching of existing concrete pavement joints.
- E15.2 Referenced Standard Construction Specifications
  - (a) CW 3230 – Full-Depth Patching of Existing Slabs and Joints; and
  - (b) CW 3410 – Asphalt Concrete Pavement Works.

### MATERIALS

E15.3 Asphalt Materials

- E15.3.1 Asphalt material will be Type 1A supplied in accordance with Sections 5 and 6 of CW 3410.
- E15.4 Tack Coat
  - E15.4.1 Tack Coat will be undiluted SS-1 emulsified asphalt or approval equal.

### CONSTRUCTION METHODS

E15.5 Planing of Joints

- E15.5.1 Plane existing joints designated by the Contract Administrator to a minimum depth of 50 mm and a maximum of depth 90 mm to remove ravelled or deteriorated concrete. Width of joint to be planed will vary with depth.

- E15.5.2 Should the depth of joint deterioration exceed the maximum indicated, as determined by the Contract Administrator, the entire joint shall be renewed and paid for in accordance with CW 3230 as a full depth joint repair. Planing completed shall be paid for in accordance with Section 14.7 of this specification
- E15.5.3 Dispose of material in accordance with Section 3.4 of CW 1130.
- E15.6 Placement of Asphalt Material
- E15.6.1 Prior to placement of asphalt material, the planed joint shall be swept or blow clean of any loose material.
- E15.6.2 Apply Tack Coat uniformly on the entire surface of the planed joint. The application rate shall not exceed 0.23 litres per square metre. The planed joint shall be dry prior to applying the tack coat.
- E15.6.3 Place and compact asphalt material in accordance with Section 9.3 of CW 3410 to the satisfaction of the Contract Administrator. The finished elevation of the patch shall be flush with surrounding pavement surface.
- E15.6.4 Compact the asphalt material to an average 95% of the 75 blow Marshall Density of the paving mixture with no individual test being less than 90 %.
- E15.6.5 Ensure that no traffic is allowed to travel over the patched area until the asphalt has cooled to atmospheric temperature.

#### MEASUREMENT AND PAYMENT

- E15.7 Partial Depth Planing of Existing Joints
- E15.7.1 Partial Depth Planing of Existing Joints will be measured on an area basis and paid for at the Contract Unit Price per square metre for "Partial Depth Planing of Existing Joints". The area to be paid for will be the total number of square metres of joints planed in accordance with this specification, accepted and measured by the Contract Administrator.
- E15.8 Asphalt Patching of Partial Depth Joints
- E15.9 Asphalt Patching of Partial Depth Joints will be measured on an area basis and paid for at the Contract Unit Price per square metre for "Asphalt Patching of Partial Depth Joints". The area to be paid for will be the total number of square metres of joints patched in accordance with this specification, accepted, and measured by the Contract Administrator.