



**THE CITY OF WINNIPEG**

# **BID OPPORTUNITY**

**BID OPPORTUNITY NO. 434-2005**

**CONSTRUCTION OF 2.4 METRE LIMESTONE PATHWAY & ASSOCIATED WORKS  
AT STURGEON CREEK**

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**PART B**

**BIDDING PROCEDURES**

## **PART B - BIDDING PROCEDURES**

### **B1. PROJECT TITLE**

CONSTRUCTION OF 2.4 METRE LIMESTONE PATHWAY & ASSOCIATED WORKS AT STURGEON CREEK

### **B2. SUBMISSION DEADLINE**

- B2.1 The Submission Deadline is 12:00 noon Winnipeg time, Tuesday August 16, 2005.
- B2.2 Bid Submissions determined by the Manager of Materials to have been received later than the Submission Deadline will not be accepted and will be returned unopened.
- B2.3 The Contract Administrator or the Manager of Materials may extend the Submission Deadline by issuing an addendum at any time prior to the time and date specified in B2.1.

### **B3. SITE INVESTIGATION**

- B3.1 Further to GC:3.1, the Bidder may view the Site without making an appointment.

### **B4. ENQUIRIES**

- B4.1 All enquiries shall be directed to the Contract Administrator identified in D3.1.
- B4.2 If the Bidder finds errors, discrepancies or omissions in the Bid Opportunity, or is unsure of the meaning or intent of any provision therein, the Bidder shall notify the Contract Administrator of the error, discrepancy or omission, or request a clarification as to the meaning or intent of the provision at least five (5) Business Days prior to the Submission Deadline.
- B4.3 Responses to enquiries which, in the sole judgment of the Contract Administrator, require a correction to or a clarification of the Bid Opportunity will be provided by the Contract Administrator to all Bidders by issuing an addendum.
- B4.4 Responses to enquiries which, in the sole judgment of the Contract Administrator, do not require a correction to or a clarification of the Bid Opportunity will be provided by the Contract Administrator only to the Bidder who made the enquiry.
- B4.5 The Bidder shall not be entitled to rely on any response or interpretation received pursuant to B4 unless that response or interpretation is provided by the Contract Administrator in writing.

### **B5. ADDENDA**

- B5.1 The Contract Administrator may, at any time prior to the Submission Deadline, issue addenda correcting errors, discrepancies or omissions in the Bid Opportunity, or clarifying the meaning or intent of any provision therein.
- B5.2 The Contract Administrator will issue each addendum at least three (3) Business Days prior to the Submission Deadline, or provide at least three (3) Business Days by extending the Submission Deadline.
  - B5.2.1 Addenda will be available in Adobe Acrobat (pdf) format on the Bid Opportunities page at The City of Winnipeg, Corporate Finance, Materials Management Division internet site at <http://www.winnipeg.ca/matmgt>.

B5.2.2 The Bidder is responsible for ensuring that he has received all addenda and is advised to check the Materials Management Division internet site for addenda shortly before submitting his Bid.

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 at his sole discretion grant approval for the use of a substitute as an "approved equal" or as an "approved alternative", or may refuse to grant approval of the substitute.

B6.6 The Contract Administrator will provide a response in writing, at least three (3) Business Days prior to the Submission Deadline, only to the Bidder who requested approval of the substitute.

B6.6.1 The Bidder requesting and obtaining the approval of a substitute shall be entirely responsible for disseminating information regarding the approval to any person or persons he wishes to inform.

B6.7 If the Contract Administrator approves a substitute as an "approved equal", the 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", the Bidder shall base his Total Bid Price upon the specified item but may 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.

**B7. BID SUBMISSION**

B7.1 The Bid Submission consists of the following components:

- (a) Form A: Bid;
- (b) Form B: Prices;
- (c) 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 All components of the Bid Submission 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 in ink, to constitute a responsive Bid.

B7.3 The Bid Submission shall be submitted enclosed and sealed in an envelope clearly marked with the Bid Opportunity number and the Bidder's name and address.

B7.3.1 Samples or other components of the Bid Submission 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 Submission.

B7.4 Bid Submissions submitted by facsimile transmission (fax) or internet electronic mail (e-mail) will not be accepted.

B7.5 Bid Submissions shall be submitted to:

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

**B8. BID**

B8.1 The Bidder shall complete Form A: Bid, making all required entries.

B8.2 Paragraph 2 of Form A: Bid shall be completed in accordance with the following requirements:

- (a) if the Bidder is a sole proprietor carrying on business in his own name, his name shall be inserted;
- (b) if the Bidder is a partnership, the full name of the partnership shall be inserted;
- (c) if the Bidder is a corporation, the full name of the corporation shall be inserted;
- (d) if the Bidder is carrying on business under a name other than his own, the business name and the name of every partner or corporation who is the owner of such business name shall be inserted.

B8.2.1 If a Bid is submitted jointly by two or more persons, each and all such persons shall identify themselves in accordance with B8.2.

B8.3 In Paragraph 3 of Form A: Bid, the Bidder shall identify a contact person who is authorized to represent the Bidder for purposes of the Bid.

- B8.4 Paragraph 12 of Form A: Bid shall be signed in accordance with the following requirements:
- (a) if the Bidder is a sole proprietor carrying on business in his own name, it shall be signed by the Bidder;
  - (b) if the Bidder is a partnership, it shall be signed by the partner or partners who have authority to sign for the partnership;
  - (c) if the Bidder is a corporation, it shall be signed by its duly authorized officer or officers and the corporate seal, if the corporation has one, should be affixed;
  - (d) if the Bidder is carrying on business under a name other than his own, it shall be signed by the registered owner of the business name, or by the registered owner's authorized officials if the owner is a partnership or a corporation.
- B8.4.1 The name and official capacity of all individuals signing Form A: Bid shall be printed below such signatures.
- B8.4.2 All signatures shall be original and shall be witnessed except where a corporate seal has been affixed.
- 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 Submission and the Contract, when awarded, shall be both joint and several.

## **B9. PRICES**

- B9.1 The Bidder shall state a price in Canadian funds for each item of the Work identified on Form B: Prices.
- B9.2 The quantities listed on Form B: Prices are to be considered approximate only. The City will use said quantities for the purpose of comparing Bids.
- B9.3 The quantities for which payment will be made to the Contractor are to be determined by the Work actually performed and completed by the Contractor, to be measured as specified in the applicable Specifications.

## **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;
  - (b) be responsible and not be suspended, debarred or in default of any obligation to the City;
  - (c) be financially capable of carrying out the terms of the Contract;
  - (d) have all the necessary experience, capital, organization, and equipment to perform the Work in strict accordance with the terms and provisions of the Contract;
  - (e) have successfully carried out work, similar in nature, scope and value to the Work; and
  - (f) employ only Subcontractors who have successfully carried out work similar in nature, scope and value to the portion of the Work proposed to be subcontracted to them, or who are fully capable of performing the Work required to be done in accordance with the terms of the Contract;
  - (g) have a written workplace safety and health program in accordance with The Workplace Safety and Health Act (Manitoba);

- B10.2 The Bidder shall be prepared to 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.
- B10.3 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 Manitoba, 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.
- B11.2 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.
- B11.3 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.
- B11.4 The City will not pay any interest on certified cheques or drafts furnished as bid security or subsequently retained as performance security.

## **B12. OPENING OF BIDS AND RELEASE OF INFORMATION**

- B12.1 Bid Submissions 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 Bid Submissions determined by the Manager of Materials, or his designate, to not include the bid security specified in B11 will not be read out.

- B12.2 After the public opening, the names of the Bidders and their Total Bid Prices as read out (unevaluated, and pending review and verification of conformance with requirements) will be available in Adobe Acrobat (pdf) format on the Closed Bid Opportunities page at The City of Winnipeg, Corporate Finance, Materials Management Division internet site 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 page at The City of Winnipeg, Corporate Finance, Materials Management Division internet site at <http://www.winnipeg.ca/matmgt>.
- B12.4 The Bidder is advised that any information contained in any Bid Submission may be released if required by City policy or procedures, or by other authorities having jurisdiction.

### **B13. IRREVOCABLE BID**

- B13.1 The Bid(s) submitted by the Bidder shall be irrevocable for the time period specified in Paragraph 11 of Form A: Bid.
- B13.2 The acceptance by the City of any Bid shall not release the Bids of the next two lowest evaluated responsive Bidders and these Bidders shall be bound by their Bids on such Work until a Contract for the Work has been duly executed and the performance security furnished as herein provided, but any Bid shall be deemed to have lapsed unless accepted within the time period specified in Paragraph 11 of Form A: Bid.

### **B14. WITHDRAWAL OF BIDS**

- B14.1 A Bidder may withdraw his Bid without penalty by giving written notice to the Manager of Materials at any time prior to the Submission Deadline.
- B14.1.1 Notwithstanding GC:23.3, 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 shall:
- (a) retain the Bid Submission until after the Submission Deadline has elapsed;
  - (b) open the Bid Submission to identify the contact person named in Paragraph 3 of Form A: Bid and the Bidder's authorized representatives named in Paragraph 12 of Form A: Bid; and
  - (c) if the notice has been given by any one of the persons specified in B14.1.3(b), declare the Bid withdrawn.
- B14.2 A Bidder who withdraws his Bid after the Submission Deadline but before his Bid has been released or has lapsed as provided for in B13.2 shall be liable for such damages as are imposed upon the Bidder by law and subject to such sanctions as the Award Authority 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;
  - (b) qualifications of the Bidder and the Subcontractors, if any, pursuant to B10;
  - (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 Submission 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 if the interests of the City so require.
- B15.3 Further to B15.1(b), the Award Authority shall reject any Bid submitted by a Bidder who does not demonstrate, in his Bid Submission or in other information required to be submitted, that he is responsible and qualified.
- B15.4 Further to B15.1(c), the Total Bid Price shall be the sum of the quantities multiplied by the unit prices for each item shown on Form B: Prices.
- B15.4.1 If there is any discrepancy between the Total Bid Price written in figures, the Total Bid Price written in words and the sum of the quantities multiplied by the unit prices for each item, the sum of the quantities multiplied by the unit prices for each item shall take precedence.

## **B16. AWARD OF CONTRACT**

- B16.1 The Award Authority will give notice of the award of the Contract by way of a letter of intent, 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.

**PART C**  
**GENERAL CONDITIONS**

## **PART C - GENERAL CONDITIONS**

### **C1. GENERAL CONDITIONS**

C1.1 The *General Conditions for Construction Contracts* (Revision 2000 11 09) are applicable to the Work of the Contract.

C1.1.1 The *General Conditions for Construction Contracts* are available in Adobe Acrobat (.pdf) format on the Information Connection page at The City of Winnipeg, Corporate Finance, Materials Management Division internet site at <http://www.winnipeg.ca/matmgt>.

**PART D**

**SUPPLEMENTAL CONDITIONS**

## **PART D - SUPPLEMENTAL CONDITIONS**

### **GENERAL**

#### **D1. GENERAL CONDITIONS**

- D1.1 In addition to the *General Conditions for Construction Contracts*, these Supplemental Conditions are applicable to the Work of the Contract.
- D1.2 The General Conditions are amended by striking out "The City of Winnipeg Act" wherever it appears in the General Conditions and substituting "The City of Winnipeg Charter".
- D1.3 The General Conditions are amended by striking out "Tender Package" wherever it appears in the General Conditions and substituting "Bid Opportunity".
- D1.4 The General Conditions are amended by striking out "Tender Submission" wherever it appears in the General Conditions and substituting "Bid Submission".
- D1.5 The General Conditions are amended by deleting GC:6.16 and GC:6.17. The City of Winnipeg is now within the jurisdiction of the Manitoba Ombudsman pursuant to The Ombudsman Act.

#### **D2. SCOPE OF WORK**

- D2.1 The Work to be done under the Contract shall consist of construction of a Limestone and asphalt pathways and supply and installation of post fencing and Site furnishings.

#### **D3. CONTRACT ADMINISTRATOR**

- D3.1 The Contract Administrator is:  
Mr. Jurgen Friesen  
Technologist II  
Planning, Property and Development  
Planning and Land Use  
Parks, Riverbanks & Community Initiatives Branch  
15 – 30 Fort Street  
  
Telephone No. (204) 986 - 3781  
Facsimile No. (204) 986 – 7524

At the pre-construction meeting, the Contract Administrator will identify additional personnel representing the City of Winnipeg, Public Works Department and their respective roles and responsibilities for the Work.

#### **D4. CONTRACTOR'S SUPERVISOR**

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

#### **D5. NOTICES**

- D5.1 Except as provided for in GC:23.2.2, 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 All notices of appeal to the Chief Administrative Officer shall be sent to the attention of the Chief Financial Officer at the following address or facsimile number:

The City of Winnipeg  
Chief Administrative Officer Secretariat  
Administration Building, 3rd Floor  
510 Main Street  
Winnipeg MB R3B 1B9  
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  
Corporate Services Department  
Legal Services Division  
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. PERFORMANCE SECURITY**

D7.1 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 Manitoba, 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.

D7.2 If the bid security provided in his Bid Submission was not a certified cheque or draft pursuant to B11.1(c), the Contractor shall provide the City Solicitor with the required performance security within seven (7) Calendar Days of notification of the award of the Contract by way of letter of intent and prior to the commencement of any Work on the Site but in no event later than the date specified in GC:4.1 for the return of the executed Contract.

## **D8. INSURANCE**

- D8.1 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) all inclusive, with The City of Winnipeg being added as an additional insured, with a cross-liability clause, such liability policy to also contain a contractual liability, an unlicensed motor vehicle liability and a products and completed operations endorsement to remain in place at all times during the performance of the Work and throughout the warranty period;
  - (b) automobile liability insurance for owned and non-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;
- D8.2 Deductibles shall be borne by the Contractor.
- D8.3 The Contractor shall provide the City Solicitor with a certified true copy or a certificate of insurance of each policy, in a form satisfactory to the City Solicitor, 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 GC:4.1 for the return of the executed Contract.
- D8.4 The Contractor shall not cancel, materially alter, or cause each policy to lapse without providing at least fifteen (15) Calendar Days prior written notice to the Contract Administrator.

## **D9. SUBCONTRACTOR LIST**

- D9.1 The Contractor shall provide the Contract Administrator with a complete list of the Subcontractors whom the Contractor proposes to engage (Form J: Subcontractor List) at least two (2) Business Days prior to the commencement of any Work on the Site but in no event later than the date specified in the General Conditions for the return of the executed Contract result of a repeated records search or a background investigation, shall not be permitted to continue to perform Work under the Contract.

## **SCHEDULE OF WORK**

### **D10. COMMENCEMENT**

- D10.1 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.
- D10.2 The Contractor shall not commence any Work on the Site until:
- (a) the Contract Administrator has confirmed receipt and approval of:
    - (i) evidence that the Contractor is 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;
    - (ii) evidence of the workers compensation coverage specified in GC:6.14;
    - (iii) the performance security specified in D7;
    - (iv) evidence of the insurance specified in D8;
    - (v) the Subcontractor list specified in D9; 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.

D10.3 The Contractor shall commence the Work on the Site within seven (7) Working Days of receipt of the letter of intent.

#### **D11. SUBSTANTIAL PERFORMANCE**

D11.1 The Contractor shall achieve Substantial Performance within Twenty- Five (25) consecutive Working Days of the commencement of the Work as specified in D10.

D11.2 When the Contractor considers the Work to be substantially performed, the Contractor shall arrange, attend and assist in the inspection of the Work with the Contract Administrator for purposes of verifying Substantial Performance. Any defects or deficiencies in the Work noted during that inspection shall be remedied by the Contractor at the earliest possible instance and the Contract Administrator notified so that the Work can be reinspected.

D11.3 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.

#### **D12. TOTAL PERFORMANCE**

D12.1 The Contractor shall achieve Total Performance within Thirty (30) consecutive Working Days of the commencement of the Work as specified in D10.

D12.2 When the Contractor or the Contract Administrator considers the Work to be totally performed, the Contractor shall arrange, attend and assist in the inspection of the Work with the Contract Administrator for purposes of verifying Total Performance. Any defects or deficiencies in the Work noted during that inspection shall be remedied by the Contractor at the earliest possible instance and the Contract Administrator notified so that the Work can be reinspected. All costs associated with re-inspection after the final inspection will be considered as liquidated damages and shall be deducted from the final payment.

D12.3 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.

#### **D13. LIQUIDATED DAMAGES**

D13.1 If the Contractor fails to achieve Substantial Performance in accordance with the Contract by the day fixed herein for Substantial Performance, the Contractor shall pay the City Four-Hundred dollars (\$500.00) per Working Day for each and every Working Day following the day fixed herein for Substantial Performance during which such failure continues.

D13.2 The amount specified for liquidated damages in D13.1 is based on a genuine pre-estimate of the City's losses in the event that the Contractor does not achieve Substantial Performance by the day fixed herein for same.

D13.3 The City may reduce any payment to the Contractor by the amount of any liquidated damages assessed.

#### **CONTROL OF WORK**

##### **D14. PRIME CONTRACTOR – THE WORKPLACE SAFETY AND HEALTH ACT (MANITOBA)**

D14.1 Further to GC:6.26, 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).

**FORM H1: PERFORMANCE BOND**  
(See D7)

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 dated the

\_\_\_\_\_ day of \_\_\_\_\_, 20\_\_\_\_, for:

BID OPPORTUNITY NO. 434-2005

CONSTRUCTION OF 2.4 METRE LIMESTONE PATHWAY & ASSOCIATED WORKS AT STURGEON  
CREEK

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)

\_\_\_\_\_  
(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 (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**

## PART E - SPECIFICATIONS

### GENERAL

#### E1. APPLICABLE SPECIFICATIONS, STANDARD DETAILS AND DRAWINGS

- E1.1 *The City of Winnipeg Standard Construction Specifications* in its entirety, whether or not specifically listed on Form B: Prices, shall apply to the Work.
- E1.1.1 *The City of Winnipeg Standard Construction Specifications* is available in Adobe Acrobat (.pdf) format on the Information Connection page at The City of Winnipeg, Corporate Finance, Materials Management Division internet site at <http://www.winnipeg.ca/matmgt>.
- E1.1.2 Further to GC:2.4(d), Specifications included in the Bid Opportunity shall govern over *The City of Winnipeg Standard Construction Specifications*.
- E1.2 The following Drawings are applicable to the Work:

<u>Drawing No.</u>	<u>Drawing</u>
S.1-AH	Sturgeon Creek Pathway – Hamilton Avenue to Saskatchewan Avenue.
S.1-AI	Sturgeon Creek Pathway – South of Portage Avenue and Details

### GENERAL REQUIREMENTS

#### E2. TRUCK WEIGHT LIMITS

- E2.1 The City shall not pay for any portion of Material which results in the vehicle exceeding the maximum gross vehicle weight allowed under *The City of Winnipeg Traffic By-Law*, unless such vehicle is operating under special permit.

#### E3. SITE ACCESS

- E3.1 Access to the Site will be determined at the pre-construction meeting. This access area shall be provided and maintained by the Contractor at his own expense and approved by the Contract Administrator.
- E3.2 The Contractor shall be restricted to the Site access location and route only so that there is a minimum of disturbance to the existing ground surface. Damage to areas beyond the marked route shall be repaired by and at the expense of the Contractor to the satisfaction of the Contract Administrator.

#### E4. PERMITS, NOTICES, LICENSES, CERTIFICATES, LAWS AND RULES

- E4.1 Further to GC:6.12, the Contractor shall give all necessary notices, obtain all necessary permits and pay all fees in order that the Work may be carried out. The Contractor shall submit all plans required by any inspection authority and obtain approval of same before proceeding with the Work, and pay any cost attached to the inspection of such plans.
- E4.2 The Contractor shall comply with all laws, ordinances, rules and regulations that would relate to the Work.
- E4.3 All notices, consents, approvals, statements, authorizations, documents or other communications to the City shall be submitted to the Contract Administrator.

- E4.4 All Work shall be performed in compliance with the Manitoba Workplace Health and Safety Act.
- E4.5 All Work shall be performed in compliance with the Manitoba Workplace Health and Safety Fall Protection guidelines.
- E4.6 The Contractor and Subcontractors must be fully aware of all Work involving hazardous materials. All Work must be performed in compliance with the Manitoba Department of Labour Workplace Health and Safety Guidelines and all other applicable codes. The Contractor is responsible for the immediate notification to the Contract Administrator of his/her encountering of suspected hazardous material during their course of Work.

## **E5. DAMAGE TO EXISTING STRUCTURES AND PROPERTY**

- E5.1 Further to GC: 17, all necessary precautions shall be exercised by the Contractor so as not to remove, disturb, or damage any existing trees, shrubs, sod, pavements, streets, roads, boulevards, poles, hydrants, water pipes, gas pipes, electrical wires, cables, conduits, sewers or other existing facilities and equipment at the Site of the Work. For all damage incurred thereto in the performance of the Work, the Contractor shall upon instructions from and to the satisfaction of the Contract Administrator and the owners thereof, either replace and repair such damage, whichever may be deemed necessary in the opinion of, and acceptable to, the Contract Administrator and the owners thereof. The cost of which shall be borne entirely by the Contractor.
- E5.2 The Contractor shall also indemnify and save harmless the City from all claims made directly or indirectly against it in respect to any such damage.
- E5.3 The Contractor's operations shall be limited to the minimum area necessary for undertaking the Work and he shall be responsible for all damage resulting from his work on private property. The Contractor shall take such measures as are necessary to ensure safe and convenient pedestrian ingress and egress is maintained to private properties while he is working near them.
- E5.4 Any damage caused by the negligence of the Contractor or his Sub-Contractors to the adjacent works or properties, shall be promptly repaired by him at his own expense, to the satisfaction of the Contract Administrator.

## **E6. TEMPORARY UTILITIES**

- E6.1 Further to GC:6.12, the Contractor shall make his own arrangements in connection with the temporary use of lighting, power, gas, sewer, water or other utilities, and pay all costs in connection therewith.
- E6.2 All necessary permits, fees and other like expenses as well as the cost of temporary connections to existing facilities shall be arranged and paid for by the Contractor.

## **E7. LAYOUT OF WORK**

- E7.1 The Contractor will set control lines and bench marks by means of stakes, buoys or marks and the Contractor shall make the completed works conform to the lines and marks thus indicated. The Contractor shall furnish all other lines and levels required. The Contractor shall be responsible for the careful preservation of all stakes and marks so set whether relating to his own or to other work. Care must be taken that the Contract Administrator be notified immediately of the disturbance of any such stakes or marks; the cost of correcting any errors arising out of neglect of the Contractor or his agent or his employees, to so notify the Contractor Administrator shall be borne entirely by the Contractor, as well as the cost of replacing any disturbed stakes or marks.
- E7.2 All layout Work shall be inspected and approved by the Contract Administrator prior to construction.
- E7.3 Before commencing Work the contractor shall satisfy himself as to the meaning and correctness of all stakes and marks and no claims shall be entertained by the City of Winnipeg on account of any alleged inaccuracies. If any error is suspected in the plans, specifications or the directions of the Contract Administrator, Work shall be discontinued until the errors are rectified, but no claims shall be made on account of any delay occasioned thereby.
- E7.4 The Contractor is responsible to determine the location of all underground utilities and obtain clearances prior to construction. Location of underground structures as shown on the drawings are based on the best information available but no guarantee is given that all existing utilities are shown or that given locations are exact.

## **E8. SITE RESTORATION**

- E8.1 Total Performance of the Work shall not be attained until the Contractor has cleaned up the Site and has removed all plant, tools, equipment, waste, debris and surplus foundation earth to the satisfaction of the Contract Administrator. Unless otherwise specified, the Contractor shall restore all areas of the Site beyond the established limit of Work, which have been disturbed by the Contractor's operations to as good as or better than the original condition to the satisfaction of the Contract Administrator. The Contractor shall pay all costs associated with this Work.

## **E9. EXCAVATION**

- E9.1 This specification shall be done in accordance the City of Winnipeg's Standard Construction Specification CW 3110-R7.
- E9.2 Excavation for the construction of Limestone Pathways shall be understood to include all removal of existing insitu material to a depth of 225 mm below finished grade as shown on the construction drawings.
- E9.3 Excavation for the construction of Asphalt Pathways shall be understood to include all removal of existing asphalt pathways as well as insitu material to a depth of 275 mm below finished grade as shown on the construction drawings.
- E9.4 All excavated material shall be removed, hauled and legally disposed of off-site to the satisfaction of the Contract Administrator.
- E9.5 Measurement and Payment for Excavation will be on a volume basis paid at the Unit Price per cubic metre for "Excavation"

## **E10. SUB-GRADE COMPACTION**

- E10.1 Sub Grade compaction shall be done in accordance with City of Winnipeg's Standard Construction Specification CW 3110-R7.
- E10.2 The bottom of the excavation shall be inspected and approved by the Contract Administrator before the Contractor may begin compaction of the sub-grade.
- E10.3 Sub-grade shall be free of any fibrous organics, softened and disturbed soil. The prepared sub-grade shall be proof rolled with a heavy sheep's foot roller (min 25 passes) and inspected by the Contract Administrator to detect for any soft spots prior to the placement of overlying granular fills.
- E10.4 Recompact or replace any layer or section that has been rejected as directed by the Contract Administrator
- E10.5 Sub-grade shall be compacted to a minimum of ninety five percent (95%) of Standard Proctor Density.
- E10.6 Measurement and Payment of sub-grade compaction will be measured and paid for at the Contract Unit Price per square metre for " Sub-Grade Compaction", which price shall be payment in full for performing all operations herein described and all other items incidental to the work included in this Specification.

## **E11. CRUSHED LIMESTONE PATHWAYS**

- E11.1 This Specification shall amend and supplement the City of Winnipeg Specification CW 3110-R7. The Work to be done by the Contractor under this Specification shall cover all phases of supply and placement of crushed limestone surfacing materials necessary to install a Limestone Pathway.
- E11.2 The Contractor shall survey and stake out pathway prior to the start of construction as shown on the construction drawings. Layout and grades of pathway shall be checked and confirmed with Contract Administrator prior to construction.
- E11.3 New Limestone Pathways shall consist of 150 mm sub base depth of 39 mm diameter crushed limestone down, a 50 mm base coarse depth of 19 mm diameter crushed limestone down, with a 25 mm capping depth of 9.5 mm diameter limestone cap.
- E11.4 All granular sub base, & base coarse shall be placed and compacted as specified to the finished thickness as specified on the drawings.
- E11.5 Sub Base coarse and Base Coarse shall be compacted to a minimum of Hundred (100%) and Ninety (90%) of Standard Proctor Density respectively.
- E11.6 Measurement and Payment will be measured and paid for at the Contract Unit Price per square metre for "Construction of 2.4 metre Limestone Pathway. Price shall be payment in full for supplying materials and for performing all operations listed below.
- (a) Supply and Placement of 39 mm down Crushed Limestone Sub Base Coarse – 150 mm depth
  - (b) Supply and Placement of 19 mm down Crushed Limestone Base Coarse – 50 mm depth
  - (c) Supply and Placement of 9.5 mm down Crushed Limestone Cap – 25 mm depth

## **E12. ASPHALT PATHWAYS**

- E12.1 The Contractor shall supply and construct Type IA Asphaltic Concrete in accordance with the lines, grades and thickness shown on the Construction Drawings and to City of Winnipeg Standard Construction Specification CW 3410-R5. Asphalt shall be placed in one lift.
- E12.2 Geotextile fabric mat shall be supplied and installed in accordance with City of Winnipeg's Standard Construction Specification CW 3130-R3
- E12.3 Crushed limestone base material shall be supplied and installed in accordance with City of Winnipeg's Standard Construction Specification CW 3110-R7
- E12.4 All granular sub base, & base coarse shall be placed and compacted as specified to the finished thickness as specified on the drawings.
- E12.5 Sub base coarse and base coarse shall be compacted to a minimum
- (a) One-Hundred (100%) of Standard Proctor for 50 mm Sub-base
  - (b) Ninety (90%) of Standard Proctor for 19 mm Base - Coarse
- E12.6 Density of completed asphalt after final rolling shall be a minimum of ninety-seven percent (97%) of the 75 blows Standard Marshall Procedure.
- E12.7 Asphalt shall be place when air temperature is at least 4<sup>OC</sup> and rising. During placement and compaction, the temperature of the asphalt aggregate should be in the range of 125<sup>OC</sup> and 155<sup>OC</sup>
- E12.8 A minimum of two approved rollers shall be required on the job-site.
- E12.9 After final rolling the surface shall be smooth and true to the established crown and grade. Any low or defective spots shall immediately be remedied by cutting out the course, or planning to a depth of 40 mm, at such spots and replacing it with a fresh hot mixture that shall be immediately compacted to conform with the surrounding area and shall be thoroughly bonded to it. The surface of the finished pavement shall be free from depressions exceeding 5 mm as measured with a three (3) metre straight edge.
- E12.10 Measurement and Payment will be measured and paid for at the Contract Unit Price per square metre for "Construction of 2.4 metre Asphalt Pathways. Price shall be payment in full for supplying materials and for performing all operations listed below.
- (a) Supply and Placement of Geotextile Fabric Mat
  - (b) Supply and Placement of 50 mm down Crushed Limestone Base Coarse – 150 mm depth
  - (c) Supply and Placement of 20 mm down Crushed Limestone Base Coarse – 50 mm depth
  - (d) Construction of Type 1A Asphalt Pavement – 75 mm depth.

## **E13. POST FENCING**

- E13.1 The specification shall cover the supply and installation of Post Fencing as shown on the construction drawings.
- E13.2 Post Fencing shall be to the size and dimensions as indicated on detail 4 – S.1-AI on the construction drawing S.1-AI.
- E13.3 Post Fencing shall be Western Red Cedar, free of bark, solid core, air dried, pentachlophenol dipped after shaping and drilling- or Manitoba Pine, free of bark, solid core, rough not turned and boliden treated under pressure.

- E13.4 All posts shall be thoroughly tamped to grade and mound approximately 50 mm of topsoil and seed at each post for future settling, surplus earth to be disposed of along boundary line.
- E13.5 Fence Posts are to follow the natural contour of the land except for small undulations which would tend to reduce the aesthetic appearance of the finished product.
- E13.6 Existing bollards located at the Site shall be removed, hauled and legally disposed of off-site to the satisfaction of the Contract Administrator.
- E13.7 Measurement and Payment will be measured and paid for at the Contract Unit Price per Lineal metre for "Supply and Installation of Post Fencing. Price shall be payment in full for supplying materials and for performing all operations listed below.
- E13.8 No separate measurement or payment will be made for removal of existing bollards at the location. It shall be considered incidental to the contract work for supply and installation of Post Fencing.

**E14. SITE FURNITURE AND SIGNAGE**

- E14.1 This Specification shall cover the furnishing of labour, new material, equipment and services necessary for the complete installation of Site Furnishing as shown on the construction drawings.
- E14.2 The Contractor shall supply and install the following Site Furnishings and Signage
  - (a) Three (3) Park Benches
  - (b) Two (2) Waste Receptacle
- E14.3 Park Benches shall be as following
  - (a) Product Recycled Plastic Bench 11- PL
  - (b) Manufacturer DuMor Inc Site Furnishings
  - (c) Model # 11- 60 1.8 m (6') Length
  - (d) Color # Black for Metal and Green for recycled plastic
  - (e) Support Option S-1 Embedment

Source for Bench: GAT Home Company Ltd  
289 King Street  
Winnipeg, Manitoba  
Tel: (204) 943 - 5050  
Contact: Neil Buller

- E14.4 Park Benches are to be installed according to the construction drawings and manufacturer's specifications.
- E14.5 The exact location of Park Benches will be determined in the field by the Contract Administrator.

E14.6 Waste Receptacles shall be as following

- (a) Product Trash Basket -Expanded Metal Basket
- (b) Product # 52501051
- (c) Manufacturer City of Winnipeg

Source for Waste Receptacle City of Winnipeg  
Fleet Management Agency  
Central Manufacturing/Repair Facility  
215 Tecumseh Street  
Tel: (204) 986 – 5505  
Contact: Bill Dowbyhuz

E14.7 The exact locations of Waste Receptacles will be determined in the field by the Contract Administrator.

E14.8 Measurement and Payment will be bases on a unit basis. The number of each item to be paid for will the total number of

- (a) Park Benches supplied and installed.
- (b) Waste Receptacles supplied and installed
- (c) Price shall be payment in full for supply of all materials, installation, concrete work and all other items incidental to the Work included in this Specification.

#### **E15. TOPSOIL AND SEEDING**

E15.1 Topsoil & Seed shall be done in accordance with City of Winnipeg Standard Construction Specification CW 3540 – R3 and CW 3520- R5 respectively.

E15.2 The Contractor shall supply a mixture composed of :

- (a) Sixty percent (60%) Kentucky Bluegrass (100% Class 2 cultivars, 3 cultivars in equal proportion), thirty percent (30%) Creeping Red Fescue and ten percent (10%) Perennial Ryegrass.

E15.3 The Contractor shall supply Topsoil & Seed to a compacted depth of 100 mm below finished grade along the perimeter of the pathways. Topsoil shall be level with the existing sod, as directed by the Contract Administrator.

E15.4 Any damage to grassed areas beyond the specified limit of the Work disturbed by the Contractor's operations, employees and equipment shall be restored or replaced at the Contractor's expense to a condition equal to or better then that prior to the commencement of this construction operation to the satisfaction of the Contract Administrator. Sodding only will be acceptable for grassed area restoration.

E15.5 The Contractor at his expense may be required to submit test results and samples of his proposed soil to the Contract Administrator for testing.

E15.6 Topsoil & Seeding will be measured on an area basis and paid at the Contract Unit Price per square metre for "Topsoil & Seeding" The area to be paid for will be the total number of square metres placed and maintained in accordance with this Specification, accepted and measured by the Contract Administrator.

## E16. TOPSOIL AND SODDING

- E16.1 Topsoil & Sodding shall be done in accordance with City of Winnipeg Standard Construction Specification CW 3540 – R2 and CW 3510- R7 respectively
- E16.2 The Contractor shall supply mineral sod with a soil layer containing a minimum of 70% inorganic soil. Salinity rating shall be less than 2.5mmhos/cm. The pH range shall be between 6.0 – 8.0 .Sod supplied shall have been sown in nursery fields with Canada Certified No.1 or Canada Certified No. 2 grass seed meeting the following certified seed blends or mixtures.
- (a) A blend composed of one hundred percent (100%) Kentucky Bluegrass (100% Class 2 cultivators as specified below
  - (b) A mixture of ninety five percent (95%) Kentucky Bluegrass (100% Class 2 cultivators as specified below) and five percent (5%) Creeping Red fescue

Class 2 Cultivators – specified blend of Class 2 cultivators shall consist of equal proportions of any three of the following

Absolute	Allure	Apollo	Arcadia Ascot	Award	Baronie
Baronie	Bartitia	Baruzo	Blacksburg	Caliber	Cardiff
Challenger	Champagne	Chateau	Chicago	Classic	Compact
Conni	Coventry	Dragon	Eclipse	Estate	Fortina
Glade	Haga	Huntsville	Impact	Jefferson	Kenblue
Liberator	Lipoa	Livingston	Limousine	Marquis	Moonlight
Northstar	Nustar	Odyssey	Park	Pepaya	Platini
Rambo	Raven	Rugby	Rugby II	Seabring	Sidekick
SR1200	SR2109	Touchdown	Washington	Wildcat	

- E16.3 Any variations to the above referenced seed blends or mixtures shall be approved by the Contract Administrator
- E16.4 On embankments and berms, sod shall be placed lengthwise across the face of the slope. On slopes of 1 vertical to 3 horizontal (18 degrees) or steeper, in every second row on the slope and at the foot of the slope, each piece of sod shall be pegged with two minimum 250 mm long wooden pegs driven into the soil layer of the sod. On slopes of 1 vertical to 2 horizontal (26 degrees) or steeper, each piece of sod in every row shall be pegged with two minimum 250 mm long wooden pegs driven into the soil layer of the sod.
- E16.5 Sodding operations shall be completed within two days (48 hours) after placing the sod. This shall be deemed to include watering, rolling, and repairing any visible joints and low, bare or dead spots within the sodded area.
- E16.6 Sod will be accepted after the termination of 30 day maintenance period providing it meets the following requirements
- (a) The work site is clean and the sodded area is free of any visual obstructions such as leaves
  - (b) The sod is free of dead and bare spots and without more than 10 broadleaf weeds per 50 square metres

- (c) Grass roots are well anchored into the underlying topsoil and the sodded area has established into a healthy, vigorously growing condition.
- (d) Sodded areas are free of visible joints.
- (e) The sod has sufficient shoot density that no surface soil is visible when the grass has been cut to a height of 50 – 60 mm
- (f) Sodded area has been cut to a height of 50 – 60 mm within 48 hours before the final inspection.
- (g) Sodded area is free of any turf damaging insects.

E16.7 Any deficient, damaged or vandalized areas may have to be resodded by the Contractor within three (3) Working Days after receiving notification from the Contract Administrator and the area so resodded.

E16.8 Contractor will be responsible to carry out maintenance as specified in 9.8 of CW3510-R7

E16.9 Topsoil & Sodding will be measured on an area basis and paid at the Contract Unit Price per square metre for "Topsoil & Sodding" The area to be paid for will be the total number of square metres placed and maintained in accordance with this Specification, accepted and measured by the Contract Administrator. Topsoil & Sodding shall be done in accordance with City of Winnipeg Standard Construction Specification CW 3540 – R2 and CW 3510- R7 respectively

## **E17. CRACK SEALING**

E17.1 As a warranty requirement, the Contractor shall rout and seal any and all cracks which may appear during the one-year warranty period. Crack sealing shall conform to the requirements of City of Winnipeg Standard Construction CW 3250 – R3.

E17.2 No separate payment will be made for this item as it is considered a warranty issue and shall fall under G.C. 13 – Warranty.

## **E18. PROTECTION OF TREES**

E18.1 The Contractor shall take the following precautionary steps to avoid damage from his construction activities to existing Boulevard trees within the limits of the construction area

- (a) The Contractor shall not stockpile materials and soil or park vehicles and equipment on boulevards within 2 metres of trees
- (b) Contract Administrator shall identify the mature tree trunks that shall be strapped with 25 x 150 x 2400 (1" x 6" x 8') wood planks. Smaller trees shall be similar protected using appropriately sized wood planks.
- (c) Excavations shall be carried out in such a manner so as to minimize damage to existing tree branches. Where roots must be cut to facilitate an excavation they shall be neatly pruned at the face of the excavation and coated with an appropriate wound dressing to prevent infection.
- (d) Work on Site shall be carried out in such a manner so as to minimize damage to existing tree branches. Where damage to tree branches does occur, the Contractor shall neatly prune the damaged branches and coat them with an appropriate wound dressing to prevent infection.

E18.2 All damage to existing trees caused by the Contractor's construction activities shall be repaired to the requirements and satisfaction of the City of Winnipeg, Parks and Recreation Department, Forestry Branch.

E18.3 Any tree pruning required by the Contractor to successfully complete the work will be done at his own expense and to the guidelines set forth by the City of Winnipeg Forestry Department.

E18.4 No separate measurement or payment will be made for protection of trees. It shall be considered incidental to the contract work

## **E19. SITE CLEANUP**

E19.1 All pathways, streets, approaches, driveways and properties near the Work Site shall be kept clean at all times by the Contractor

E19.2 Upon completion of the project, the Contractor shall immediately remove all excess materials and debris from the Work Site.

## **E20. SAFETY**

E20.1 Safety and Health Regulations

E20.1.1 The Contractor shall comply with the following:

- a) The City of Winnipeg's Safety in the Workplace Policy for Alcohol or any Mood or Mind Altering Drug in the Workplace;
- b) The City of Winnipeg Safety Manual;
- c) The Public Works Department's Safety Regulations;
- d) The Province of Manitoba Workplace, Safety and Health Act.

E20.1.2 The Contract Administrator and the City of Winnipeg, Public Works Department's Safety Officer has the authority to enforce all the above listed safety and/or health regulations.

E20.1.3 The Contractor is advised that these safety regulations are available for viewing by contacting the Contract Administrator.

E20.2 Site Safety Procedures

E20.2.1 The Contractor shall be solely responsible for construction and public safety at the Site and for securing the Site at all times to prevent public access.

E20.2.2 The Contractor shall, at his own expense, do whatever is necessary to ensure that when Work is stopped and the Contractor leaves the Site for whatever reason, the Site and Work is made safe, including but not limited to:

- a) The removal and/or safe storage of all construction equipment and materials;
- b) The equipment installed and/or in the process of installation be completed or secured to ensure that no public hazards exist;
- c) That all open excavations be filled; and
- d) That all construction debris and surplus excavation material be removed from the Site.