



**THE CITY OF WINNIPEG**

# **BID OPPORTUNITY**

**BID OPPORTUNITY NO. 634-2013**

**REGENT AVENUE WEST TREE VAULTS**

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## **PART B - BIDDING PROCEDURES**

### **B1. CONTRACT TITLE**

B1.1 REGENT AVENUE WEST TREE VAULTS

### **B2. SUBMISSION DEADLINE**

B2.1 The Submission Deadline is 4:00 p.m. Winnipeg time, September 30, 2013.

B2.2 Bids determined by the Manager of Materials to have been received later than the Submission Deadline will not be accepted and will be returned upon request.

B2.3 The Contract Administrator or the Manager of Materials may extend the Submission Deadline by issuing an addendum at any time prior to the time and date specified in B2.1.

### **B3. SITE INVESTIGATION**

B3.1 Further to C3.1, the Bidder may view the Site without making an appointment.

### **B4. ENQUIRIES**

B4.1 All enquiries shall be directed to the Contract Administrator identified in D3.1.

B4.2 If the Bidder finds errors, discrepancies or omissions in the Bid Opportunity, or is unsure of the meaning or intent of any provision therein, the Bidder shall notify the Contract Administrator of the error, discrepancy or omission, or request a clarification as to the meaning or intent of the provision at least five (5) Business Days prior to the Submission Deadline.

B4.3 Responses to enquiries which, in the sole judgment of the Contract Administrator, require a correction to or a clarification of the Bid Opportunity will be provided by the Contract Administrator to all Bidders by issuing an addendum.

B4.4 Responses to enquiries which, in the sole judgment of the Contract Administrator, do not require a correction to or a clarification of the Bid Opportunity will be provided by the Contract Administrator only to the Bidder who made the enquiry.

B4.5 The Bidder shall not be entitled to rely on any response or interpretation received pursuant to B4 unless that response or interpretation is provided by the Contract Administrator in writing.

### **B5. CONFIDENTIALITY**

B5.1 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.

B5.2 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.

## **B6. ADDENDA**

- B6.1 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.
- B6.2 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.
- B6.2.1 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/>
- B6.2.2 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.
- B6.2.3 The Bidder shall acknowledge receipt of each addendum in Paragraph 9 of Form A: Bid. Failure to acknowledge receipt of an addendum may render a Bid non-responsive.

## **B7. SUBSTITUTES**

- B7.1 The Work is based on the Plant, Materials and methods specified in the Bid Opportunity.
- B7.2 Substitutions shall not be allowed unless application has been made to and prior approval has been granted by the Contract Administrator in writing.
- B7.3 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.
- B7.4 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.
- B7.5 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.
- B7.6 The Contract Administrator will provide a response in writing, at least two (2) Business Days prior to the Submission Deadline, only to the Bidder who requested approval of the substitute.

- B7.6.1 The Bidder requesting and obtaining the approval of a substitute shall be entirely responsible for disseminating information regarding the approval to any person or persons he/she wishes to inform.
- B7.7 If the Contract Administrator approves a substitute as an “approved equal”, any Bidder may use the approved equal in place of the specified item.
- B7.8 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.
- B7.9 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.
- B7.10 Notwithstanding B7.2 to B7.9, and in accordance with B8.7, deviations inconsistent with the Bid Opportunity document shall be evaluated in accordance with B15.1(a).

## **B8. BID COMPONENTS**

- B8.1 The Bid shall consist of the following components:
- (a) Form A: Bid;
  - (b) Form B: Prices.
- B8.2 Further to B8.1, the Bidder should include the written correspondence from the Contract Administrator approving a substitute in accordance with B7.
- B8.3 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.
- B8.4 The Bid Submission may be submitted by mail, courier or personal delivery, or by facsimile transmission.
- B8.5 If the Bid Submission is submitted by mail, courier or personal delivery, it shall be enclosed and sealed in an envelope clearly marked with the Bid Opportunity number and the Bidder's name and address, and shall be submitted to:
- The City of Winnipeg  
Corporate Finance Department  
Materials Management Division  
185 King Street, Main Floor  
Winnipeg, MB R3B 1J1
- B8.5.1 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.
- B8.6 Bidders are advised not to include any information/literature except as requested in accordance with B8.1.
- B8.7 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).
- B8.8 If the Bid Submission is submitted by facsimile transmission, it shall be submitted to 204 949-1178.
- B8.8.1 The Bidder is advised that the City cannot take responsibility for the availability of the facsimile machine at any time.

B8.8.2 Bids submitted by internet electronic mail (e-mail) will not be accepted.

**B9. BID**

B9.1 The Bidder shall complete Form A: Bid, making all required entries.

B9.2 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.

B9.2.1 If a Bid is submitted jointly by two or more persons, each and all such persons shall identify themselves in accordance with B9.2.

B9.3 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.

B9.4 Paragraph 11 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;
- (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.

B9.4.1 The name and official capacity of all individuals signing Form A: Bid should be printed below such signatures.

B9.4.2 All signatures shall be original.

B9.5 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.

**B10. PRICES**

B10.1 The Bidder shall state a price in Canadian funds for each item of the Work identified on Form B: Prices.

B10.2 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.

B10.3 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.

B10.4 Payments to Non-Resident Contractors are subject to Non-Resident Withholding Tax pursuant to the Income Tax Act (Canada).

## **B11. QUALIFICATION**

### **B11.1 The Bidder shall:**

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

### **B11.2 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>

### **B11.3 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)

### **B11.4 Further to B11.3(c), if the Total Bid Price exceeds one hundred thousand dollars (\$100,000), 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/Subcontractors has a workplace safety and health program meeting the requirements of The Workplace Safety and Health Act (Manitoba), by providing:**

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

### **B11.5 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.**

### **B11.6 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.**

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

### **B12.1 Bids will not be opened publicly.**

### **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/bidopp.asp>**



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 10 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 for the time period specified in Paragraph 10 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 11 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 11 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.

### **B15. EVALUATION OF BIDS**

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

- (a) compliance by the Bidder with the requirements of the Bid Opportunity or acceptable deviation there from (pass/fail);
- (b) qualifications of the Bidder and the Subcontractors, if any, pursuant to B11 (pass/fail);
- (c) Total Bid Price;
- (d) economic analysis of any approved alternative pursuant to B7.

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 adjusted, if necessary, as follows:
- (a) if the lowest evaluated responsive Bid submitted by a responsible and qualified Bidder is within the budgetary provision for the Work, no adjustment will be made to the Total Bid Price; or
  - (b) if the lowest evaluated responsive Bid submitted by a responsible and qualified Bidder exceeds the budgetary provision for the Work, the Total Bid Prices of all responsive Bids submitted by responsible and qualified Bidders will be adjusted by progressively deducting the quantity in item(s) 1.ii, 2 and 3, until a Total Bid Price within the budgetary provision is achieved.
- 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.

## **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.
- B16.4 Notwithstanding C4, the City will issue a Purchase Order to the successful Bidder in lieu of the execution of a Contract.
- B16.5 The Contract, as defined in C1.1, in its entirety shall be deemed to be incorporated in and to form a part of the Purchase Order notwithstanding that it is not necessarily attached to or accompany said Purchase Order.

## 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 supply and installing new Tree Vaults within Regent Avenue West street right of way between Winona Street and Bond Street.

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

- (a) Excavations and removals;
- (b) Concrete works;
- (c) Tree Vaults and Covers.

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

D3.1 The Contract Administrator is:

Martha Barwinsky  
City Forester

Telephone No. 204-986-3701  
Facsimile No. 204-986-3860

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

D3.3 Bids Submissions must be submitted to the address in B8.5.

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

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

#### **D5. OWNERSHIP OF INFORMATION, CONFIDENTIALITY AND NON DISCLOSURE**

D5.1 The Contract, all deliverables produced or developed, and information provided to or acquired by the Contractor are the property of the City and shall not be appropriated for the Contractors own use, or for the use of any third party.

D5.2 The Contractor shall not make any public announcements or press releases regarding the Contract, without the prior written authorization of the Contract Administrator.

D5.3 The following shall be confidential and shall not be disclosed by the Contractor to the media or any member of the public without the prior written authorization of the Contract Administrator;

- (a) information provided to the Contractor by the City or acquired by the Contractor during the course of the Work;
- (b) the Contract, all deliverables produced or developed; and
- (c) any statement of fact or opinion regarding any aspect of the Contract.

D5.4 A Contractor who violates any provision of D5 may be determined to be in breach of Contract.

## **D6. NOTICES**

D6.1 Except as provided for in C23.2.2, all notices, requests, nominations, proposals, consents, approvals, statements, authorizations, documents or other communications to the Contractor shall be sent to the address or facsimile number identified by the Contractor in Paragraph 2 of Form A: Bid.

D6.2 All notices, requests, nominations, proposals, consents, approvals, statements, authorizations, documents or other communications to the City, except as expressly otherwise required in D6.3, D6.4 or elsewhere in the Contract, shall be sent to the attention of the Contract Administrator at the facsimile number identified in D3.1.

D6.3 Notwithstanding C21., all notices of appeal to the Chief Administrative Officer shall be sent to the attention of the Chief Financial Officer at the following facsimile number:

The City of Winnipeg  
Chief Financial Officer

Facsimile No.: 204 949-1174

D6.4 All notices, requests, nominations, proposals, consents, approvals, statements, authorizations, documents or other communications required to be submitted or returned to the City Solicitor shall be sent to the following facsimile number:

The City of Winnipeg  
Legal Services Department  
Attn: Director of Legal Services

Facsimile No.: 204 947-9155

## **SUBMISSIONS**

### **D7. AUTHORITY TO CARRY ON BUSINESS**

D7.1 The Contractor shall be in good standing under The Corporations Act (Manitoba), or properly registered under The Business Names Registration Act (Manitoba), or otherwise properly registered, licensed or permitted by law to carry on business in Manitoba, or if the Contractor does not carry on business in Manitoba, in the jurisdiction where the Contractor does carry on business, throughout the term of the Contract, and shall provide the Contract Administrator with evidence thereof upon request.

### **D8. SAFE WORK PLAN**

D8.1 The Contractor shall provide the Contract Administrator with a Safe Work Plan at least five (5) Business Days prior to the commencement of any Work on the Site but in no event later than the date specified in C4.1 for the return of the executed Contract.

D8.2 The Safe Work Plan should be prepared and submitted in the format shown in the City's template which is available on the Information Connection page at The City of Winnipeg, Corporate Finance, Materials Management Division website at <http://www.winnipeg.ca/matmgt/Safety/default.stm>

### **D9. INSURANCE**

D9.1 The Contractor shall provide and maintain the following insurance coverage:

- (a) commercial general liability insurance, in the amount of at least two million dollars (\$2,000,000.00) inclusive, with The City of Winnipeg added as an additional insured, with a cross-liability clause, such liability policy to also contain contractual liability, unlicensed motor vehicle liability, non-owned automobile liability 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) all risks installation floater, carrying adequate limits to cover all machinery, equipment, supplies and/or materials intended to enter into and form part of any installation.

D9.2 Deductibles shall be borne by the Contractor.

D9.3 The Contractor shall provide the Contract Administrator 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 seven (7) Calendar Days from notification of the award of Contract by Purchase Order.

D9.4 The Contractor shall not cancel, materially alter, or cause each policy to lapse without providing at least thirty (30) Calendar Days prior written notice to the Contract Administrator.

#### **D10. PERFORMANCE SECURITY**

D10.1 If the Contract Price exceeds twenty-five thousand dollars (\$25,000.00), the Contractor shall provide and maintain performance security until the expiration of the warranty period in the form of:

- (a) a performance bond of a company registered to conduct the business of a surety in Manitoba, in the form attached to these Supplemental Conditions (Form H1: Performance Bond), in the amount of fifty percent (50%) of the Contract Price; or
- (b) an irrevocable standby letter of credit issued by a bank or other financial institution registered to conduct business in Manitoba and drawn on a branch located in Winnipeg, in the form attached to these Supplemental Conditions (Form H2: Irrevocable Standby Letter of Credit), in the amount of fifty percent (50%) of the Contract Price; or
- (c) a certified cheque or draft payable to "The City of Winnipeg", drawn on a bank or other financial institution registered to conduct business in Manitoba, in the amount of fifty percent (50%) of the Contract Price.

D10.1.1 Where the performance security is in the form of a certified cheque or draft, it will be deposited by the City. The City will not pay any interest on certified cheques or drafts furnished as performance security.

D10.2 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 Purchase Order and prior to the commencement of any Work on the Site.

#### **D11. SUBCONTRACTOR LIST**

D11.1 The Contractor shall provide the Contract Administrator with a complete list of the Subcontractors whom the Contractor proposes to engage (Form J: Subcontractor List) at least two (2) Business Days prior to the commencement of any Work on the Site but in no event later than seven (7) Calendar Days from notification of the award of Contract.

#### **D12. EQUIPMENT LIST**

D12.1 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 preconstruction 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. DETAILED WORK SCHEDULE**

D13.1 The Contractor shall provide the Contract Administrator with a detailed work schedule at least two (2) business days prior to the commencement of any work on the site but in no event later than the date specified in C 4.1 for the return of the executed contract.

D13.2 Detailed Work Schedule shall consist of the following dates:

- (a) Start date;
- (b) Excavation & removals;
- (c) Concrete works;
- (d) Tree Vaults and Covers; and
- (e) Expected completion.

D13.3 Other milestone dates appropriate to this project should also be included to make the Contract Administrator Aware of them.

### **SCHEDULE OF WORK**

#### **D14. COMMENCEMENT**

D14.1 The Contractor shall not commence any Work until he/she is in receipt of a Purchase Order from the Award Authority authorizing the commencement of the Work.

D14.2 The Contractor shall not commence any Work on the Site until:

- (a) the Contract Administrator has confirmed receipt and approval of:
  - (i) evidence of authority to carry on business specified in D7;
  - (ii) evidence of the workers compensation coverage specified in C6.15;
  - (iii) the Safe Work Plan specified in D8;
  - (iv) evidence of the insurance specified in D9;
  - (v) the performance security specified in D10;
  - (vi) the Subcontractor list specified in D11;
  - (vii) the equipment list specified in D12; and
  - (viii) the detailed work schedule specified in D13.
- (b) the Contractor has attended a pre-construction meeting with the Contract Administrator, or the Contract Administrator has waived the requirement for a pre-construction meeting.

D14.3 The Contractor shall commence the Work on the Site within seven (7) Working Days of receipt of the Purchase Order.

#### **D15. SUBSTANTIAL PERFORMANCE**

D15.1 The Contractor shall achieve Substantial Performance within thirty (25) consecutive Working Days of the commencement of the Work as specified in D14.

D15.2 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.

D15.3 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.

#### **D16. TOTAL PERFORMANCE**

D16.1 The Contractor shall achieve Total Performance within forty (35) consecutive Working Days of the commencement of the Work as specified in D14.

D16.2 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.

D16.3 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.

#### **D17. LIQUIDATED DAMAGES**

D17.1 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 five hundred dollars (\$500) per Working Day for each and every Working Day following the day fixed herein for Substantial Performance during which such failure continues.

D17.2 The amount specified for liquidated damages in D17.1 is based on a genuine pre-estimate of the City's damages in the event that the Contractor does not achieve Substantial Performance by the day fixed herein for same.

D17.3 The City may reduce any payment to the Contractor by the amount of any liquidated damages assessed.

#### **CONTROL OF WORK**

##### **D18. JOB MEETINGS**

D18.1 Regular weekly job meetings will be held at the Site. These meetings shall be attended by a minimum of one representative of the Contract Administrator, one representative of the City and one representative of the Contractor. Each representative shall be a responsible person capable of expressing the position of the Contract Administrator, the City and the Contractor respectively on any matter discussed at the meeting including the Work schedule and the need to make any revisions to the Work schedule. The progress of the Work will be reviewed at each of these meetings.

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

##### **D19. PRIME CONTRACTOR – THE WORKPLACE SAFETY AND HEALTH ACT (MANITOBA)**

D19.1 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).

##### **D20. THE WORKPLACE SAFETY AND HEALTH ACT (MANITOBA) – QUALIFICATIONS**

D20.1 Further to B11.4, 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 B11.4.

## **MEASUREMENT AND PAYMENT**

### **D21. PAYMENT**

D21.1 Further to C12, the City may at its option pay the Contractor by direct deposit to the Contractor's banking institution.

## **WARRANTY**

### **D22. WARRANTY**

D22.1 Warranty is as stated in C13.

**FORM H1: PERFORMANCE BOND**  
(See D10)

KNOW ALL MEN BY THESE PRESENTS THAT

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

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

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

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

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

BID OPPORTUNITY NO. 634-2013

REGENT AVENUE WEST TREE VAULTS

which is by reference made part hereof and is hereinafter referred to as the "Contract".

NOW THEREFORE the condition of the above obligation is such that if the Principal shall:

- (a) carry out and perform the Contract and every part thereof in the manner and within the times set forth in the Contract and in accordance with the terms and conditions specified in the Contract;
- (b) perform the Work in a good, proper, workmanlike manner;
- (c) make all the payments whether to the Obligee or to others as therein provided;
- (d) in every other respect comply with the conditions and perform the covenants contained in the Contract; and
- (e) indemnify and save harmless the Obligee against and from all loss, costs, damages, claims, and demands of every description as set forth in the Contract, and from all penalties, assessments, claims, actions for loss, damages or compensation whether arising under "The Workers Compensation Act", or any other Act or otherwise arising out of or in any way connected with the performance or non-performance of the Contract or any part thereof during the term of the Contract and the warranty period provided for therein;

THEN THIS OBLIGATION SHALL BE VOID, but otherwise shall remain in full force and effect. The Surety shall not, however, be liable for a greater sum than the sum specified above.

AND IT IS HEREBY DECLARED AND AGREED that the Surety shall be liable as Principal, and that nothing of any kind or matter whatsoever that will not discharge the Principal shall operate as a discharge or release of liability of the Surety, any law or usage relating to the liability of Sureties to the contrary notwithstanding.

IN WITNESS WHEREOF the Principal and Surety have signed and sealed this bond the

\_\_\_\_\_ day of \_\_\_\_\_, 20\_\_\_\_ .

**SIGNED AND SEALED**  
in the presence of:

\_\_\_\_\_  
(Witness as to Principal if no seal)

\_\_\_\_\_  
(Name of Principal)

Per: \_\_\_\_\_ (Seal)

Per: \_\_\_\_\_

\_\_\_\_\_  
(Name of Surety)

By: \_\_\_\_\_ (Seal)  
(Attorney-in-Fact)

**FORM H2: IRREVOCABLE STANDBY LETTER OF CREDIT  
(PERFORMANCE SECURITY)**  
(See D10)

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

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

RE: PERFORMANCE SECURITY - BID OPPORTUNITY NO. 634-2013  
REGENT AVENUE WEST TREE VAULTS

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

\_\_\_\_\_  
(Name of Contractor)

\_\_\_\_\_  
(Address of Contractor)

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

\_\_\_\_\_ Canadian dollars.

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

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

Partial drawings are permitted.

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

\_\_\_\_\_  
(Address)

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

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

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

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

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

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

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

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

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

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



## PART E - SPECIFICATIONS

### GENERAL

#### E1. APPLICABLE SPECIFICATIONS AND DRAWINGS

- E1.1 These Specifications shall apply to the Work.
- E1.2 *The City of Winnipeg Standard Construction Specifications* in its entirety, whether or not specifically listed on Form B: Prices, shall apply to the Work.
- E1.2.1 *The City of Winnipeg Standard Construction Specifications* is available on the Information Connection page at The City of Winnipeg, Corporate Finance, Materials Management Division website at <http://www.winnipeg.ca/matmgt/Spec/Default.stm>
- E1.2.2 The version in effect three (3) Business Days before the Submission Deadline shall apply.
- E1.2.3 Further to C2.4(d), Specifications included in the Bid Opportunity shall govern over *The City of Winnipeg Standard Construction Specifications*.
- E1.3 The following are applicable to the Work:

<u>Drawing No.</u>	<u>Drawing Name/Title</u>
R.56-A1	Regent Avenue West Tree Vaults – Existing Conditions and Removals
R.56-A2	Regent Avenue West Tree Vaults – Proposed
R.56-A3	Regent Avenue West Tree Vaults – Layout
R.56-A4	Regent Avenue West Tree Vaults - Details
SD-229C	Curb Ramp for Concrete Pavement

#### E2. PROTECTION OF EXISTING TREES

- E2.1 The Contractor shall take the following precautionary steps to prevent damage from construction activities to existing boulevard trees within the limits of the construction area:
- The Contractor shall not stockpile materials and soil or park vehicles and equipment on boulevards within 2 metres of trees.
  - Trees identified to be at risk by the Contract Administrator are to be strapped with 25 x 100 x 2400mm wood planks, or suitably protected as approved by the Contract Administrator.
  - Excavation shall be performed in a manner that minimizes damage to the existing root systems. Where possible, excavation shall be carried out such that the edge of the excavation shall be a minimum of 1.5 times the trunk diameter at breast height (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 by an arborist licenced in Manitoba.
  - Operation of equipment within the dripline of the trees shall be kept to the minimum required to perform the work required. Equipment shall not be parked, repaired, refuelled; construction materials shall not be stored, and earth materials shall not be stockpiled within the driplines of trees. The dripline of a tree shall be considered to be the ground surface directly beneath the tips of its outermost branches. The Contractor shall ensure that the operations do not cause flooding or sediment deposition on areas where trees are located.
  - Work on-site shall be carried out in such a manner so as to minimize damage to existing tree branches. Where damage to branches does occur, they shall be neatly pruned by an arborist licenced in Manitoba.

- E2.2 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.
- E2.3 No separate measurement or payment will be made for the protection of trees.
- E2.4 Except as required in clause E2.1(c) and E2.1(e), Elm trees shall not be pruned at any time between April 1 and July 31.

### **E3. TRAFFIC CONTROL**

- E3.1 Further to clauses 3.6 and 3.7 of CW 1130:
- (a) 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.

### **E4. TRAFFIC MANAGEMENT**

- E4.1 Further to clause 3.7 of CW 1130:
- E4.1.1 No traffic lanes are to be closed without written permission from the Contract Administrator.
- E4.1.2 Intersecting street and private approach access shall be maintained at all times.
- E4.1.3 Should the Contractor be unable to maintain pedestrian or vehicular access to a residence or business, 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.
- E4.1.4 Pedestrian and ambulance/emergency vehicle access must be maintained at all times.

### **E5. PEDESTRIAN SAFETY**

- E5.1 Open excavations cannot be left open when workers are not present. Contractor shall ensure they are barricaded and covered when left unattended. No measurement for payment shall be made for this work.

### **E6. SURFACE RESTORATIONS**

- E6.1 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.

### **E7. EXCAVATION AND REMOVALS**

- E7.1 Description
- E7.1.1 This Specification shall cover the excavation and removal of existing:
- (a) Concrete sidewalk;
  - (b) Tree pits, including tree stump if present, in order to construct new tree vaults as per E10 and new concrete sidewalk as per E12.



E7.1.2 The Work to be done by the Contractor under this Specification shall supplement standard City of Winnipeg specifications CW 3110, CW 3230, CW 3235, and CW 3330 and shall include the furnishing of all superintendence, overhead, labour, equipment, tools, supplies and all other things necessary for and incidental to the satisfactory performance and completion of all Work hereinafter specified.

## E7.2 Construction Methods

E7.2.1 Located within the new tree vault locations and new concrete sidewalk areas include existing concrete sidewalk and existing tree wells, some of which may include tree stumps which shall be removed as part of the scope of work.

E7.2.2 The Contractor shall restrict his activities strictly to within the limits of the Works, unless receiving prior written approval from the Contract Administrator.

E7.2.3 The Contractor must ensure that all buried utilities and services are located and if necessary, protected and exposed prior to any excavation in accordance with Specification CW 1120.

E7.2.4 Excavate the tree vault to the dimensions and depth shown on the Drawings. Soft dig/ day lighting process, as per E8, to be used in area of existing underground utilities.

E7.2.5 Excavate and remove the existing tree wells, and any tree stumps, if present, as indicated on Drawings in order to accommodate new concrete sidewalk as per E12.

E7.2.6 The Contractor shall sawcut and remove existing concrete sidewalk paving. Sawcuts shall be straight and clean to be used as new edge of construction.

E7.2.7 If unit paver band must be removed temporarily in order to construct new tree vaults:

- (a) the paving stones and base courses shall be removed as required, and the paving stones shall be stockpiled in approved area for future reinstallation.
- (b) Any existing concrete base at the limits of the designated area shall be sawcut for the full depth of the pavement prior to the demolition and removal operations.
- (c) The Contractor shall exercise due caution during the Interlock paving stone removal Works so as to limit vibration. The Contractor shall take all necessary precautions when Working in the vicinity of any existing duct lines, trees, hedges, etc.

E7.2.8 Remove sidewalk base and sub base where required to achieve tree pit width indicated on the Drawings. Avoid removing any roadway base or sub-base material.

E7.2.9 Clear excavation of all construction debris, trash, rubble and any foreign material. Fill over excavations with approved fill and compact to the required subgrade compaction.

E7.2.10 All excavated material shall be disposed of off-site.

E7.2.11 The Contractor shall ensure that upon completion of the removal operations, the Site shall be left free of any hazardous depressions and in a neat condition.

E7.2.12 If required and at locations directed by the Contract Administrator, the Contractor shall excavate and remove unsuitable subgrade material and replace it with compacted granular material in accordance with Specification CW3110.

## E7.3 Method of Measurement and Basis of Payment

E7.3.1 Method of Measurement shall be as follows:

(a) No measurement will be made for Excavation and Removals as these items are incidental to E10;

E7.3.2 Basis of Payment shall be as follows:

(a) No payment will be made for Excavation and Removals as these items are incidental to E10.

## **E8. SOFT EXCAVATION TO EXPOSE UNDERGROUND UTILITIES**

### **E8.1 Description**

E8.1.1 This specification covers the soft excavation to expose underground utilities to determine the depth of the underground utility and whether it will interfere with the installation of proposed Works on site.

E8.1.2 These underground utilities include, **but are not limited to**, Manitoba Hydro cables, MTS cables, CPR, existing sewers, and existing watermains.

### **E8.2 Materials**

#### **E8.2.1 Backfill Material**

(a) Backfill material for backfill of shafts after hydro-excavation has been completed shall consist of sand as per City of Winnipeg Standard Construction Specification CW 2030.

### **E8.3 Construction Methods**

E8.3.1 Prior to commencement of any construction works adjacent to underground utilities, the Contractor shall use soft digging or hand excavation to expose the underground utilities.

E8.3.2 Once the elevation of the top of the pipe or duct has been determined the resulting excavation shall be backfilled with bedding sand to the elevation of the existing ground.

### **E8.4 Measurement and Payment**

E8.4.1 Soft excavation to expose underground utilities will be considered incidental to the Work. No measurement and payment will be made within this section.

## **E9. SAWCUTTING PAVEMENT**

E9.1 At the limits of excavation as directed by the Contract Administrator, the Contractor shall saw cut the existing pavement to produce a clean straight edge when excavated. The edge must be clean and straight prior to pouring new concrete pavement.

### **E9.2 Measurement and Payment**

E9.2.1 Sawcutting pavement and disposal of surplus material will be considered incidental to Clause 4.1 of CW 3110 "Pavement Removal." No measurement and payment will be made within this section.

## **E10. TREE VAULTS**

### **E10.1 Description**

E10.1.1 This Specification covers the installation of cast-in-place concrete tree vaults, including excavation, concrete tree vault curb, drainage stone and geotextile, root barrier, bond breaker, planting medium, and woodchips, as per Drawings.

### **E10.2 Materials**

#### **E10.2.1 Cast-in-Place Concrete Tree Vault Curb**

(a) Concrete Mix

- (i) Cement: Type 50 Sulphate resistant
- (ii) Maximum coarse aggregate: 20mm
- (iii) Minimum compressive strength at 28 days: 35Mpa
- (iv) Minimum cement content: 310 Kg/cu.m
- (v) Maximum water/ cement ratio: 0.45
- (vi) Class of exposure: C-2

- (vii) Maximum slump: 80mm + or -20mm
  - (viii) Air content: 5 - 8%
  - (ix) Fly ash content: maximum 15% of cementitious material
- (b) 10M longitudinal deformed bars
- E10.2.2 Bond Breaker
  - (a) Polyethylene sheet
- E10.2.3 Drainage Stone
  - (a) clean 1" riverwash stone, non-limestone material.
- E10.2.4 Geotextile
  - (a) Non-woven, in accordance with CW 3120.
- E10.2.5 Root Barrier
  - (a) DeepRoot UB 18, 450mm x 600mm panels, or approved equal as per B7.
- E10.2.6 Planting Medium
  - (a) in accordance with E14.4.
- E10.2.7 Wood Chips
  - (a) To be clean bark or wood chip mulch with chips not less than 15mm nor larger than 75mm in size and not more than 20mm thick. Mulch is to be free of leaves, branches and other extraneous matter.
- E10.3 Construction Methods
  - E10.3.1 Excavation and removal of existing sidewalk and tree wells where the new tree vaults are to be installed shall be as per E7.
  - E10.3.2 Backfill between roadway base gravel and tree vault edge with compacted granular where required.
  - E10.3.3 Supply and place geotextile in accordance with Specification CW 3120, place 150 mm depth Drainage Stone on Geotextile. Minimum 600mm Geotextile overlap.
  - E10.3.4 Construct cast-in-place Concrete Tree Vault Curb in accordance with Specification CW 3310-Portland Cement Concrete Pavement Works and Drawings.
  - E10.3.5 Install Root Barrier along roadway edge of tree pit where shown on Drawings and as directed by Contract Administrator.
  - E10.3.6 Remove and dispose of all construction related debris from tree vault prior to placing planting medium.
  - E10.3.7 Backfill with street tree Planting Medium compacting sufficiently to provide good soil consistency for tree planting and to minimize settlement.
  - E10.3.8 Ensure that the finished compacted soil level is 100 mm below bottom edge of tree cover and 25mm below bottom edge of sidewalk panel.
  - E10.3.9 Install sidewalk panels and tree covers ensuring edges are supported by tree well.
  - E10.3.10 Fill opening in tree vault cover to top of concrete with Wood Chips to leave the site safe and not a tripping hazard.
  - E10.3.11 If paving stone band was required to be removed during construction of Tree Vault, the reinstallation unit paving on concrete base shall be as per Drawings and E14.
  - E10.3.12 New concrete sidewalk to be poured, as per E12, in the areas around new Tree Vaults where necessary to clean up existing sidewalk disturbed by Work.
- E10.4 Method of Measurement and Basis of Payment

E10.4.1 Method of Measurement shall be as follows:

- (a) Tree Vaults shall be measured on a per unit basis for: "Supply and Install CIP Concrete Tree Vault (Including Excavation, Drainage Course, Filter Fabric, Root Barrier, Planting Soil, Compacted Granular as required):
  - (i) Tree Vault - Double; and
  - (ii) Tree Vault - Single" on Form B: Prices.

E10.4.2 Basis of Payment shall be as follows:

E10.4.3 Tree Vaults shall be paid for at the Contract Unit Prices. The amount to be paid for shall be the total number of units, as indicated on Form B: Prices. This price shall be payment in full for supply of all materials and performing all operations herein described and for all other items incidental to the Work included in this Specification. No separate measurement or payment will be made for drainage course, bond breaker, geotextile, planting medium, woodchips and if required the removal and reinstallation of paving band and new concrete sidewalk required to clean up the edges around the new tree vaults. All work is incidental to tree vault construction.

## **E11. PRE-CAST CONCRETE PANELS**

E11.1 Description

E11.1.1 This specification covers the supply and installation of the following pre-cast concrete products:

- (a) pre-cast concrete sidewalk panel – plain concrete finish to match concrete sidewalk finish and with inset galvanized hardware to facilitate lifting. Hardware to be covered with flush durable cover coloured to match concrete or approved equal. Pre-cast concrete panel to accommodate AASHTO HS-20 loading. Manufacturer to supply shop drawings stamped by a structural engineer.
- (b) two piece pre-cast concrete tree cover – plain concrete finish to match sidewalk finish. Two pieces with inset galvanized hardware to attach collar and to facilitate lifting. Hardware to be covered with flush durable cover coloured to match concrete or approved equal.

E11.1.2 The Work to be done by the Contractor under this Specification shall include the furnishing of all superintendence, overhead, labour, materials, equipment, tools, supplies and all other things necessary or/and incidental to the satisfactory performance and completion of all Work as hereinafter specified.

E11.2 Delivery and Storage

E11.2.1 Store units in a protected location, immediately upon arrival on the Site.

E11.2.2 Remove from Site any units which have been damaged during transportation and replace.

E11.3 Products

- (a) Pre-cast concrete sidewalk panel and two piece pre-cast concrete tree cover to be supplied by:

Barkman Concrete Ltd.  
909 Gateway Road  
Winnipeg, Manitoba, R3K 3L1  
Contact: August Weins  
T (204) 667-3310

E11.4 Materials

- (a) All installation hardware, welding, and adhesives shall be incidental to the unit prices bid.

E11.5 Installation

- (a) Pre-cast Concrete Sidewalk Panel shall be installed by the contractor in locations and indicated on the Contract drawings.
- (b) Two piece pre-cast concrete tree cover shall be installed by the contractor in locations and indicated on the Contract drawings.

**E11.6 Method of Measurement and Basis of Payment**

**E11.6.1 Method of Measurement shall be as follows:**

- (a) Pre-Cast Concrete Panels will be measured on a per unit basis for the following items:
  - (i) "Supply and Install Pre-cast Concrete Sidewalk Panels (1370x1370x152mm)";  
and
  - (ii) "Supply and Install two-piece Pre-cast Concrete Tree Cover (1370x1800x152mm)" on Form B: Prices.

**E11.6.2 Basis of Payment shall be as follows:**

- (a) Pre-Cast Concrete Panels will be paid for at the Contract Unit Prices. The amount to be paid for shall be the total number of units, as indicated on Form B: Prices. This price shall be full payment for supplying all labour, equipment and materials, and performing all operations herein described and all other items incidental to the Work and as accepted by the Contract Administrator.

**E12. CONCRETE SIDEWALK**

**E12.1 Description**

**E12.1.1** This specification will cover this installation of 100mm depth concrete sidewalk as identified on the Drawings, including areas under unit paving if was affected during construction of tree vaults.

**E12.2 Materials**

**E12.2.1** Concrete mix design shall comply with Clause 6.2a) of CW 3310

**E12.2.2** All other materials as per Clause 5 of CW 3310.

**E12.3 Construction Methods**

**E12.3.1** Construction as per Contract Drawings and as per CW 3310 and CW3325.

**E12.3.2** Blockouts, if required, for all paving patterns and paving fields in sidewalk to be constructed to match existing. All forming is incidental to the unit price Bid for this specification.

**E12.3.3** Thickened edge of sidewalk will be incidental to the unit price Bid for the concrete sidewalk.

**E12.4 Method of Measurement and Basis of Payment**

**E12.4.1 Method of Measurement shall be as follows:**

- (a) Concrete Sidewalk will be measured on a square meter basis for "Supply and Install 100 mm Concrete Sidewalk" on Form B: Prices.
- (b) No measurement shall be made for Concrete Sidewalk installed as repair work around newly installed tree vaults, nor concrete sidewalk installed under unit paving if required, as this shall be incidental to E10.

**E12.4.2 Basis of Payment shall be as follows:**

- (a) Concrete Sidewalk will be paid for at the Contract Unit Prices. The amount to be paid for shall be the total number of units, as indicated on Form B: Prices. This price shall be full payment for supplying all labour, equipment and materials, and performing all

operations herein described and all other items incidental to the Work and as accepted by the Contract Administrator.

- (b) No payment shall be made for Concrete Sidewalk installed as repair work around newly installed tree vaults, nor concrete sidewalk installed under unit paving if required, as this shall be incidental to E10.

### **E13. CONCRETE CURB RAMP**

#### **E13.1 Description**

- E13.1.1 This specification will cover supply and installation of all labour, materials, equipment and services necessary for the supply and installation of a concrete curb ramp as shown on Drawings.

#### **E13.2 Materials:**

- (a) As per the City of Winnipeg Specifications CW 3235, CW 3310, and 3325.

#### **E13.3 Construction Methods:**

- (a) As per the City of Winnipeg Specifications CW 3235, CW 3310, and 3325, and Drawing SD-229C.

#### **E13.4 Method of Measurement and Basis of Payment**

##### **E13.4.1 Method of Measurement shall be as follows:**

- (a) Concrete Curb Ramp shall be measured on a lump sum basis for "Supply and Install concrete curb ramp" on Form B: Prices.

##### **E13.4.2 Basis of Payment shall be as follows:**

- (a) Concrete Curb Ramp will be paid for at the Contract Unit Prices. The amount to be paid for shall be the total number of units, as indicated on Form B: Prices. This price shall be full payment for supplying all labour, equipment and materials, and performing all operations herein described and all other items incidental to the Work and as accepted by the Contract Administrator.

### **E14. UNIT PAVING**

#### **E14.1 Description**

##### **E14.1.1 Further to CW 3335 this Specification shall cover the:**

- (a) installation of stockpiled unit pavers;
- (b) supply and installation of sand setting bed;
- (c) supply and installation of grout.

##### **E14.1.2 The Work to be done by the Contractor under this Specification shall include the furnishing of all superintendence, overhead, labour, materials, equipment, tools, supplies and all other things necessary or and incidental to the satisfactory performance and completion of all Work as hereinafter specified.**

##### **E14.1.3 Referenced Standard Construction Specifications**

- (a) CW 3330 – Installation of Interlocking Paving Stones
- (b) CW 3335 – Installation of Interlocking Paving Stones on a Lean Concrete Base

#### **E14.2 Materials**

##### **E14.2.1 Concrete Pavers**

- (a) If replacement pavers are required because of damage from removal or during construction, the following is their description:

- (i) Holland Stone – Charcoal, Size: 105mm x 210mm x 57mm depth.
- (ii) Double Holland Stone – Natural, Size: 210mm x 210mm x 57mm depth.

(b) There is no additional payment for replacement pavers.

E14.2.2 Sand:

- (a) Clean brick sand as joint filler;
- (b) Clean brick sand as minimum 13mm depth setting bed.

E14.2.3 Grout:

- (a) Grout as specified hereinafter shall be used for grouting paving stone under 50mm x 50mm in size. The grout shall have a compressive strength of 25 MPA at 28 days, determined on 50 mm cubes stored and tested in accordance with ASTM C109, and shall consist of normal Portland cement, sand and water;
- (b) The water-cement ratio shall be kept in the range of 0.45 to 0.55;
- (c) The grout shall have between 3% and 5% entrained air;
- (d) Acryl-Stik or approved equal in accordance with B5 Substitutes, to be used in grout at approximately 4 litres Acryl-Stik to 3 litres water;
- (e) Admixtures to be used in the grout shall be supplied in accordance with the requirements of the City of Winnipeg Standard CW 3310;
- (f) The grout shall be of a consistency suitable for the application intended as approved by the Contract Administrator;
- (g) The Contractor shall provide the Contract Administrator with a mix design statement certifying the constituent materials and mix proportions that will be used in the grout for approval prior to construction.

E14.3 Construction Methods

E14.3.1 Contractor to verify the exact dimensions of pavers prior to construction of block outs in concrete sidewalk. Curves for paving bands to be formed in continuous arc and bulkheads provided for daily pours across curves. Curves are not to be used as joints for concrete sidewalk.

- (a) Install concrete sidewalk and blockouts as specified on Drawings. Interlocking paving stones shall be installed in block out in concrete sidewalk as per the Drawings;
- (b) Install sand bed to minimum 13 mm depth as specified on Drawings;
- (c) Do not compact setting bed prior to installation of pavers;
- (d) Spread only sufficient area which can be covered with pavers same day;
- (e) Lay pavers on sand bed hand tight;
- (f) In areas where pavers are to be grouted in place clean existing concrete, install grout bed and then place pavers on grout;
- (g) Grout between pavers as required ensuring stability;
- (h) Remove adjacent pavers in bands as required to ensure that bricks do not require cutting to fit existing paving pattern;
- (i) Where paving pattern is interrupted by vertical structural elements pavers must be sawcut and fit true and hand tight;
- (j) Commence installation of pavers against edge to obtain straightest possible course for installation;
- (k) Pavers shall be cut with a saw only, to obtain true even undamaged edges. Chipped pavers are unacceptable;
- (l) Crews shall Work on installed pavers, not on sand layer;

- (m) Spread and fine grade brick sand over paving surface and sweep into joints, in several directions. Sand is incidental to the price for supply and installation of pavers;
- (n) Compact pavers with vibratory plate compactor having mass of at least 113kg. Compaction is incidental to the price for supply and installation of paving stone;
- (o) Sweep remaining sand over all paving areas and remove from Site;
- (p) Replace at no extra cost all whole or cut stones marked as unacceptable;
- (q) Remove cracked, chipped, broken or otherwise damaged paving materials from Site immediately;
- (r) Upon completion, clean in accordance with manufacturer's recommendations.

E14.3.2 If cutting of existing concrete sidewalk is required, this shall be incidental to the pay item described in this specification.

#### E14.4 Method of Measurement and Basis of Payment

E14.4.1 Method of Measurement shall be as follows:

- (a) No measurement will be made for Unit Paving as these items are incidental to E10;

E14.4.2 Basis of Payment shall be as follows:

- (a) No payment will be made for Unit Paving as these items are incidental to E10.

### **E15. PLANTING MEDIUM**

E15.1 Description

E15.1.1 Further to CW 3540, this Specification covers the supply and placing of planting medium for street tree planting.

E15.2 Materials

E15.2.1 In accordance with the requirements for topsoil specified under Specification CW 3540 – Topsoil and Finish Grading for Establishment of Turf Areas, except organic matter shall be in the range of 5 to 10%

E15.2.2 The Contract Administrator reserves the right to reject planting soil not conforming to the requirements of the Specifications.

E15.3 Construction Methods

E15.3.1 Prior to placing planting medium in tree vaults, verify the following:

- (a) All construction debris, broken concrete, and excess granular material has been removed.
- (b) All geotextiles, root barriers, and drainage are installed in accordance with Drawings.

E15.3.2 Place planting medium.

E15.3.3 Contract Administrator will inspect planting medium in place and determine acceptance of material, depth of planting and finish grading.

E15.3.4 Dispose of unused materials off site in accordance with CW 1130.

E15.4 Method of Measurement and Basis of Payment

E15.4.1 Method of Measurement shall be as follows:

- (a) No measurement will be made for Planting Medium as these items are incidental to E10;

E15.4.2 Basis of Payment shall be as follows:

- (a) No payment will be made for Planting Medium as these items are incidental to E10.