



**THE CITY OF WINNIPEG**

# **BID OPPORTUNITY**

**BID OPPORTUNITY NO. 582-2008**

**KIRKBRIDGE PARK – PHASE 3 SITE DEVELOPMENT**

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## **PART B - BIDDING PROCEDURES**

### **B1. CONTRACT TITLE**

B1.1 KIRKBRIDGE PARK – PHASE 3 SITE DEVELOPMENT

### **B2. SUBMISSION DEADLINE**

B2.1 The Submission Deadline is 12:00 noon Winnipeg time, July 31, 2008

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

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

### **B3. ENQUIRIES**

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

B3.2 If the Bidder finds errors, discrepancies or omissions in the Bid Opportunity, or is unsure of the meaning or intent of any provision therein, the Bidder shall notify the Contract Administrator of the error, discrepancy or omission, or request a clarification as to the meaning or intent of the provision at least five (5) Business Days prior to the Submission Deadline.

B3.3 Responses to enquiries which, in the sole judgment of the Contract Administrator, require a correction to or a clarification of the Bid Opportunity will be provided by the Contract Administrator to all Bidders by issuing an addendum.

B3.4 Responses to enquiries which, in the sole judgment of the Contract Administrator, do not require a correction to or a clarification of the Bid Opportunity will be provided by the Contract Administrator only to the Bidder who made the enquiry.

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

### **B4. ADDENDA**

B4.1 The Contract Administrator may, at any time prior to the Submission Deadline, issue addenda correcting errors, discrepancies or omissions in the Bid Opportunity, or clarifying the meaning or intent of any provision therein.

B4.2 The Contract Administrator will issue each addendum at least two (2) Business Days prior to the Submission Deadline, or provide at least two (2) Business Days by extending the Submission Deadline.

B4.2.1 Addenda will be available on the Bid Opportunities page at The City of Winnipeg, Corporate Finance, Materials Management Division internet site at <http://www.winnipeg.ca/matmgt>.

B4.2.2 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 regularly and shortly before the Submission Deadline, as may be amended by addendum.

B4.3 The Bidder shall acknowledge receipt of each addendum in Paragraph 10 of Form A: Bid. Failure to acknowledge receipt of an addendum may render a Bid non-responsive.

### **B5. SUBSTITUTES**

B5.1 The Work is based on the Plant, Materials and methods specified in the Bid Opportunity.

- B5.2 Substitutions shall not be allowed unless application has been made to and prior approval has been granted by the Contract Administrator in writing.
- B5.3 Requests for approval of a substitute will not be considered unless received in writing by the Contract Administrator at least five (5) Business Days prior to the Submission Deadline.
- B5.4 The Bidder shall ensure that any and all requests for approval of a substitute:
- (a) provide sufficient information and details to enable the Contract Administrator to determine the acceptability of the Plant, Material or method as either an approved equal or alternative;
  - (b) identify any and all changes required in the applicable Work, and all changes to any other Work, which would become necessary to accommodate the substitute;
  - (c) identify any anticipated cost or time savings that may be associated with the substitute;
  - (d) certify that, in the case of a request for approval as an approved equal, the substitute will fully perform the functions called for by the general design, be of equal or superior substance to that specified, is suited to the same use and capable of performing the same function as that specified and can be incorporated into the Work, strictly in accordance with the proposed work schedule and the dates specified in the Supplemental Conditions for Substantial Performance and Total Performance;
  - (e) certify that, in the case of a request for approval as an approved alternative, the substitute will adequately perform the functions called for by the general design, be similar in substance to that specified, is suited to the same use and capable of performing the same function as that specified and can be incorporated into the Work, strictly in accordance with the proposed work schedule and the dates specified in the Supplemental Conditions for Substantial Performance and Total Performance.
- B5.5 The Contract Administrator, after assessing the request for approval of a substitute, may in his sole discretion grant approval for the use of a substitute as an “approved equal” or as an “approved alternative”, or may refuse to grant approval of the substitute.
- B5.6 The Contract Administrator will provide a response in writing, at least two (2) Business Days prior to the Submission Deadline, only to the Bidder who requested approval of the substitute.
- B5.6.1 The Bidder requesting and obtaining the approval of a substitute shall be entirely responsible for disseminating information regarding the approval to any person or persons he wishes to inform.
- B5.7 If the Contract Administrator approves a substitute as an “approved equal”, any Bidder may use the approved equal in place of the specified item.
- B5.8 If the Contract Administrator approves a substitute as an “approved alternative”, any Bidder bidding that approved alternative may base his Total Bid Price upon the specified item but may also indicate an alternative price based upon the approved alternative. Such alternatives will be evaluated in accordance with B14.
- B5.9 No later claim by the Contractor for an addition to the Total Bid Price because of any other changes in the Work necessitated by the use of an approved equal or an approved alternative will be considered.

## **B6. BID COMPONENTS**

- B6.1 The Bid shall consist of the following components:
- (a) Form A: Bid;
  - (b) Form B: Prices;
  - (c) Bid Security
    - (i) Form G1: Bid Bond and Agreement to Bond, or  
Form G2: Irrevocable Standby Letter of Credit and Undertaking, or

a certified cheque or draft;

- B6.2 Further to B6.1, the Bidder should include the written correspondence from the Contract Administrator approving a substitute in accordance with B5.
- B6.3 All components of the Bid shall be fully completed or provided, and submitted by the Bidder no later than the Submission Deadline, with all required entries made clearly and completely, to constitute a responsive Bid.
- B6.4 The Bid shall be submitted enclosed and sealed in an envelope clearly marked with the Bid Opportunity number and the Bidder's name and address.
- B6.4.1 Samples or other components of the Bid which cannot reasonably be enclosed in the envelope may be packaged separately, but shall be clearly marked with the Bid Opportunity number, the Bidder's name and address, and an indication that the contents are part of the Bidder's Bid.
- B6.5 Bidders are advised not to include any information/literature except as requested in accordance with B6.1.
- B6.6 Bidders are advised that inclusion of terms and conditions inconsistent with the Bid Opportunity document, including the General Conditions, may result in the Bid being determined to be non-responsive.
- B6.7 Bids submitted by facsimile transmission (fax) or internet electronic mail (e-mail) will not be accepted.
- B6.8 Bids shall be submitted to:  
The City of Winnipeg  
Corporate Finance Department  
Materials Management Division  
185 King Street, Main Floor  
Winnipeg MB R3B 1J1

**B7. BID**

- B7.1 The Bidder shall complete Form A: Bid, making all required entries.
- B7.2 Paragraph 2 of Form A: Bid shall be completed in accordance with the following requirements:
- (a) if the Bidder is a sole proprietor carrying on business in his own name, his name shall be inserted;
  - (b) if the Bidder is a partnership, the full name of the partnership shall be inserted;
  - (c) if the Bidder is a corporation, the full name of the corporation shall be inserted;
  - (d) if the Bidder is carrying on business under a name other than his own, the business name and the name of every partner or corporation who is the owner of such business name shall be inserted.
- B7.2.1 If a Bid is submitted jointly by two or more persons, each and all such persons shall identify themselves in accordance with B7.2.
- B7.3 In Paragraph 3 of Form A: Bid, the Bidder shall identify a contact person who is authorized to represent the Bidder for purposes of the Bid.
- B7.4 Paragraph 12 of Form A: Bid shall be signed in accordance with the following requirements:
- (a) if the Bidder is a sole proprietor carrying on business in his own name, it shall be signed by the Bidder;
  - (b) if the Bidder is a partnership, it shall be signed by the partner or partners who have authority to sign for the partnership;

- (c) if the Bidder is a corporation, it shall be signed by its duly authorized officer or officers and the corporate seal, if the corporation has one, 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.

B7.4.1 The name and official capacity of all individuals signing Form A: Bid should be printed below such signatures.

B7.5 If a Bid is submitted jointly by two or more persons, the word "Bidder" shall mean each and all such persons, and the undertakings, covenants and obligations of such joint Bidders in the Bid and the Contract, when awarded, shall be both joint and several.

## **B8. PRICES**

B8.1 The Bidder shall state a price in Canadian funds for each item of the Work identified on Form B:Prices.

B8.2 Prices from Non-Resident Bidders are subject to a Non-Resident Withholding Tax pursuant to the Income Tax Act (Canada).

B8.3 The quantities listed on Form B: Prices are to be considered approximate only. The City will use said quantities for the purpose of comparing bids.

B8.4 The quantities for which payment will be made to the Contractor are to be determined by the Work actually performed and completed by the Contractor, to be measured as specified in the applicable Specifications.

## **B9. QUALIFICATION**

B9.1 The Bidder shall:

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

B9.2 The Bidder and any proposed Subcontractor (for the portion of the Work proposed to be subcontracted to them) shall:

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

B9.3 The Bidder and/or any proposed Subcontractor (for the portion of the Work proposed to be subcontracted to them) shall:

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

B9.4 Further to B9.3(c), the Bidder shall, within three (3) Business Days of a request by the Contract Administrator, provide proof satisfactory to the Contract Administrator that the Bidder/Subcontractor has a workplace safety and health program meeting the requirements of The Workplace Safety and Health Act (Manitoba), by providing:

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

B9.5 The Bidder shall submit, within three (3) Business Days of a request by the Contract Administrator, proof satisfactory to the Contract Administrator of the qualifications of the Bidder and of any proposed Subcontractor.

B9.6 The Bidder shall provide, on the request of the Contract Administrator, full access to any of the Bidder's equipment and facilities to confirm, to the Contract Administrator's satisfaction, that the Bidder's equipment and facilities are adequate to perform the Work.

## **B10. BID SECURITY**

B10.1 The Bidder shall provide bid security in the form of:

- (a) a bid bond, in the amount of at least ten percent (10%) of the Total Bid Price, and agreement to bond of a company registered to conduct the business of a surety in Manitoba, in the form included in the Bid Submission (Form G1: Bid Bond and Agreement to Bond); or
- (b) an irrevocable standby letter of credit, in the amount of at least ten percent (10%) of the Total Bid Price, and undertaking issued by a bank or other financial institution registered to conduct business in Manitoba and drawn on a branch located in Winnipeg, in the form included in the Bid Submission (Form G2: Irrevocable Standby Letter of Credit and Undertaking); or
- (c) a certified cheque or draft payable to "The City of Winnipeg", in the amount of at least fifty percent (50%) of the Total Bid Price, drawn on a bank or other financial institution registered to conduct business in Manitoba.

B10.1.1 If the Bidder submits alternative bids, the bid security shall be in the amount of the specified percentage of the highest Total Bid Price submitted.

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

B10.1.3 The Bidder shall sign the Bid Bond.

B10.1.4 The Surety shall sign and affix its corporate seal on the Bid Bond and the Agreement to Bond.

B10.2 The bid security of the successful Bidder and the next two lowest evaluated responsive and responsible Bidders will be released by the City when a Contract for the Work has been duly executed by the successful Bidder and the performance security furnished as provided herein. The bid securities of all other Bidders will be released when a Contract is awarded.

B10.2.1 Where the bid security provided by the successful Bidder is in the form of a certified cheque or draft pursuant to B10.1(c), it will be deposited and retained by the City as the performance security and no further submission is required.

B10.2.2 The City will not pay any interest on certified cheques or drafts furnished as bid security or subsequently retained as performance security.

B10.3 The bid securities of all Bidders will be released by the City as soon as practicable following notification by the Contract Administrator to the Bidders that no award of Contract will be made pursuant to the Bid Opportunity.



## **B11. OPENING OF BIDS AND RELEASE OF INFORMATION**

- B11.1 Bids will be opened publicly, after the Submission Deadline has elapsed, in the office of the Corporate Finance Department, Materials Management Division, or in such other office as may be designated by the Manager of Materials.
- B11.1.1 Bidders or their representatives may attend.
- B11.2 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 internet site at <http://www.winnipeg.ca/matmgt>.
- B11.3 After award of Contract, the name(s) of the successful Bidder(s) and the Contract Amount(s) will be available on the Closed Bid Opportunities (or Public/Posted Opening & Award Results) page at The City of Winnipeg, Corporate Finance, Materials Management Division internet site at <http://www.winnipeg.ca/matmgt>.
- B11.4 The Bidder is advised that any information contained in any Bid may be released if required by City policy or procedures, by The Freedom of Information and Protection of Privacy Act (Manitoba), by other authorities having jurisdiction, or by law.

## **B12. IRREVOCABLE BID**

- B12.1 The Bid(s) submitted by the Bidder shall be irrevocable for the time period specified in Paragraph 11 of Form A: Bid.
- B12.2 The acceptance by the City of any Bid shall not release the Bids of the next two lowest evaluated responsive Bidders and these Bidders shall be bound by their Bids on such Work until a Contract for the Work has been duly executed and the performance security furnished as herein provided, but any Bid shall be deemed to have lapsed unless accepted within the time period specified in Paragraph 11 of Form A: Bid.

## **B13. WITHDRAWAL OF BIDS**

- B13.1 A Bidder may withdraw his Bid without penalty by giving written notice to the Manager of Materials at any time prior to the Submission Deadline.
- B13.1.1 Notwithstanding C23.3, the time and date of receipt of any notice withdrawing a Bid shall be the time and date of receipt as determined by the Manager of Materials.
- B13.1.2 The City will assume that any one of the contact persons named in Paragraph 3 of Form A: Bid or the Bidder's authorized representatives named in Paragraph 12 of Form A: Bid, and only such person, has authority to give notice of withdrawal.
- B13.1.3 If a Bidder gives notice of withdrawal prior to the Submission Deadline, the Manager of Materials will:
- (a) retain the Bid until after the Submission Deadline has elapsed;
  - (b) open the Bid to identify the contact person named in Paragraph 3 of Form A: Bid and the Bidder's authorized representatives named in Paragraph 12 of Form A: Bid; and
  - (c) if the notice has been given by any one of the persons specified in B13.1.3(b), declare the Bid withdrawn.
- B13.2 A Bidder who withdraws his Bid after the Submission Deadline but before his Bid has been released or has lapsed as provided for in B12.2 shall be liable for such damages as are imposed upon the Bidder by law and subject to such sanctions as the Chief Administrative Officer considers appropriate in the circumstances. The City, in such event, shall be entitled to all rights and remedies available to it at law, including the right to retain the Bidder's bid security.

## **B14. EVALUATION OF BIDS**

- B14.1 Award of the Contract shall be based on the following bid evaluation criteria:
- (a) compliance by the Bidder with the requirements of the Bid Opportunity (pass/fail);
  - (b) qualifications of the Bidder and the Subcontractors, if any, pursuant to B9 (pass/fail);
  - (c) Total Bid Price;
  - (d) economic analysis of any approved alternative pursuant to B5.
- B14.2 Further to B14.1(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.
- B14.3 Further to B14.1(b), the Award Authority shall reject any Bid submitted by a Bidder who does not demonstrate, in his Bid or in other information required to be submitted, that he is responsible and qualified.
- B14.4 Further to B14.1(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 item(s) 18 and 19, in the order listed, until a Total Bid Price within the budgetary provision is achieved.
- B14.4.1 If there is any discrepancy between the Total Bid Price written in figures, the Total Bid Price written in words and the sum of the quantities multiplied by the unit prices for each item, the sum of the quantities multiplied by the unit prices for each item shall take precedence.
- B14.4.2 Further to B14.1(a), in the event that a unit price is not provided on Form B: Prices, the City will determine the unit price by dividing the Amount (extended price) by the approximate quantity, for the purposes of evaluation and payment.

## **B15. AWARD OF CONTRACT**

- B15.1 The City will give notice of the award of the Contract or will give notice that no award will be made.
- B15.2 The City will have no obligation to award a Contract to a Bidder, even though one or all of the Bidders are determined to be responsible and qualified, and the Bids are determined to be responsive.
- B15.2.1 Without limiting the generality of B15.2, the City will have no obligation to award a Contract where:
- (a) the prices exceed the available City funds for the Work;
  - (b) the prices are materially in excess of the prices received for similar work in the past;
  - (c) the prices are materially in excess of the City's cost to perform the Work, or a significant portion thereof, with its own forces;
  - (d) only one Bid is received; or
  - (e) in the judgment of the Award Authority, the interests of the City would best be served by not awarding a Contract.

**B15.3** Where an award of Contract is made by the City, the award shall be made to the responsible and qualified Bidder submitting the lowest evaluated responsive Bid, in accordance with B14.

**B15.3.1** Following the award of contract, a Bidder will be provided with information related to the evaluation of his Bid upon written request to the Contract Administrator.

## **PART C - GENERAL CONDITIONS**

### **C0. GENERAL CONDITIONS**

C0.1 The *General Conditions for Construction* (Revision 2006 12 15) are applicable to the Work of the Contract.

C0.1.1 The *General Conditions for Construction* are available on the Information Connection page at The City of Winnipeg, Corporate Finance, Materials Management Division internet site 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 landscaping and lighting.

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

- (a) Removal of existing weeds
- (b) Site grading
- (c) Installation of limestone path
- (d) Supply and installation of pole lights
- (e) Supply, installation and maintenance of seeded grass, trees, shrubs and perennials
- (f) Supply and installation of wooden fence and signage.

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

D3.1 The Contract Administrator is Cynthia Cohlmeier Landscape Architect, represented by:  
Cynthia Cohlmeier  
President  
359 McDermot Avenue, Winnipeg MB R3A 0A6  
Telephone No. (204) 943-1394  
Facsimile No. (204) 942-4426

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

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

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

#### **D5. NOTICES**

D5.1 Except as provided for in C23.2.2, all notices, requests, nominations, proposals, consents, approvals, statements, authorizations, documents or other communications to the Contractor shall be sent to the address or facsimile number identified by the Contractor in Paragraph 2 of Form A: Bid.

D5.2 All notices, requests, nominations, proposals, consents, approvals, statements, authorizations, documents or other communications to the City, except as expressly otherwise required in D5.3, D5.4 or elsewhere in the Contract, shall be sent to the attention of the Contract Administrator at the address or facsimile number identified in D3.1.

D5.3 Notwithstanding C21.3, 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 Financial Officer  
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  
Internal Services Department  
Legal Services Division  
Attn: City Solicitor  
185 King Street, 3rd Floor  
Winnipeg MB R3B 1J1

Facsimile No.: (204) 947-9155

## **D6. FURNISHING OF DOCUMENTS**

- D6.1 Upon award of the Contract, the Contractor will be provided with five (5) complete sets of the Bid Opportunity. If the Contractor requires additional sets of the Bid Opportunity, they will be supplied to him at cost.

## **SUBMISSIONS**

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

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

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

- D8.1 The Contractor shall provide the Contract Administrator with a Safe Work Plan at least five (5) Business Days prior to the commencement of any Work on the Site but in no event later than the date specified in C4.1 for the return of the executed Contract.
- D8.2 The Safe Work Plan 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 internet site 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) automobile liability insurance for owned automobiles used for or in connection with the Work in the amount of at least two million dollars (\$2,000,000.00) at all times during the performance of the Work and until the date of Total Performance;

D9.2 Deductibles shall be borne by the Contractor.

D9.3 The Contractor shall provide the City Solicitor with a certificate(s) of insurance, in a form satisfactory to the City Solicitor, at least two (2) Business Days prior to the commencement of any Work but in no event later than the date specified in C4.1 for the return of the executed Contract.

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

## **D10. PERFORMANCE SECURITY**

D10.1 The Contractor shall provide and maintain performance security until the expiration of the warranty period in the form of:

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

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

D10.2 The Contractor shall provide the City Solicitor with the required performance security within seven (7) Calendar Days of notification of the award of the Contract by way of letter of intent and prior to the commencement of any Work on the Site but in no event later than the date specified in C4.1 for the return of the executed Contract.

## **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 the date specified in C4.1 for the return of the executed Contract.

## **SCHEDULE OF WORK**

### **D12. COMMENCEMENT**

D12.1 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.

D12.2 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;
- (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.

D12.3 The Contractor shall commence the Work on the Site within seven (7) Working Days of receipt of the letter of intent.

D12.4 The City intends to award this Contract by August 8, 2008.

D12.4.1 If the actual date of award is later than the intended date, the dates specified for Commencement, Substantial Performance, and Total Performance will be adjusted by the difference between the aforementioned intended and actual dates.

### **D13. WORKING DAYS**

D13.1 Further to C1.1(gg), the Contract Administrator's determination of whether or not atmospheric and Site conditions are such that a Working Day is deemed to have elapsed may be based at one time on one type of work while at another time a Working Day may be based on another type of work. When more than one type of major work is involved, the quantity of equipment that must be able to work in order to meet the requirements of a Working Day may vary considerably from that specified in the General Conditions.

D13.2 In the event that incidental work is behind schedule which, in the opinion of the Contract Administrator, should have been or could have been carried out by the Contractor in conjunction with or immediately following work of a major type, the City hereby reserves the right to charge Working Days on the incidental work until such time as it is up to schedule.

D13.3 When the major type of work involves restoration of the site to the condition it was prior to rainfall, Working Days shall not be charged.

D13.4 The Contract Administrator will furnish the Contractor with a daily record for each major type of work showing various information concerning the equipment, the time it worked, could have worked and Working Days charged. This report is to be signed each day by an authorized representative of the Contractor.

### **D14. SUBSTANTIAL PERFORMANCE**

D14.1 The Contractor shall achieve Substantial Performance within twenty (20) consecutive Working Days of the commencement of the Work as specified in D12.

D14.2 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.

D14.3 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.

### **D15. TOTAL PERFORMANCE**

D15.1 The Contractor shall achieve Total Performance within thirty (30) consecutive Working Days of the commencement of the Work as specified in D12.



D15.2 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.

D15.3 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.

#### **D16. LIQUIDATED DAMAGES**

D16.1 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 Calendar Day for each and every Calendar Day following the day fixed herein for Substantial Performance during which such failure continues.

D16.2 The amount specified for liquidated damages in D16.1 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.

D16.3 The City may reduce any payment to the Contractor by the amount of any liquidated damages assessed.

#### **D17. SCHEDULED MAINTENANCE**

D17.1 The Contractor shall perform the following scheduled maintenance in the manner and within the time periods required by the Specifications:

- (a) Maintenance of seeded grass as specified in CW3510-R7;
- (b) Maintenance of trees and shrubs as specified in E13;

D17.2 Determination of Substantial Performance and Total Performance shall be exclusive of scheduled maintenance identified herein. All scheduled maintenance shall be completed prior to the expiration of the warranty period. Where the scheduled maintenance cannot be completed during the warranty period, the warranty period shall be extended for such period of time as it takes the Contractor to complete the scheduled maintenance.

#### **CONTROL OF WORK**

##### **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 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).

## **MEASUREMENT AND PAYMENT**

### **D20. PAYMENT**

D20.1 Further to C12, the City may at its option pay the Contractor by direct deposit to the Contractor's banking institution.

## **WARRANTY**

### **D21. WARRANTY**

D21.1 Notwithstanding C13.2, the warranty period shall begin on the date of Total Performance and shall expire one (1) year thereafter, except where longer warranty periods are specified in the respective Specification sections, unless extended pursuant to C13.2.1 or C13.2.2, in which case it shall expire when provided for thereunder.

D21.1.1 For the purpose of Performance Security, the warranty period shall be one (1) year.

D21.2 Notwithstanding C13.2, the Contract Administrator may permit the warranty period for a portion or portions of the Work to begin prior to the date of Total Performance if a portion of the Work cannot be completed because of unseasonable weather or other conditions reasonably beyond the control of the Contractor but that portion does not prevent the balance of the Work from being put to its intended use.

D21.2.1 In such case, the date specified by the Contract Administrator for the warranty period to begin shall be substituted for the date specified in C13.2 for the warranty period to begin.

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

KNOW ALL MEN BY THESE PRESENTS THAT

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

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

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

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

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

BID OPPORTUNITY NO. 582-2008

KIRKBRIDGE PARK – PHASE 3 SITE DEVELOPMENT

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  
Internal Services Department  
Legal Services Division  
185 King Street, 3rd Floor  
Winnipeg MB R3B 1J1

RE: PERFORMANCE SECURITY - BID OPPORTUNITY NO. 582-2008  
  
KIRKBRIDGE PARK – PHASE 3 SITE DEVELOPMENT

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

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

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

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

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

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

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

Partial drawings are permitted.

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

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

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

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

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

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

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

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

This credit is subject to the Uniform Customs and Practice for Documentary Credit (1993 Revision), International Chamber of Commerce Publication Number 500.

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

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

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



## PART E - SPECIFICATIONS

### GENERAL

#### E1. APPLICABLE SPECIFICATIONS AND DRAWINGS

- E1.1 These Specifications shall apply to the Work.
- E1.2 *The City of Winnipeg Standard Construction Specifications* in its entirety, whether or not specifically listed on Form B: Prices, shall apply to the Work.
- E1.2.1 *The City of Winnipeg Standard Construction Specifications* is available on the Information Connection page at The City of Winnipeg, Corporate Finance, Materials Management Division internet site at <http://www.winnipeg.ca/matmgt>.
- 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>
L-1	Site Plan
L-2	Grading/Drainage Layout
L-3	Layout Plan
L-4	Layout Plan Two
L-5	Site Details

#### 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. PROTECTION OF THE SURVEY INFRASTRUCTURE

- E3.1 Notwithstanding Clause 4 "Protection of Survey Bars" of the Standard Provisions:
- E3.1.1 Current Legislation, The Surveys Act, places the onus on those undertaking construction to protect the Survey Infrastructure from damage as a result of their activity.
- E3.2 Further to C:6.26, at least 72 hours prior to the commencement of the On-Site work the Contractor shall contact the City of Winnipeg, Geomatics Services Branch at 986-4826 (8:00 a.m. to 4:00 p.m., Monday to Friday, excluding holidays) to obtain underground clearance. Geomatics Services will locate and mark all known outline survey monuments and geodetic control monuments and confirm the physical condition of those monuments upon completion of construction, at no cost to the Contractor.
- E3.3 Where a survey post, bar or control monument lies in the line of the proposed work and must be disturbed, the Contractor shall provide the Contract Administrator with 48 hours notice to permit referencing for future replacement, at no cost to the Contractor. Failure to provide the specified notice shall result in the Contractor paying for all costs associated with replacing or relocating the disturbed outline survey monuments and geodetic control monuments.
- E3.4 Outline survey monuments and geodetic control monuments at or adjacent to the Site not in the line of the proposed construction that are damaged or disturbed by the Contractor shall be replaced or relocated by the City or its agent and all associated costs shall be paid for by the Contractor. An approximate estimate of the costs involved to restore a legal survey monument is \$1,000 per bar and \$3,000 per control monument. Contractors must ensure their landscaping



and other subcontractors are aware of this clearance procedure and the potential restoration costs.

- E3.5 Where possible, amounts owed to the City in accordance with the above will be deducted from any payments to be made by the City to the Contractor.

#### **E4. LAYOUT OF WORK**

- E4.1 The Contractor shall 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. 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 Contract Administrator shall be borne entirely by the Contractor, as well as the cost of replacing any disturbed stakes or marks.

- E4.2 All layout Work shall be inspected and approved by the Contract Administrator prior to construction.

- E4.3 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.

- E4.4 All proposed tree planting locations shall be staked with minimum 610 mm height vertical markers, and be approved by the Contract Administrator prior to excavating the tree pit.

- E4.5 The Contractor shall locate and protect all underground utilities prior to commencing construction.

#### **E5. EXISTING SURVEY INFORMATION**

- E5.1 The Site plan is based on drawing data supplied by the City of Winnipeg and a survey supplied by Barnes and Duncan Land Surveying and Geomatics. These are available from the Contract Administrator.

#### **E6. SITE ACCESS**

- E6.1 Access to the Work areas shall be the parking lot on Marrington Road. The Contractor may access the Site from other locations, only if authorized by the Contract Administrator.

#### **E7. SITE GRADING**

- E7.1 Description

- E7.1.1 This Specification shall cover the excavation and installation of fill for areas as indicated on the Grading/Drainage Layout, L-2 accordance with CW 3170-R3, Earthwork and Grading.

- E7.1.2 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 for and incidental to the satisfactory performance and completion of all Work as specified herein and in accordance with CW 3170-R3.

- E7.2 Materials

- E7.2.1 All materials shall conform to CW-3170-R3.

- E7.3 Equipment

E7.3.1 All equipment to conform to CW 3170-R3.

E7.4 Construction Method

E7.4.1 Rough grade to patterns and elevations as indicated on the Drawings allowing for installation of materials specified and in accordance with CW-3170-R3 Earthwork and Grading.

E7.5 Method of Measurement

E7.5.1 Site grading will be measured on a Lump Sum Basis, as accepted by the Contract.

E7.6 Basis for Payment

E7.6.1 Site grading will be paid for at the Contract Lump Sum Price for "Site Grading", which price shall be payment in full for supplying all materials and performing all operations herein describe and all of the items incidental to the Work included in this Specification.

## **E8. CRUSHED LIMESTONE PATH**

E8.1 General Description

E8.1.1 This Specification shall cover the construction of crushed limestone paths.

E8.1.2 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 for and incidental to the satisfactory performance and completion of all Work as specified herein and in accordance with CW 3110-R0 and CW 3150-R4.

E8.2 Materials

E8.2.1 Excavation, sub-grade preparation and granular base materials shall conform to CW 3110-R0.

E8.2.2 Limestone dust topping shall conform to the requirements of CW 3150-R4, and shall consist of the following graduation:

<u>Sieve Number</u>	<u>Percent Passing</u>
9.5 mm	100
4.75 mm	50 – 100
1.18 mm	20 – 55
0.30 mm	10 – 30
0.075 mm	0 - 12

E8.3 Construction Method

E8.3.1 Construct path at location and to details as shown on the Drawings and as directed by the Contract Administrator. Construction to the requirements of CW 3110-R0.

E8.4 Method of Measurement

E8.4.1 Crushed limestone path will be measured on a Surface Area Basis. The surface area to be paid for shall be the number of square metres constructed in accordance with this Specification and accepted by the Contract Administrator, as computed by measurements made by the Contract Administrator.

E8.4.2 Price for crushed limestone surfacing shall include all clearing, excavation, compaction, base construction and topping required for this item of work.

E8.5 Basis of Payment

E8.5.1 The supply and installation of "Crushed Limestone Path" will be paid for at the Contract Unit Price per square metre measured as specified herein, 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.

## **E9. LIGHTING**

### **E9.1 General Description**

E9.1.1 The work to be done by the Contractor under this Specification shall include the furnishing of all superintendence, overhead, labour and materials, equipment, tools, supplies, and all other things necessary for and incidental to the satisfactory performance and completion of all work as hereinafter specified.

### **E9.2 Code Requirements**

E9.2.1 Installation of lighting equipment to conform to Section 30, Canadian Electric Code, Part I (2002) and as amended or supplemented by Provincial or Municipal regulatory agencies.

### **E9.3 Operational Testing**

E9.3.1 Test for short circuits and improper grounds.

E9.3.2 Test operation of fixtures and lamps following installation.

### **E9.4 Materials**

E9.4.1 Light Fixture: SDL8V80 8G  
Further information is available at the following web site:  
<http://www.sdllighting.com/a-12evp806g.html>

E9.4.2 Light Poles: Martec MR05-2FT direct burial pole; 120 mm (4 inch) tenon; black colour.

### **E9.5 Construction Method**

E9.5.1 Install fixtures in accordance with the manufacturer's requirements and code requirements.

E9.5.2 Install poles under the electrical contract. Direct burial poles are to be installed with 1.53 m below ground and 4.57 m above ground. Install accessories as required.

E9.5.3 Be responsible for aiming all lights and re-aiming as required or as directed by the Contract Administrator. All poles and lights must be aligned and plumb.

E9.5.4 Confirm location of new lights with General Contractor prior to installation.

E9.5.5 Any new fixture showing evidence of corrosion, rough handling or scratching is to be replaced at no additional cost.

## **E10. FINISH GRADE AND TOPSOIL**

### **E10.1 General Description**

E10.1.1 This Specification shall supplement CW 3540-R5 and shall cover the supply and placing of topsoil under seeded areas and in tree pits, and planting beds as indicated on the Drawings.

E10.1.2 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 for and incidental to the satisfactory performance and completion of all work as hereinafter specified and in accordance with CW 3540-R5.

### **E10.2 Materials**

E10.2.1 Topsoil: Topsoil is to conform to the requirements of CW 3540-R5 and with the pH range of 6.0 to 8.0 and a salinity rating of less than 4 mmhos/cm.

- E10.2.2 Fertilizer: Complete commercial slow release synthetic fertilizer with minimum 35% water soluble nitrogen. Formulation ratio: as recommended by approved soil test analysis. Obtain Contract Administrator's approval of proposed fertilizer prior to delivery to site.
- E10.2.3 Peatmoss: Derived from partially decomposed fibrous or cellular stems and leaves of species of sphagnum mosses. Elastic and homogenous, brown in colour – free of wood and deleterious material which could prohibit growth. Shredded particle minimum size: 5 mm.
- E10.2.4 Sand: Washed, coarse silica sand, medium to coarse texture.
- E10.2.5 Soil Mixture: 30% each by volume of compost, sand, and peat moss.
- E10.3 Construction Methods
- E10.3.1 The following steps are to be taken to provide a suitable medium for seeding of grasses. **The Contract Administrator must review the site before each subsequent step is taken.**
- (a) Apply glycoposphate to kill existing groundcover without affecting in any way trees and neighbouring properties.
  - (b) When all groundcover has been eliminated (two weeks or more), complete site grading.
  - (c) Smooth and compact the sub-grade, then harrow the surface of the subsoil.
- E10.3.2 Placing and Spreading of Topsoil for Seeding
- (a) Place and spread topsoil for seeding in accordance with CW 3520-R7 "Seeding". Schedule placement of topsoil and finish grading to permit seeding operations under optimum conditions. Place topsoil after Contract Administrator has inspected and approved subgrade. Spread topsoil with adequate moisture in uniform layers over unfrozen subgrade free of standing water. Apply topsoil to 100 mm compacted depth. Manually spread topsoil around obstacles.
- E10.3.3 Placing and Spreading of Topsoil for Planting Beds.
- (a) Scarify the bottom of the excavated bed. Mix the first 150 mm of existing soil with the Soil Mixture. Fill in 150 mm lifts, compacting lightly after each addition of soil. On completion the bed surface is to be level with surrounding grade.
- E10.3.4 Finish Grading
- (a) The area shall be fine graded and the topsoil loosened. Eliminate rough spots and low areas to ensure positive drainage. Prepare loose friable bed by means of cultivation and subsequent raking. Topsoil shall be rolled with 50 kg roller, minimum 900 mm wide, to consolidate it in areas to be sodded, leaving the surface smooth, uniform, firm against deep foot printing, and with a fine loose texture to the approval of the Contract Administrator.
- E10.3.5 Site Clean-Up
- (a) The site shall be kept clean during operations and all excess material and debris shall be disposed of off site.
- E10.4 Method of Measurement
- E10.4.1 Supply and Installation of Topsoil for Seeding
- (a) There shall be no separate measurement for the work associated with supply and installation of topsoil for seeding. This work shall be incidental to Seeding (E11). No separate measurement of payment will be made.
- E10.4.2 Supply and Installation of Topsoil for Planting Beds
- (a) Supply and installation of topsoil for planting beds will be measured on a Surface Area Basis. The area to be paid for shall be the total number of square meters placed in

accordance with this specification and accepted by the Contract Administrator, as calculated from measurements made by the Contract Administrator.

E10.4.3 Supply and Installation of Soil Mixture for Tree and Shrub Planting

- (a) There shall be no separate measurement for the work associated with supply and installation of soil mixture for tree and shrub planting. This work shall be incidental to Trees, Shrubs and Perennials (E12). No separate measurement or payment will be made.

E10.5 Basis of Payment

E10.5.1 Supply and Installation of Topsoil for Seeding

- (a) Supply and installation of topsoil for seeding is incidental to the supply and installation of sod, which price shall be included in the price for seeding. No separate payment for topsoil for seeding shall be made.

E10.5.2 Supply and Installation of Topsoil for Planting Beds

- (a) Supply and installation of topsoil for planting beds will be paid for at the Contract Unit Price per square meter for Supply and Installation of Planting Beds which price shall be payment in full for supplying all materials and performing all operations herein described and all other items incidental to the work included in this Specification.

E10.5.3 Supply and Installation of Soil Mixture for Tree and Shrub Planting

- (a) Supply and installation of soil mixture in tree and shrub planting is incidental to the supply and installation of trees and shrubs which price shall be included in the price for trees and shrubs. No separate payment for soil mixture in tree and shrub planting shall be made.

**E11. SEEDING**

E11.1 Description

- E11.1.1 This specification shall cover the supply and placement of grass seed for the general park area as well as for areas described as having "tall grass mix" on Drawing L-1, and shall supplement CW 3520-R7.

E11.2 Materials

- E11.2.1 Topsoil as specified in E10.2.1.

E11.2.2 Grass Seed

- E11.2.2.1 The Contractor shall supply the following certified seed mixture (by weight) from approved local sources:

- (a) General park grass seed mixture as specified in CW 3520-R7. 5.3.  
(b) Tall grass seed mixture is specified below, and is to be shown at a rate of 7 kg per acre.

10%	Northern Wheatgrass / <i>Agropyron dasystachyum</i>
15%	Awne Wheatgrass / <i>Agropyron smithii</i>
30%	Fringed Bromegrass / <i>Bromus ciliatus</i>
1%	Ticklegrass / <i>Agrostis scabra</i>
7%	Rough Fescue / <i>Festuca scabrella</i>
10%	Perennial Ryegrass / <i>Lolium perenne</i>
15%	Annual Ryegrass / <i>Lolium multiflorum</i>
5%	Alkali Grass / <i>Distichlis stricta</i>
5%	Sheep's Fescue / <i>Festuca ovina</i>
2%	Junegrass / <i>Koeleria cristata</i>

E11.3 Method of Measurement

E11.3.1 Supply, placement and maintenance of seed will be measured on an area basis. The area to be paid for shall be the total number of square meters of prepared topsoil, seeded and maintained in accordance with CW3520-R7 and accepted by the Contract Administrator.

E11.4 Basis of Payment

E11.4.1 Supply, placement and maintenance of seed will be paid for at the Contract Unit Price per square meter for "Seeded grass", measured as specified herein. Payment for seeding shall be in accordance with the following:

- (a) Sixty five (65%) percent of quantity following supply and placement of topsoil and seed.
- (b) Remaining thirty five (35%) percent of quantity following termination of the maintenance period.

E11.5 Maintenance of Seeded Area

E11.5.1 Maintenance of seeded area shall conform to CW 3520-R7.

E11.6 Method of Measurement

E11.6.1 Seeding will be measured on an Area Basis. The area to be paid for shall be the total number of square metres placed in accordance with this Specification and accepted by the Contract Administrator, as calculated from measurements made by the Contract Administrator.

E11.7 Basis of Payment

E11.7.1 Seeding will be paid for at the Contract Unit Price per square metre for 'Seeding' measured as specified herein, which price shall be payment in full for supplying all materials and performing all operations herein described and all other items incidental to the work included in this Specification.

**E12. TREE, SHRUBS AND PERENNIALS**

E12.1 Description

E12.1.1 This Specification shall cover the supply and installation of plant material as specified herein and as indicated on the Drawings, and shall supplement the "Guidelines for the Planting of Boulevard Trees - Schedule D", latest edition, available from the City of Winnipeg Forestry Branch. Where these two documents differ, this Specification shall take precedence.

E12.1.2 The work to be done by the Contactor under this Specification shall include the furnishing of all superintendence, overhead, labour, materials, equipment, tools, supplies, and all other things necessary for and incidental to the satisfactory performance and completion of all work as hereinafter specified.

E12.2 Source Quality Control

E12.2.1 Obtain Approval of plant material at source.

E12.2.2 Notify Contract Administrator of source of material at least seven (7) days in advance of shipment. No work under this section is to proceed without approval.

E12.2.3 Acceptance of plant material at its source does not prevent rejection on site prior to or after planting operations.

E12.2.4 Trees, shrubs and perennials are to be grown in nurseries under proper horticultural practices as recommended by the Canadian nursery trades association.

E12.2.5 Only those trees, shrubs and perennials will be accepted which have been grown for at least the last four (4) previous years in nurseries located in an Agriculture Canada Plant

Hardiness Zone designation of 2 (a or b) or 3 (a or b). Trees, shrubs and perennials that have grown in Plant Hardiness Zone 4 or greater will be rejected.

### E12.3 Shipment and Pre Planting Care

- E12.3.1 Coordinate shipping of plants and excavation of holes to ensure minimum time lapse between digging and planting.
- E12.3.2 Tie branches of trees and shrubs securely and protect plant material against abrasion, exposure and extreme temperature change during transit. Avoid binding of planting stock with rope or wire which damage bark, break branches or destroy natural shape of plant. Give full support to rootball of large trees and shrubs during lifting.
- E12.3.3 Cover plant foliage with tarpaulin and protect bare roots by means of dampened straw, peatmoss, sawdust or other acceptable material to prevent loss of moisture during transit and storage.
- E12.3.4 Remove broken and damaged roots with sharp pruning shears. Make clean cuts and cover cuts over 10 mm diameter with wound dressing.
- E12.3.5 Keep roots moist and protected from sun and wind. Heel-in trees which cannot be planted immediately in shaded areas and water well.

### E12.4 Warranty

- E12.4.1 The Contractor agrees and warranties to replace and replant any nursery stock found dead or in poor condition for a period of two (2) years from date of Certificate of Total Performance without cost to The City. "Poor Condition" shall be interpreted as meaning nursery stock on which branches are dead or dying, or have not shown satisfactory growth in leaves. Exempted is nursery stock damaged by accidental causes or vandalism, which stock shall be replaced at the cost of the The City.
- E12.4.2 All required replacements shall be by plants of at least the same size and species as specified, and shall be supplied and planted in accordance with the original Drawings and Specifications, and the replaced plant material shall carry an additional two (2) year guarantee. Should the replaced plant material not survive, the Contractor will be responsible to replace it a third time and guarantee it for an additional two (2) years unless it is determined that unique site conditions or inadequate maintenance causes the death of plants
- E12.4.3 An end-of-warranty inspection will be conducted.
- E12.4.4 Contract Administrator reserves the right to extend Contractor's warranty responsibilities for an additional two (2) years if, at the end of warranty period, leaf development and growth is not sufficient to ensure future survival.

### E12.5 Replacements

- E12.5.1 During guarantee period, remove from site any plant material that has died or failed to grow satisfactorily as determined by Contract Administrator.
- E12.5.2 Replace plant material as soon as possible and as directed by the Contract Administrator.
- E12.5.3 Extend guarantee on replacement plant material for a period equal to the original guarantee period.
- E12.5.4 Continue such replacement guarantee until plant material is accepted.

### E12.6 Materials

- E12.6.1 Topsoil: E10.2.1
- E12.6.2 Soil Mixture: E10.2.5
- E12.6.3 Water: Potable and free of minerals which may be detrimental to plant growth.

- E12.6.4 Tree Rings: Fabricated from 3 mm galvanized wire encased in two-ply reinforced 12 mm diameter rubber garden hose or equivalent. Use only on advice by the City Forestry Branch.
- E12.6.5 Stakes: T-Bar steel stakes 38 mm x 38 mm x 5 mm x 2500 mm. Paint with two (2) coats black zinc. Use only on advice by the City Forestry Branch.
- E12.6.6 Guy Wires and Accessories: Steel wire strand to CSA G4-M1977 3 mm diameter. Horticultural guy wire tightener. Use only on advice by the City Forestry Branch.
- E12.6.7 Trunk Collar: 150 mm diameter corrugated plastic pipe, 300 mm height.
- E12.6.8 Rootball Burlap: Biodegradable 150 g Hessian burlap.
- E12.6.9 Anti-Desiccant: Wax-like emulsion to provide film over plant surfaces reducing evaporation but permeable enough to permit transpiration. Use only on advice by the City Forestry Branch.
- E12.6.10 Wound Dressing: Horticulturally accepted non-toxic, non-hardening emulsion. Use only on advice by the City Forestry Branch.
- E12.6.11 Fertilizer: Slow release formulation of low nitrogen, high phosphorous (eg, 10-50-12). Apply at rate in accordance with manufacturers written instructions. Use only on advice by the City Forestry Branch.
- E12.6.12 Woodchip Mulch: Woodchips from hardwood, trees, free of bark, branches, and leaves varying in size from 1/4" to 3/4" (6-20 mm) thick.
- E12.6.13 Horticultural Bonemeal: Raw Bonemeal finely ground with minimum analysis of 3% nitrogen and 10% phosphoric acid.
- E12.7 Plant Material
- E12.7.1 Quality and Source: Comply with Guide Specification for Nursery Stock, latest edition, of Canadian Nursery Trades Association (CNTA) referring to size and development of plant material and rootball. Height and spread dimensions refer to main body of plant and not from branch tip to branch tip. Use trees of No. 1 grade.
- E12.7.2 Nomenclature of specified trees is to conform to the International Code of Nomenclature for Cultivated Plants and is to be accordance with the approved scientific names given in the latest edition of "Standardized Plant Names".
- E12.7.3 Trees are to be characteristically developed for their species and structurally sound, well branched, healthy and vigorous and densely foliated when in leaf. Each tree is to have a healthy, well developed, fibrous root system which may be verified through a testing procedure that destructively samples one or more randomly selected rootballs.
- E12.7.4 Trees are to have been root pruned regularly, but not later than one growing season prior to arrival on site. Trees in excess of 75 mm caliper are to have been half root pruned during each of two successive growing season, the latter at least, one growing season prior to arrival on site.
- E12.7.5 All parts of plant material are to be moist and show live, green cambium tissue when cut.
- E12.7.6 Trees and shrubs are to be free of disease, insect infestation, rodent damage, sun scald, frost cracks, abrasions, unhealed scars, scars exceeding 5 cm in diameter, major forks or crooks in the trunk, broken branches, or angled leaders. Trees having the above defects will not be accepted by the Contract Administrator.
- E12.7.7 Trees having a leader which has developed at a sharp angle to the trunk as a result of pruning or trunk damage will not be accepted.
- E12.7.8 Tree Spade Dug Material: Dig plant material with mechanized digging equipment of hydraulic spade or clamshell type. Rootballs to satisfy CNTA standards. Lift rootball from hole, place in wire basket designed for purpose and lined with burlap. Tie burlap around



rootball and tie basket to ball with heavy rope. take care not to injure trunk of tree with wire basket ties or rope. Direct planting by hydraulic tree spade will not be accepted.

E12.7.9 Container Grown Stock: Acceptable if container is large enough for root development. Trees and shrubs must have grown in container for minimum of one growing season but no longer than two. Root system must be able to "hold" soil when removed from container. Plants that have become root bound are not acceptable.

E12.7.10 Deciduous trees in excess of 3 m height must have been dug with large firm ball. Rootballs must include seventy-five percent (75%) of fibrous and feeder root system. This excludes the use of native trees grown in light sandy or rocky soil. Secure rootballs with burlap, heavy twine and rope. For large trees wrap ball in double layer of burlap and drum lace with minimum 10 mm diameter rope. Protect rootballs against sudden changes in temperature and exposure to heavy rainfall.

E12.7.11 Cold Storage: Approval required for plant material which has been held in cold storage.

E12.7.12 Substitutions to plant material as indicated on planting plan are not permitted unless written approval has been obtained as to type, variety and size. Plant substitutions must be of similar species and of equal size as those originally specified.

## E12.8 Equipment

E12.8.1 All equipment shall be of a type approved by the Contract Administrator and shall be kept in good working order.

## E12.9 Construction Methods

### E12.9.1 General

- (a) Stake out location of trees and shrubs as per drawings. Obtain Contract Administrator's acceptance prior to excavating.
- (b) Apply anti-desiccant in accordance with material manufacturer's instructions, as required.
- (c) Coordinate operations. Keep site clean and planting holes drained. Immediately remove soil or debris spilled onto street pavement, grass or walks.

### E12.9.2 Planting time

- (a) Plant only under conditions that are conducive to health and physical conditions of plants.
- (b) Provide planting schedule. Extending planting operations over long period using limited crew will not be accepted.
- (c) Install trees and shrubs within 48 hours of removal from the nursery.

### E12.9.3 Excavation

- (a) Excavate tree pits and planting holes as indicated on Detail on Drawings. Distribute excavated topsoil on site. Dispose of excavated clay soils off site.
- (b) Protect bottom of excavations against freezing.
- (c) Remove water which enters excavations prior to planting. Ensure source of water is not ground water or from a broken water pipe.

### E12.9.4 Planting

- (a) Loosen sides of planting holes to a depth of 100 to 150 mm as indicated on Details on Drawings L-1 and L-5. Cover bottom of each excavation with bonemeal in amount recommended by manufacturer.
- (b) Plant trees vertically with roots placed straight out in hole. Orient plant material to give best appearance in relation to structure, roads, and walks.
- (c) Place plant material to equal depth they were originally growing in nursery.

- (d) With balled and burlapped rootballs, loosen burlap and remove maximum of 1/3 of the top burlap from rootball without disturbing the rootball. Do not pull burlap or rope from under rootball. With container stock, remove entire container without disturbing rootball. Non-biodegradable wrappings must be removed.
- (e) Tamp planting soil around root system in layers of 150 mm, eliminating air voids. Frozen or saturated planting soil is unacceptable. When 2/3 of planting soil has been placed, fill hole with water. After water has completely penetrated into soil, complete backfilling.
- (f) Each tree is to have an earth saucer at its base having a diameter as large as the excavation with a 100 mm lip formed at the perimeter of the saucer to retain water.

#### E12.9.5 Fertilizing

- (a) When planting is completed, give surface of planting saucer dressing of fertilizer meeting the requirements of E12.6.11. Mix fertilizer thoroughly with top layer of planting soil and water in well.

#### E12.9.6 Tree Support

- (a) Staking for Trees and Evergreens: Backfill planting hole 2/3, drive T-rail stake 2' (900 mm) into bottom of pit, taking care not to damage main roots. Place stake on side of prevailing wind. Fasten trunk to stake or anchor with tree ring. Different methods of fastening tree trunk to stake or anchor are acceptable if no damage to bark of tree will occur. Obtain approval prior to using other methods.

#### E12.9.7 Mulching

- (a) Obtain approval of planting before mulching material is applied. Loosen soil in planting beds and pits and remove debris and weeds. Spread mulch to minimum thickness of 75 mm (3") or as indicated on drawing. Mulch material susceptible to blowing must be moistened and mixed with topsoil before applying. When mulching is placed in fall, place immediately after planting. When mulch is placed in spring, wait until soil has warmed.

#### E12.9.8 Maintenance and Guarantee of Nursery Stock

- (a) The Contractor shall provide all watering, weeding, tightening and repairing tree stakes and rings, removal of dead material and all repairing tree stakes and rings, removal of dead material and all other maintenance operations required for two years after the date of the Certificate of Total Performance. See E13 for additional information.
- (b) The Contractor shall agree and guarantee to replace and replant any nursery stock found dead and/or in poor condition two years from the date of the Certificate of Total Performance, at his cost. "Poor Condition" shall be interpreted as meaning nursery stock on which branches are dying, or have not shown satisfactory growth of leaves.
- (c) Exempted is nursery stock damaged by accidental causes or vandalism, which stock shall be replaced at the cost of The City.
- (d) All required replacements shall be by plants of at least the same size and species as specified, and shall be supplied and planted in accordance with the original drawings and Specifications, and the replaced material shall carry an additional two-year guarantee and maintenance period.

#### E12.10 Method of Measurement

##### E12.10.1 Trees, Shrubs and Perennials

- (a) Plant Material will be measured on a unit basis. The number to be paid for shall be the total number of each type and size of tree supplied and installed in accordance with the Specification and accepted by the Contract Administration.

#### E12.11 Basis of Payment

- E12.11.1 The supply and installation of trees and shrubs will be paid for at the Contract unit price for each plant, measured as specified herein, which prices shall be payment in full including all costs for the plant, plant pit and topsoil backfill, tree stakes, rings, pruning, two year maintenance, and all other items incidental to the Work included in this Specification.
- E12.11.2 Twenty five (25) % of the value of all plant material, as itemized on the unit price forms, shall be held back to pay for the two year maintenance period. See E13 for payment during two year maintenance period.
- E12.11.3 Seventy five (75) % of the value of all plant material, as itemized on the unit price forms, will be paid for when the plant material complies with the supply and installation sections of the specification requirements.

E12.12 Plant Specification List

<b>PLANT SPECIFICATION LIST</b>			
<b>no.</b>	<b>name common / scientific</b>	<b>size</b>	<b>comments</b>
<b>trees:</b>			
4	American Basswood <i>Tilia Americana</i>	65-75mm cal 4 000-4 500 ht	B & B or tree mover 750 rootball
10	Fall Gold Ash <i>Fraxinus nigra 'Fall Gold'</i>	65-75mm cal 4 000-4 500 ht	B & B 750 rootball
14	Bur Oak <i>Quercus macrocarpa</i>	45-50mm cal	B & B 550 rootball
18	Colorado Spruce <i>Picea pungens 'Colorado'</i>	2 100 ht	B & B or tree mover, wire basket
10	Cottonwood (Plains) <i>Populus deltoides</i>	60-70mm cal 3500-4500 ht	B & B or tree mover, wire basket, 700 rootball; boulevard specimen
8	Green Ash <i>Fraxinus pennsylvanica var. subintegerrima</i>	45-50mm cal	B & B 550 rootball
7	Manitoba Maple <i>Acer negundo</i>	45-50mm cal	B & B 550 rootball
<b>shrubs:</b>			
15	Buffaloberry <i>Shepherdia argentea</i>	#5 container	
25	Dogwood/ <i>Cornus sericea</i>	#3 container	
6	Nannyberry / <i>Viburnum lentago</i>	#3 container	Own root
<b>perennials:</b>			
36	Feather Reed Grass <i>Calamagrostis acutiflora 'Karl Foerster'</i>	#1 container	

### **E13. TREE, SHRUBS AND PERENNIALS MAINTENANCE SCHEDULE**

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

E13.1.1 This specification shall cover the landscape maintenance requirements for all trees, shrubs, and perennials and associated planting operations.

#### **E13.2 Related Work**

E13.2.1 Plant material and planting pits are specified elsewhere in this Specification and form an integral part to all Work described herein.

#### **E13.3 Maintenance Period**

E13.3.1 Undertake maintenance from the date of installation for a period of two years past the date of total performance.

#### **E13.4 Description of Work**

E13.4.1 Maintain trees, shrubs, and perennials shown on the drawings, to the satisfaction of the Contract Administrator.

E13.4.2 Work includes:

- (a) Fertilizing
- (b) Watering
- (c) Weed control of tree pits, wood chip mulch areas
- (d) Pest and disease control
- (e) Pruning
- (f) Mulching
- (g) Tree support and tie adjustment
- (h) Winter protection

#### **E13.5 Protection**

E13.5.1 Prevent damage to fencing, other trees, landscaping, bench marks, building, pavement, surface and underground utility facilities.

#### **E13.6 Materials**

E13.6.1 Materials are to conform to the requirements of related specifications.

#### **E13.7 Maintenance Requirements**

##### **E13.7.1 Condition of Equipment**

- (a) Prior to the commencement of tree and shrub planting, the Contractor will be required to arrange to have the equipment to be supplied under this Contract inspected by the Contract Administrator to verify that the equipment is in good operating condition and meets the requirements of the Specifications.

##### **E13.7.2 Replacement Equipment**

- (a) The supply of replacement equipment of equal or larger size, if regular units are under repair, will be the responsibility of the Contractor.

##### **E13.7.3 General Workmanship**

- (a) Program timing of operations to growth, weather conditions and use of site. Do each operation continuously and complete within reasonable time period. Store equipment and materials off-site. Collect and dispose of debris or excess material on daily basis.

#### **E13.8 Fertilizing**

- E13.8.1 Apply fertilizer no later than May 30<sup>th</sup> of each maintenance year.
- E13.9 Watering
- E13.9.1 The Contractor shall acquire and pay for all water.
- E13.9.2 Apply water as required to supplement rainfall and to maintain optimum growing conditions. In general, water once a week to achieve rates as indicated below. Allow soil to dry adequately between watering to prevent over-saturation without creating water stress.
- E13.9.3 Subject to the requirements above, the Contractor must water at least once a week inclusive between May 1<sup>st</sup> and October 30<sup>th</sup>. A complete record is to be kept of each series of waterings for all planted and transplanted trees, noting: 1) location, and 2) date of watering. This record is to be given to the Contact Administrator when requested.
- E13.9.4 Apply 40 litres of water per 25 mm caliper, per application using deep roof feeder or low pressure open flow nozzle and hose. The water stream must not gouge out a hole in the soil and mulch.
- E13.9.5 Apply 4 litres of water per shrub per application
- E13.10 Weed Control
- E13.10.1 Maintain surface of tree pit, shrub bed and mulched areas, free of weeds. Do not allow weeds to establish for a period longer than one (1) week.
- E13.10.2 Do not use dicamba and picloram solutions near trees.
- E13.11 Pests and Diseases
- E13.11.1 Obtain written approval of Contract Administrator prior to using any pesticide.
- E13.11.2 Control pests and disease through pruning or application of pesticides. Use species specific pesticides where possible. Use only pesticides of low mammalian toxicity. Strictly follow manufacturer's written instructions.
- E13.12 Pruning
- E13.12.1 The Contractor shall provide a person with a valid Manitoba tree Pruner's License for each work crew.
- E13.12.2 Prune trees as required to remove dead, broken or damaged limbs. Prune back to healthy growth while maintaining balanced crown shape.
- E13.12.3 Employ clean sharp tools. Make cuts coincident with the branch collar near the main stem or branch. Cuts must be smooth and sloping to prevent accumulation of water on cut. Do not leave little stumps ("horns") on trunks or main branches.
- E13.12.4 Prune trees according to accepted horticultural practices as outlined in the Pruning Manual, Publication No. 1505 by Agriculture Canada.
- E13.13 Mulching
- E13.13.1 Add mulch as required to maintain 75 mm thickness.
- E13.14 Tree Supports and Tie Adjustments (If Employed)
- E13.14.1 Maintain tree supports and ties in proper repair.
- E13.14.2 Remove supports and ties at end of two year maintenance period or earlier if directed by City.
- E13.14.3 Straighten any tree which is leaning.
- E13.15 Winter Protection

- E13.15.1 Ensure adequate moisture in tree zones prior to freeze-up.
- E13.15.2 Apply anti-desiccant to evergreen trees susceptible to winter desiccation as directed by Contract Administrator.
- E13.15.3 Provide trunk protection from rodents, acceptable to the Contract Administrator.

#### E13.16 Maintenance Schedule

- E13.16.1 The Contractor shall provide a complete written maintenance schedule to the Contract Administrator prior to the commencement of the two year maintenance period, and must provide weekly reports of all maintenance to the City of Winnipeg, Forestry Department, within one week of the maintenance being provided.

#### E13.17 Maintenance Period

- E13.17.1 The two year maintenance period shall be based on six month growing season per year. The two year maintenance program will consist of a total of 12 months of maintenance. In general the maintenance shall commence on May 1<sup>st</sup> and terminate on October 30<sup>th</sup> of each year. In the event of any early spring, whereby the weather conditions are conducive to plant growth, the Contractor shall start the maintenance period at such time as they deem necessary. However, the City of Winnipeg, Forestry Branch, must be notified prior to commencing the maintenance period. Where the maintenance Contract is started prior to May 1<sup>st</sup>, the actual number of days that the plant material is maintained prior to May 1<sup>st</sup> will be deducted from the October 30<sup>th</sup> completion period.

#### E13.18 Cost of Two Year Maintenance Period

- E13.18.1 The cost for the Two Year Plant Maintenance Period will be twenty-five (25) % of the total cost of all the trees and shrubs, as shown in Form B: Prices, items one (1) to three (3) inclusive. The remaining seventy five (75) % value will be paid on a per unit basis, for each plant properly installed, and which plant complies with the specification requirements.
- E13.18.2 Where the plant material has been replaced and is covered under the extended warranty period, a proportional amount of holdback will be further maintained, until the plant has survived for a full two years and is accepted.

#### E13.19 Payment of Two Year Maintenance Period

- E13.19.1 The basis of payment cost, will be based on a pro rated basis, based on each full month of maintenance, and the respective proportion of the total twelve (12) months. Progress payments will be made once a year at the end of each growing season.

### **E14. DAMAGE TO STREETS, STRUCTURES AND TREES**

- E14.1 The Contractor's attention is drawn to the following existing site features to be retained and protected to the City of Winnipeg Standards:
  - (a) Trees, shrubs
  - (b) Curbs
  - (c) Sod
  - (d) Hydro poles
  - (e) Catch basins
  - (f) Curb inlets
  - (g) Underground services including land drainage swer