



THE CITY OF WINNIPEG

BID OPPORTUNITY

BID OPPORTUNITY NO. 788-2014

POINTE HEBERT PARK UPGRADES – PHASE I

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PART B - BIDDING PROCEDURES

B1. CONTRACT TITLE

B1.1 POINTE HEBERT PARK UPGRADES – PHASE I

B2. SUBMISSION DEADLINE

B2.1 The Submission Deadline is 4:00 p.m. Winnipeg time, September 2, 2014.

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

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

B3. SITE INVESTIGATION

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

B3.2 The Bidder is advised that construction is ongoing in the area including house construction and boulevard sodding.

B4. ENQUIRIES

B4.1 All enquiries shall be directed to the Contract Administrator identified in D4.1.

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 8 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, to the Bidder who requested approval of the substitute.

- B7.6.1 The Contract Administrator will issue an Addendum, disclosing the approved materials, equipment, methods and products to all potential Bidders. The Bidder requesting and obtaining the approval of a substitute shall be responsible for disseminating information regarding the approval to any person or persons he/she wishes to inform.
- 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 B16.
- 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 B16.1(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 B16.1(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 10 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. QUALIFICATIONS

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
have a written workplace safety and health program if required pursuant to The Workplace Safety and Health Act (Manitoba); 9

B11.4 Further to 0, 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 copy of their valid Manitoba COR certificate and Letter of Good Standing (or Manitoba equivalency) as issued under the Certificate of Recognition (COR) Program administered by the Construction Safety Association of Manitoba or by the Manitoba Heavy Construction Association's WORKSAFELY™ COR™ Program; or
- (b) a copy of their valid Manitoba SECOR™ certificate and Letter of Good Standing (or Manitoba equivalency) as issued under the Small Employer Certificate of Recognition Program (SECOR™) administered by the Construction Safety Association of Manitoba or by the Manitoba Heavy Construction Association's WORKSAFELY™ COR™ Program; or
- (c) a report or letter to that effect from an independent reviewer acceptable to the City. (A list of acceptable reviewers and the review template are available on the Information Connection page at The City of Winnipeg, Corporate Finance, Materials Management Division website at <http://www.winnipeg.ca/matmgt/>).

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. ELIGIBILITY

B12.1 Various organizations provided investigative services with respect to this Bid Opportunity. In the City's opinion, this relationship or association does not create a conflict of interest or will not

likely create a perception of conflict of interest because of this disclosure. The organizations are:

- (a) Bestway Fence Systems

B13. OPENING OF BIDS AND RELEASE OF INFORMATION

B13.1 Bids will not be opened publicly.

B13.2 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>

B13.3 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/>

B13.4 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.

B14. IRREVOCABLE BID

B14.1 The Bid(s) submitted by the Bidder shall be irrevocable for the time period specified in Paragraph 9 of Form A: Bid.

B14.2 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 9 of Form A: Bid.

B15. WITHDRAWAL OF BIDS

B15.1 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.

B15.1.1 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.

B15.1.2 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 10 of Form A: Bid, and only such person, has authority to give notice of withdrawal.

B15.1.3 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 10 of Form A: Bid; and
- (c) if the notice has been given by any one of the persons specified in B15.1.3(b), declare the Bid withdrawn.

B15.2 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 B14.2 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.

B16. EVALUATION OF BIDS

- B16.1 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.
- B16.2 Further to B16.1(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.
- B16.3 Further to B16.1(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.
- B16.4 Further to B16.1(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.
- B16.4.1 Further to B16.1(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.

B17. AWARD OF CONTRACT

- B17.1 The City will give notice of the award of the Contract or will give notice that no award will be made.
- B17.2 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.
- B17.2.1 Without limiting the generality of B17.2, 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.
- B17.3 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 B16.
- B17.3.1 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.
- B17.4 Notwithstanding C4, the City may issue a Purchase Order to the successful Bidder in lieu of the execution of a Contract.
- B17.5 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
- 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 the renovation of existing park facilities and construction of limestone pathway on riverbank. .

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

- (a) Removal and disposal of toboggan slide components;
- (b) Refurbish existing toboggan tower;
- (c) Removal and disposal of existing chain link fence
- (d) Installation of welded wire fence with gates
- (e) Installation of planting beds and plant material
- (f) Removal and disposal of existing gravel
- (g) Installation of limestone pathway
- (h) Installation of bench and waste receptacle
- (i) Installation of asphalt overlay on existing gravel base
- (j) Installation of asphalt turnaround
- (k) Installation of wood bollards
- (l) Installation of 'fire route' signage
- (m) Installation of CSP culverts
- (n) Installation of topsoil and sod
- (o) Permitting for all works;

D3. DEFINITIONS

D4. CONTRACT ADMINISTRATOR

D4.1 The Contract Administrator is McGowan Russell Group, represented by:
Matthew Derksen

Telephone No. 204 956-0396
Facsimile No. 204 956-1265

D4.2 At the pre-construction meeting, Mr. Derksen will identify additional personnel representing the Contract Administrator and their respective roles and responsibilities for the Work.

D4.3 Bids Submissions must be submitted to the address in B8.5.

D5. CONTRACTOR'S SUPERVISOR

D5.1 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.

D6. OWNERSHIP OF INFORMATION, CONFIDENTIALITY AND NON DISCLOSURE

- D6.1 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.
- D6.2 The Contractor shall not make any public announcements or press releases regarding the Contract, without the prior written authorization of the Contract Administrator.
- D6.3 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.
- D6.4 A Contractor who violates any provision of D6 may be determined to be in breach of Contract.

D7. NOTICES

- D7.1 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.
- D7.2 All notices, requests, nominations, proposals, consents, approvals, statements, authorizations, documents or other communications to the City, except as expressly otherwise required in D7.3, D7.4 or elsewhere in the Contract, shall be sent to the attention of the Contract Administrator at the facsimile number identified in D4.1.
- D7.3 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
- D7.4 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

D8. AUTHORITY TO CARRY ON BUSINESS

- D8.1 The Contractor shall be in good standing under The Corporations Act (Manitoba), or properly registered under The Business Names Registration Act (Manitoba), or otherwise properly registered, licensed or permitted by law to carry on business in Manitoba, or if the Contractor does not carry on business in Manitoba, in the jurisdiction where the Contractor does carry on business, throughout the term of the Contract, and shall provide the Contract Administrator with evidence thereof upon request.

D9. SAFE WORK PLAN

- D9.1 The Contractor shall provide the Contract Administrator with a Safe Work Plan at least five (5) Business Days prior to the commencement of any Work on the Site but in no event later than the date specified in C4.1 for the return of the executed Contract.
- D9.2 The Safe Work Plan 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/matmgmt/Safety/default.stm>

D10. INSURANCE

- D10.1 The Contractor shall provide and maintain the following insurance coverage:
- (a) commercial general liability insurance, in the amount of at least two million dollars (\$2,000,000.00) inclusive, with The City of Winnipeg added as an additional insured, with a cross-liability clause, such liability policy to also contain contractual liability, unlicensed motor vehicle liability, non-owned automobile liability 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.
- D10.2 Deductibles shall be borne by the Contractor.
- D10.3 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.
- D10.4 The Contractor shall not cancel, materially alter, or cause each policy to lapse without providing at least thirty (30) Calendar Days prior written notice to the Contract Administrator.

D11. PERFORMANCE SECURITY

- D11.1 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.
- D11.1.1 Where the performance security is in the form of a certified cheque or draft, it will be deposited by the City. The City will not pay any interest on certified cheques or drafts furnished as performance security.

D11.2 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.

D12. SUBCONTRACTOR LIST

D12.1 The Contractor shall provide the Contract Administrator with a complete list of the Subcontractors whom the Contractor proposes to engage (Form J: Subcontractor List) at 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.

SCHEDULE OF WORK

D13. COMMENCEMENT

D13.1 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.

D13.2 The Contractor shall not commence any Work on the Site until:

- (a) the Contract Administrator has confirmed receipt and approval of:
 - (i) evidence of authority to carry on business specified in D8;
 - (ii) evidence of the workers compensation coverage specified in C6.15;
 - (iii) the Safe Work Plan specified in D9;
 - (iv) evidence of the insurance specified in D10;
 - (v) the performance security specified in D11; and
 - (vi) the Subcontractor list specified in D12.
- (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.
- (c) permitting is in place for all construction

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

D13.4 The City intends to award this Contract by September 15, 2014.

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

D14. SUBSTANTIAL PERFORMANCE

D14.1 The Contractor shall achieve Substantial Performance by October 17, 2014.

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 by October 31, 2014.
- 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 or Total Performance in accordance with the Contract by the days fixed herein for same, the Contractor shall pay the City the following amounts per Calendar Day for each and every Calendar Day following the days fixed herein for same during which such failure continues:
- (a) Substantial Performance – five hundred dollars (\$500.00);
 - (b) Total Performance – five hundred dollars (\$500.00).
- D16.2 The amounts specified for liquidated damages in D16.1 are based on a genuine pre-estimate of the City's losses in the event that the Contractor does not achieve critical stages, Substantial Performance or Total Performance by the days fixed herein for same.
- 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) Plant material as specified in E26 and E30;
 - (b) Sod as specified in E28;
- 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/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 Notwithstanding C13.2, the warranty period shall begin on the date of Substantial Performance and shall expire one (1) year thereafter unless extended pursuant to C13.2.1 or C13.2.2, in which case it shall expire when provided for thereunder.

D22.2 Notwithstanding C13.2 or D22.1, the Contract Administrator may permit the warranty period for a portion or portions of the Work to begin prior to the date of Substantial Performance if:

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

D22.2.1 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.

D22.3 The warranty period on trees shall begin on the date of Substantial Performance and shall expire two (2) years thereafter.

D22.4 The warranty period on sod shall begin on the date of Substantial Performance and shall expire thirty (30) days thereafter.

FORM H1: PERFORMANCE BOND
(See D11)

KNOW ALL MEN BY THESE PRESENTS THAT

_____ ,
(hereinafter called the "Principal"), and

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

_____ dollars (\$_____)

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

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

BID OPPORTUNITY NO. 788-2014

POINTE HEBERT PARK UPGRADES – PHASE I

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 D11)

(Date)

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

RE: PERFORMANCE SECURITY - BID OPPORTUNITY NO. 788-2014
POINTE HEBERT PARK UPGRADES – PHASE I

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>
L0	Overall Plan
L1.1	Layout Plan – Riverbank Pathway
L1.2	Layout Plan – Whittier Park Road Paving
L1.3	Club D’Escalade Site
L1.4	Toboggan Tower Refurbishment

E2. SOILS INVESTIGATION REPORT

- E2.1 Further to C3.1, no soils investigation report has been done for this site.

E3. COMPLETE PROJECT

- E3.1 The Contractor is to deliver a complete project including all permits, inspections, demolition/removals, connections, tie-ins, restorations, etc. required to operate and maintain the project.

E4. WORK BY OTHERS

- E4.1 The City of Winnipeg will have regular maintenance staff working in the area. The Contractor is to ensure that all personnel have safe access to complete their works.
- E4.2 Club D’Escalade to paint climbing tower and install new LED lights. Contractor to coordinate with Club D’Escalade to ensure there is no conflict with this work.
- E4.3 Festival du Voyager to remove concrete weights and wooden doors from underneath existing toboggan shoot. Contractor to coordinate with Festival du Voyager to ensure the removal of concrete weights and wood doors to ensure completion of the Work is not impacted.

E5. EXISTING SERVICES AND UTILITIES

- E5.1 No responsibility will be assumed by the City or the Contract Administrator for correctness or completeness of the Drawings, when provided, with respect to the existing utilities, pipes or other objects, either underground or on the surface; the City and the Contract Administrator shall not be liable for the incorrectness and inadequacy thereof. It shall be the responsibility of the Contractor to determine the location of all such utilities, pipes and other objects and to make good any damage done to them.

E6. ACCESS TO SITE

- E6.1 Access to the Site as required by the Contractor shall be provided and maintained by the Contractor at his own expense and approved by the Contract Administrator.
- E6.2 The Contractor's operations shall be limited to the minimum area necessary for undertaking the Work and he shall be responsible for all damage resulting from his Work on private or public property.

E7. SITE CONDITION

- E7.1 The Contractor shall examine the Site and make themselves familiar with the existing conditions (both above and below grade) and nature of Work to be done.
- E7.2 Surface and sub-surface conditions shown on the Drawings and included herein are provided for general information and variations there from shall not affect the terms of the Contract.
- E7.3 The Contractor shall set all necessary control lines, benchmarks, survey, elevation stakes and layout in accordance with the individual Site conditions and in consultation with the Contract Administrator.

E8. DAMAGE TO EXISTING STRUCTURES, TREES AND PROPERTY

- E8.1 All necessary precautions shall be exercised by the Contractor so as not to remove, disturb, or damage any existing trees, shrubs, sod, pavements, streets, roads, boulevards, poles, hydrants, water pipes, gas pipes, electrical wires, cables, conduits, sewers or other existing facilities and equipment at the Site of the Work. For all damage incurred in the performance of the Work (either directly or indirectly), the Contractor shall either replace and repair such damage, whichever may be deemed necessary in the opinion of, and acceptable to the Contract Administrator, and the cost of which shall be borne entirely by the Contractor. The Contractor shall also indemnify and save harmless the City and the Contract Administrator from all claims made directly or indirectly against it in respect to any such damage.

E9. PERMITS, NOTICES, LICENCES, CERTIFICATES, LAWS AND RULES

- E9.1 Further to C6.12, the Contractor shall give all necessary notices, obtain all necessary permits and pay all fees in order that the Work may be carried out. The Contractor shall submit all plans required by any inspection authority and obtain approval of same before proceeding with the Work, and pay any cost attached to the inspection of such plans.
- E9.2 The Contractor shall comply with all laws, ordinances, rules and regulations that would relate to the Work.
- E9.3 All notices, consents, approvals, statements, authorizations, documents or other communications to the City shall be submitted to the Contract Administrator.
- E9.4 All Work shall be performed in compliance with the Manitoba Workplace Health and Safety Act.
- E9.5 All Work shall be performed in compliance with the Manitoba Workplace Health and Safety Fall Protection guidelines.
- E9.6 The Contractor and Sub-contractors must be fully aware of all Work involving hazardous materials. All Work must be performed in compliance with the Manitoba Department of Labour Workplace Health and Safety Guidelines and all other applicable codes. The Contractor is responsible for the immediate notification to the Contract Administrator of his/her encountering of suspected hazardous material during their course of Work.

E10. STAKES AND MARKS

- E10.1 The Contractor will mark, to the extent he determines to be necessary, the location, alignment and elevation of the Work by means of stakes or marks, for review and approval by the Contract Administrator. The Contractor shall make the completed Works conform to the lines and marks thus approved and indicated.
- E10.2 The Contractor shall notify the Contract Administrator immediately of the disturbance of any such stakes or marks. The cost of correcting any errors arising out of neglect of the Contractor 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.
- E10.3 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 on account of any alleged inaccuracies. If any error is suspected in the Drawings, 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.
- E10.4 The Contractor shall determine and provide all dimensions and elevations measured from the stakes or marks.
- E10.5 The Contract Administrator shall be advised of the staking of the Work at least twenty-four (24) hours in advance in order that the layout may be inspected and adjusted as required prior to construction. The cost of correcting any errors arising out of neglect of the Contractor to so notify the Contract Administrator shall be borne entirely by the Contractor.

E11. PEDESTRIAN SAFETY AND TRAFFIC MANAGEMENT

- E11.1 Further to CW 1130, the Contractor shall take such measures as are necessary to ensure safe and convenient pedestrian ingress and egress is maintained to private properties while he is Working near them. Any damage caused by the negligence of the Contractor or his SubContractors to the adjacent Works or properties, shall be promptly repaired by him at his own expense, to the satisfaction of the Contract Administrator.
- E11.2 The Contractor shall, during the construction of this project, maintain safe, accessible, access to the adjacent facilities at all times.
- E11.3 The Contractor shall isolate the work Site with temporary fencing. These shall be erected and maintained as required for the duration of the construction period.
- (a) Orange safety fencing will not be accepted as sufficient to isolate the site.
- E11.4 Ambulance/Emergency vehicle access must be maintained at all times.
- E11.5 Site enclosures shall be considered incidental to the Contract Work.

E12. PROTECTION OF THE SURVEY INFRASTRUCTURE

- E12.1 Notwithstanding clause 4 "Protection of Survey Bars" of the Standard Provisions; 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.
- E12.2 Further to C:6.26 (g), at least seventy-two (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 am to 4:00 pm 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.
- E12.3 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 forty-eight (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.

- E12.4 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.
- E12.5 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

E13. TREE PROTECTION

- E13.1 The Contractor shall take the following precautionary steps to prevent damage from construction activities to existing park trees within the limits of the construction area.
- (a) The Contractor shall not stockpile materials and soil or park vehicles and equipment within 2 metres of trees.
 - (b) Trees identified to be at risk by the Contract Administrator are to be strapped with 25x100x2400mm wood planks, or suitable protection as approved by the Contract Administrator.
 - (c) Excavation shall be performed in a manner that minimizes damage to the existing root systems. Where possible, excavation shall be carried out such that the edge of the excavation shall be a minimum of 1.5 times the diameter (measured in inches), with the outcome read in feet, from the closest edge of the trunk. Where roots must be cut to facilitate excavation, they shall be pruned neatly at the face of excavation.
 - (d) Operation of equipment within the drip line of the trees shall be kept to a 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 drip lines of trees. The drip line 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.
- E13.2 Where tree protection fencing is called for the Contractor shall install orange safety fencing with a minimum height of 1.2m using t-rail metal stakes at a maximum spacing of 2m o.c. Safety fencing shall be securely fastened to the trail stake.
- E13.3 Contractor shall maintain tree protection fence until such time as construction is sufficiently well progressed as to ensure that vehicular traffic and movement of heavy materials is no longer necessary to complete the remaining works.
- E13.4 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.
- E13.5 Tree protection shall be incidental to the work and will have no separate measurement and payment.

E14. LAYOUT OF WORKS

- E14.1 The Contractor will Work from layout information provided in the construction drawings and will be responsible to provide a full time experienced survey crew to layout and continuously check the locations and elevations of all components of the Work included in this Contract.
- E14.2 The Contractor must provide all necessary survey equipment in good operating conditions.

E14.3 The Contractor shall supply all materials (painting, stakes, ribbon, markers, etc) and labour necessary for the accurate location and setting out of the Work.

E14.4 From time to time the Contract Administrator may have a survey crew on the Site, but they will check the Work done by the Contractor's survey personnel only. The checking of the Work by the City's surveyors will not relieve the Contractor of any responsibility of the correctness of the Work. Should any structure or paving or any part thereof be installed in any location other than that shown on the Drawings, then the error shall be rectified by the Contractor all at his own expense and at the satisfaction of, and in a manner specified by the Contract Administrator.

E15. EXISTING UNDERGROUND SERVICES

E15.1 The Contractor's attention is drawn to the existing underground lines or services that may be located in the area of the Work.

E15.2 The Contractor shall take all necessary precautions when performing the Work to ensure that no damage is done to these existing services.

E15.3 No responsibility will be assumed by the Owner for correctness or completeness of the Drawings, when provided, with respect to the existing utilities, pipes or other objects either underground or on the surface, shall not be liable for the incorrectness and inadequacy thereof. It shall be the responsibility of the Contractor to determine the location of all such utilities, pipes and other objects and to make good any damage done to them.

E15.4 All costs in connection with this item including location of the existing service, repairs to any existing services damaged by the construction operation, etc. shall be included in the unit prices bid for supply and installation of the items included under this Contract.

E15.5 The Contractor will be required to make his own arrangements in connection with the temporary use of lighting, power, gas, sewer, water or other utilities, and pay all costs in connection therewith.

E15.6 All necessary permits, fees and other like expenses as well as the cost of temporary connections to existing facilities shall be arranged and paid for by the Contractor.

E16. PRODUCT APPROVALS

E16.1 The Contractor shall, following award, prepare a complete list of all material to be used on the project and submit the list to the Contract Administrator seventy two (72) hours prior to start of construction.

E16.2 The Contractor shall only use material which has been approved by Specification CW 3710-R1 or by the Contract Administrator. The list shall provide the product, the manufacturer and the supplier.

E16.3 Other than required to be done by the Contractor under the Work of this contract, all necessary precautions shall be exercised by the Contractor so as not to remove, disturb, or damage any existing plant material, pavements, streets, roads, boulevard, poles, hydrants, water pipes, gas pipes, electrical wires, cables, conduits, sewers or other existing facilities and equipment at the Site of the Work. For all damage incurred thereto in the performance of the Work, the Contractor shall upon instructions from the Contract Administrator, either replace or repair such damage, whichever may be deemed necessary in the opinion of, and acceptable to the Contract Administrator and the costs of which shall be borne entirely by the Contractor.

E16.4 All workmanship and materials furnished and supplied under this Specification are subject to close and systematic inspection and testing by the Contract Administrator. The Contract Administrator reserves the right to reject any materials or Works which are not in accordance with the requirements of the Specifications.

E16.5 The Contractor shall be wholly responsible for the supply, safe storage, and handling of all materials set forth in this specification, and the control of all operations incidental thereto notwithstanding any inspection or approval that may have been previously given.

E17. DAMAGE TO STREETS AND STRUCTURES

E17.1 The Contractor is to be advised of the following existing Site features to be retained and protected to the City of Winnipeg Standards:

- | | | |
|-------------|-----------------------------|-----------------|
| a) trees | e) light standards | i) hydro poles |
| b) curbs | f) fire hydrants | j) catch basins |
| c) sidewalk | g) street signs | k) curb inlets |
| d) sod | h) all underground services | l) fences |

E18. CONSTRUCTION FACILITIES AND STAGING

E18.1 The Contractor shall be responsible for providing his own storage and handling of all his/her construction operations. The use of public right-of-ways will not be allowed.

E19. EXCAVATION, REMOVALS, SUBGRADE COMPACTION AND ROUGH GRADING

E19.1 This specification is supplemental to CW 3110 and CW 3170. The Work of this section comprises the furnishing of all labour, equipment and materials required to complete the excavation fill, grading and related Work including, but not necessarily confined to, the following:

- (a) Excavation, removals, disposal, subgrade compaction and rough grading of the existing Site for the construction of asphalt paving, limestone pathway, fencing, planting beds and sodded areas to the design requirements noted on the Drawings, approved on Site by the Contract Administrator, less the appropriate surface finish allowance.
- (b) Stockpile suitable, approved material on Site for reuse (clean topsoil, clean earth fill). Remove and dispose of unsuitable material.
- (c) Removal and disposal of existing wood bollards.
- (d) Removal and disposal of existing chain link fence.
- (e) E20 Toboggan tower revitalization.

Materials

E19.2 All fill materials shall conform to CW 3170

Construction Methods

E19.3 The Contractor shall remove and dispose of all surfaces within the area of work as required to construct all new site work.

E19.4 The Contractor shall construct all sub-grades in accordance with Specification CW 3110. Excavation will be performed as per Item 3.2 of CW 3110. The Contractor shall remove existing pavement in accordance with 3.1 of CW 3110. Unsuitable excavated material shall be disposed of as per Item 3.2 of CW 3110. All surplus material will be disposed of in accordance with Item 3.2 of CW 3110.

E19.5 The Contractor shall restrict his activities strictly to within the limits of the Work, unless receiving prior written approval from the Contract Administrator. The Contractor shall take all precautions to prevent damage to traffic structures, pole lines, existing trees, Site services and adjacent property and he shall be liable for any damages occurring in the performance of this Work.

E19.6 The Contractor shall examine the Site and make themselves familiar with the existing conditions and the nature of the Work to be done.

E19.7 The Contractor shall prevent damage to surface or underground utility lines which are to remain and make good any damage.

- E19.8 Excavated or graded materials to be approved before use as fill for grading Work. Protect such approved material from contamination. Stockpile in approved locations on Site. Protection and stockpiling are incidental to unit prices bid for excavation, removals and rough grading.
- E19.9 The Contractor shall excavate topsoil as per CW 3170 Section 9.2. Topsoil excavation is incidental to the unit prices bid for excavation, removal and rough grading.
- E19.10 The Contractor shall ensure that upon completion of the removal operations the Site is left in a neat condition free from debris, etc. for approval by the Contract Administrator prior to placing base courses and clean fill.
- E19.11 Except for drainage swales, berms and embankments indicated, the design gradient for all other areas shall be considered to be straight grade between the design elevations shown. Changes in grade at swales, berms, embankments and field shall be gently contoured as directed by the Contract Administrator to provide future ease of grass mowing operation.
- E19.12 The Contractor is advised that there may be useable topsoil, clay and gravel fill on Site. All suitable material will be reviewed and approved by the Contract Administrator and then re-used on Site. The re-use of this material on Site may reduce the quantity of imported topsoil, gravel and clean earth fill required. The Contractor shall re-use existing Site material prior to delivering new material to Site.
- E19.13 No direct payment will be made for placing and grading of existing fill as all costs for this Work shall be included in the lump sum bid for rough grading within the limit of the Work.
- E19.14 Compaction shall include the use of sheep's foot or other suitable compaction equipment as approved by the Contract Administrator to achieve a minimum compaction of 98% Standard Proctor Density below all paved areas, and 95% Standard Proctor Density in all other areas disturbed under this Contract.
- E19.15 The Contractor shall construct the compacted sub-grade surface to the following minimum depths below the grades shown on the Drawings for each area:
- | | |
|-----------------------|--------|
| (a) Sodded Areas | 100mm |
| (b) Vine Planting Bed | 500mm |
| (c) Tree Planting Bed | 1000mm |
| (d) Asphalt paving | 450mm |
| (e) Limestone pathway | 225mm |
- E19.16 Following earth moving, rough grading and compaction, the Work areas shall be fine graded with no low areas to hold water. The finished surface of all disturbed areas shall be dragged and smoothed in such a manner that there are no loose soil particles greater than 50mm in maximum dimension.

Measurement and payment

- E19.17 Rough grading will be paid for at the contract lump sum price for "Rough grading" as specified herein, which price shall be payment in full for performing all operations herein and all other items incidental to the Work included in this Specification
- E19.18 No separate measurement or payment shall be made for excavation and rough grading as this Work is incidental to the unit prices bid for supply and installation of the final surface treatment. No separate measurement or payment for relocation of sign and planter.

E20. MATCHING EXISTING GRADES

Wherever the proposed paving, or sod meets existing building edge, doorway, or property line, the Contractor shall construct the proposed element to an acceptable grade, as directed by the Contract Administrator, to ensure that proper drainage and accessibility are maintained.

E21. TOBOGGAN TOWER REFURBISHMENT

- E21.1 Work of this section comprises the furnishing of all labour, equipment and materials incidental and required to complete the refurbishing of the toboggan tower and related Work as shown on the drawings and as hereinafter specified. The Work includes, but not necessarily confined to, the following:
- (a) Remove and deliver toboggan shoot and toboggan shoot support structures. Deliver to City of Winnipeg Centralized Park Services. Contact Jason Bell.
 - (b) Salvage post caps for installation on remaining tower post caps
 - (c) Remove and dispose of dead trees
 - (d) Remove and dispose of all debris around the site
 - (e) Cut, remove and dispose of concrete piles to 600mm below finish grade. Fill holes with approved subgrade material.
 - (f) Supply and install riverbank vegetation
 - (g) Supply and install topsoil and sod
 - (h) Refurbishing of remaining tower:
 - (i) Remove and dispose toboggan launch deck
 - (ii) Repair decking as required
 - (iii) Remove and dispose of metal gate
 - (iv) Supply and install guard rail
 - (v) Replace wood beam at bottom of stairs
 - (vi) Sand all hand rail surfaces to produce a smooth surface
 - (vii) Supply and install cross brace at top step
 - (viii) Install post caps salvaged from toboggan shoot support structures.
 - (ix) Tighten all bolts and fasteners as required. Replace missing fasteners.
 - (x) Ensure all fasteners (screws, nails, etc) are flush to wood surface
 - (xi) Remove and dispose all electrical components (electrical box, conduit, mounting hardware, etc)
- E21.2 Contractor to confirm with Contract Administrator for any work not listed above and deemed necessary for safety prior to any Work on toboggan tower.

Materials

- E21.3 Wood: shall be no. 2 or better wolmanized pressure treated pine; no wane, bark, checking, or splitting permitted.
- (a) All railing and pickets to match existing.
- E21.4 Hardware: all hardware is as follows:
- (a) Nails, spikes, and screws: hot dipped galvanized, size as required by Canadian Building Construction Standards
 - (b) Galvanizing: to CSA G164-M1981; use galvanized fasteners for exterior work

Measurement and Payment

- E21.5 Toboggan tower refurbishing will be paid for at the contract lump sum price for "Toboggan tower refurbishment" as specified herein, which price shall be payment in full for performing all operations herein and all other items incidental to the Work included in this Specification

E22. ASPHALT OVERLAY

E22.1 Further to CW 3410, the Work of this section comprises the furnishing of all labour, equipment and materials incidental and required to complete the construction of asphalt paving on existing compacted gravel base as shown on the drawings and as hereinafter specified including, but not necessarily confined to, the following:

- (a) Test existing gravel base for structure and depth
- (b) Blading, cutting and reshaping of existing gravel base
- (c) Supply and installation $\frac{3}{4}$ down gravel as required to top up existing gravel base to minimum 12" compacted thickness
- (d) Supply and installation of 100mm asphalt paving on upgraded gravel base

E22.2 All work and materials herein described is incidental to the unit prices bid for asphalt overlay

Materials

All materials as per CW 3410 and CW 3110

Installation

E22.3 Preparation of existing gravel base

- (a) Contractor to extract three (3) cores from existing gravel base and test for structure and depth of material. As much as possible, cores to be representative of entire roadway.
- (b) Existing gravel base to be bladed, cut and reshaped to provide a smooth, crowned surface with positive drainage from center of roadway.
- (c) Where less than 12" deep, top up existing gravel base with $\frac{3}{4}$ " down compacted gravel to ensure 12" minimum gravel base.

E22.4 Asphalt paving on gravel base as per CW 3410.

Method of Payment

E22.5 Supply and Installation of Asphalt Overlay will be measured on a square meter basis. The number of area to be paid shall be the total area supplied and installed in accordance with the Drawings and Specifications and as measured and accepted by the Contract Administrator. Supply and Installation of Asphalt Overlay will be paid for at the Contract Unit Price per unit type and size specified for " of "Supply and Install Heavy Duty Asphalt on Existing Compacted Gravel Base", 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.

E23. LIMESTONE PATHWAY

E23.1 Further to CW 3110 and CW 3130 the Work of this section comprises the furnishing of all labour, equipment and materials incidental and required to complete the construction of limestone pathway as shown on the drawings and as hereinafter specified including, but not necessarily confined to, the following:

- (a) Supply and installation of separation/reinforcement geotextile
- (b) Supply, placement and compaction of granular base course
- (c) Supply, placement and compaction of leveling course
- (d) Supply, placement and compaction of limestone fines.

E23.2 All work and materials herein described is incidental to the unit prices bid for limestone pathway.

Materials

E23.3 All Materials supplied under this Specification shall be of a type approved by the Contract Administrator and shall be subject to inspection and testing by the Contract Administrator.

E23.4 Crushed granular material to meet the following requirements:

- (a) Crushed limestone consisting of hard, durable, angular particles, free from clay lumps, cementation, organic material, frozen material and other deleterious materials.
- (b) Granular Levelling Course - Gradations to be within limits specified below when tested to ASTM C136-83 and have a smooth curve without sharp breaks when plotted on semi-log grading chart;

<u>ASTM Sieve Designation</u>	<u>% Passing</u>
20mm (3/4")	100
12.5mm (1/2")	50-75
9.5mm	30-50
6.0mm	10-20
0.425	0-5
0.18	nil
0.075	nil

- (c) Crushed Limestone Fines –1/4" (6mm) down.

E23.5 Geotextile as per City of Winnipeg Specification CW 3130.

E23.6 If materials have been tested by an independent testing laboratory within previous 2 months and have successfully passed tests equal to requirements of this specification, submit test certificates from testing laboratory showing suitability of materials for this project.

Installation

E23.7 No construction is to be done until subgrade is inspected and approved by the Contact Administrator.

E23.8 Construction activity to remain within limits of limestone pathway to minimize damage to adjacent sod and vegetation.

E23.9 General pathway construction requirements:

- (a) Subgrade is to be shaped to ensure positive drainage to river. Where pathway finish grade is flush to grade ensure subgrade is sloped to river or drain tile at minimum 2%.
- (b) Compact subgrade to min. 98% standard proctor density.
- (c) Add crushed granular material as required to replace unsuitable subgrade material. Place in layers not exceeding 150mm thickness and compact to 98% standard proctor.
- (d) Supply and place geotextile over subgrade continuous up sides of excavation.
- (e) Supply, place and compact subbase material for at grade pathway to depth as shown on the Drawings. Compact to 98% standard proctor density.
- (f) Place crushed granular levelling course material to a minimum compacted thickness as shown on the drawings. Compact to 98% standard proctor density.
- (g) Crushed Limestone fines to a minimum compacted thickness of 25mm as finishing course. Compact to 98% standard proctor density.

E23.10 Subgrade inspection and installation of Geotextile

- (a) Verify grades of compacted subgrade (to 100% SPD) for conformity with elevations and sections before placing granular material.
- (b) Proof roll graded subgrade to check for unstable areas, obtain approval of subgrade by Contract Administrator before placing granular base.

- (c) Remove and dispose of unsuitable sub base material as directed by Contract Administrator.
- (d) Install geotextile as specified on the drawings to City of Winnipeg standards and specifications

Field Quality Control

E23.11 Inspection and testing of crushed stone paving will be carried out by designated testing laboratory, cost of testing to be paid for by cash allowance as directed by the Contract Administrator.

Acceptance

E23.12 Any Work not satisfactory as specified herein and as determined by the Contract Administrator for initial testing, shall be rectified by the Contractor. This process of inspection and correction shall continue until the Contract Administrator is satisfied that the Work is 100% complete and as per the construction drawings and specifications. All additional tests for failed or unacceptable results will be borne solely by the Contractor.

Method of Payment

E23.13 Supply and Installation of Limestone Pathway will be measured on a square meter basis. The number of area to be paid shall be the total area supplied and installed in accordance with the Drawings and Specifications and as measured and accepted by the Contract Administrator. Supply and Installation of Limestone Pathway will be paid for at the Contract Unit Price per unit type and size specified for "Supply and Install Limestone Pathway", 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.

E24. SITE FURNITURE

Description

- E24.1 This specification covers the delivery and installation of:
- (a) Tache style recycled plastic bench with concrete base
 - (b) Side opening metal slat type waste receptacle with concrete base.

General

- E24.2 Store units in a protected location, immediately upon arrival on the Site.
- E24.3 Remove from Site any units that have been damaged during transportation and replace.

Products

E24.4 Recycled Plastic Bench – 1.83m length Tache Style composite benches with back and armrests (black) supplied by:

Aaron Lennon @ 986-5505
Supervisor of Central Repair/Manufacturing Facility
City of Winnipeg
Fleet Management Agency Division
Public Works Department
215 Tecumseh St.
Winnipeg, MB R3E 3S4

E24.5 Waste Receptacle – side opening metal slat type (black) supplied by:

Aaron Lennon @ 986-5505
Supervisor of Central Repair/Manufacturing Facility

City of Winnipeg
Fleet Management Agency Division
Public Works Department
215 Tecumseh St.
Winnipeg, MB R3E 3S4

Installation

- E24.6 Construct concrete bases for benches as per SCD-120A and waste receptacle as per SCD-119.
- E24.7 Bench and waste receptacle to be installed as per City of Winnipeg Specifications and details.
 - (a) Tache Bench SCD-120A
 - (b) Waste Receptacle Side Opening Metal Slat Type-SCD-119
- E24.8 Protect and maintain Site furnishings, including accessories, until acceptance of project Work.
- E24.9 Immediately remove from Site, damaged furnishing and accessories. Replace, repair, re-finish, or otherwise make good to approval of Contract Administrator.
- E24.10 No separate payment will be made for concrete bases for site furniture. All Work is incidental to the unit prices bid for the items.

Measurement and Payment

- E24.11 Delivery and installation of Tache bench will be measured and paid for at the contract unit price per item for "Delivery and Install bench", measured as specified herein and accepted by the Contract Administrator.
- E24.12 Delivery and installation of Waste Receptacle Side Opening Metal Slat Type will be measured and paid for at the contract unit price per item for "Pick up and Install waste receptacle", measured as specified herein and accepted by the Contract Administrator.

E25. FENCING AND GATES

Description

- E25.1 The specification generally describes the supply and installation of wood post and wire panels for living fence, vehicular gate, man gate and 200mm wood bollards with 6mm galvanized steel chain as shown on the drawings and as specified herein including all hardware and fastening required, and granular foundations.

Shop Drawings

- E25.2 Contractor to provide shop drawings showing all fastenings, hinges, etc. for welded wire fence, vehicular gate, man gate and wood bollards for review and approval by City of Winnipeg and Contract Administrator prior to fabrication.

Materials

- E25.3 Wood Posts for fences shall be no. 2 or better wolmanized pressure treated pine; no wane, bark, checking, or splitting permitted.
 - (a) All posts shall be D4S with sound square edges
- E25.4 Wood Bollards to be of NGLA standard Grading Rules for Canadian Lumber Select No. 2 or better, ACQ Pressure Treated Spruce, 200 dia. size. Wood shall be smooth and free of rough areas.

- E25.5 Hardware: all hardware is as follows:
- (a) Nails, spikes, and screws: hot dipped galvanized, size as required by Canadian Building Construction Standards
 - (b) Bolts: galvanized; 19 mm in diameter unless otherwise specified, complete with nuts and washers
 - (c) Galvanizing: to CSA G164-M1981; use galvanized fasteners for exterior work
 - (d) Fasteners indicated on shop drawing or specified by the Owner (no substitutes)
 - (e) 10mm steel plate
 - (f) Locking hardware for gates
 - (g) 7" dia. wheels and anchor rods
 - (h) Chain shall be 6mm diameter, hot dip galvanized steel. All connecting hardware to be galvanized.
 - (i) Chain reflector as per City of Winnipeg standards
- E25.6 Wood preservative: surface applied wood preservative; coloured, or copper naphthenate or 5% pentachlorophenol solution, water repellent preservative.
- E25.7 Base Course and Backfill: shall be ¾" diameter crushed limestone compacted in 6" lifts:
- E25.8 Wire panels to be custom prefabricated panels by Bestway Fence Systems. Contact Denny Besson, (204) 668-9077.

Construction Methods

- E25.9 All lumber shall be neatly cut for a proper fit. All cuts on pressure treated wood shall be treated with preservative before being secured.
- E25.10 Fence to be constructed to the lines, and specifications as shown in the drawings or as specified herein. Establish final grades and alignment for fences to be set by Site Works Contractor and Client
- E25.11 Wood bollards to be constructed to the lines, and specifications as shown in the drawings or as specified herein. Establish final grades and alignment for fences to be set by Site Works Contractor and Client
- E25.12 Bollards to receive galvanized steel chain to be pre-drilled as per the drawings
- E25.13 The contractor shall stake out all post locations as located on the Drawings for review and approval by Contract Administrator and Owner prior to installation. Prior to drilling holes, all underground services shall be located and protected. Fence support posts shall be set true in line and elevation. Factory treated end of post shall always be placed down in excavated hole prior to backfilling, under no circumstance shall a cut end of a post be placed down into an excavated hole. Treat all cuts or cut tops of pressure treated wood with preservative prior to any other lumber being secured to the post. Install posts plumb and level to the lines and grades required by the work
- E25.14 Backfill hole excavations as shown on drawings
- E25.15 All wood shall be even and neat and shall provide a solid finished product suitable for the purposes intended
- E25.16 Bollards to receive galvanized steel chain to be pre-drilled as per the drawings. Secure end of galvanized steel chain to bollards with 2 – 90mm galvanized steel nails. Drape chain as approved by contract administrator. Secure reflector on chain as approved by contract administrator.

E25.17 Install spanning members with back edge facing out from posts

E25.18 Surface Applied Wood Preservative

- (a) Treat all cut, trimmed, or drilled pressure treated wood with liberal brush application of preservative before installation. Apply preservative by dipping or by brushing to completely saturate and maintain wet film on surface for minimum 3 minute soak

Measurement and Payment

E25.19 Supply and installation of Welded Wire fence will be measured and paid on a linear meter basis at the contract unit price per linear metre for "Supply and install welded wire fence and gates". The length to be paid for shall be the total number of metres supplied in accordance with the specifications and accepted by the Contract Administrator, as computed from measurements made by the Contract Administrator.

E25.20 Supply and installation of wood bollard will be measured and paid on a unit basis at the contract unit price for "Supply and install wood bollard" in accordance with the specifications and accepted by the Contract Administrator, as computed from measurements made by the Contract Administrator.

E26. PLANTING BED PREPARATION

Description

E26.1 The following list generally describes the scope of this Section:

- (a) Cultivate subsoil;
- (b) Supply and install standard City of Winnipeg wood chip mulch;
- (c) Supply and install planting soil mixture;

E26.2 Submit to the Contract Administrator samples of the following materials:

- (a) Planting soil mixture: 1 kg
- (b) Wood chip mulch: 500 g

Materials

E26.3 Planting Soil: For mix imported topsoil with 20% peatmoss loose by volume, and 5% sand loose by volume. Incorporate bonemeal into planting soil at rate of 5 lbs /cu.yd. of soil mixture. Planting soil items to be comprised as follows:

- (a) Peatmoss: horticultural grade Class "A" decomposed plant material, fairly elastic and homogeneous. Free of decomposed colloidal residue, weed, sulphur and iron. To have pH value of 5.9 to 7.0, 60% organic matter by weight, moisture content not exceeding 15% and water absorption capacity of not less than 300% by weight on oven dry basis.
- (b) Bonemeal: shall be raw bonemeal, finely ground with a minimum analysis of 3% nitrogen and 20% phosphoric acid.
- (c) Imported topsoil: natural, fertile, agricultural soil typical of locality, capable of sustaining vigorous plant growth, from well drained Site that is free of flooding, not in frozen or muddy condition, not less than 6% organic matter to a maximum 25% organic matter by volume, and pH value of 5.9 to 7.0. Free from subsoil, slag or clay, stones, lumps, live plants and their roots, sticks, crabgrass, couchgrass, noxious weeds and foreign matter.
- (d) Sand: hard, granular natural beach sand, washed free of impurities, chemical or organic matter.

E26.4 Fertilizer: commercial type with 50% of the elements derived from organic sources. Deliver and store fertilizer in waterproof bags showing weight, analysis and name of manufacturer.

E26.5 Standard City of Winnipeg wood chip mulch.

Construction Methods

- E26.6 Remove debris, broken roots, branches, stones in excess of 50mm diameter and other deleterious materials. Remove subsoil that has been contaminated with oil, gasoline or calcium chloride. Dispose of removed materials as directed.
- E26.7 Excavate planting beds to depths as per the Drawings. Confirm excavation on site with Contract Administrator.
- E26.8 Do not spread planting soil mixture until Contract Administrator has inspected excavation.
- E26.9 Mix fertilizer at manufacturer's recommended rate of application. Mix fertilizer thoroughly into upper 150mm of planting soil to be placed.
- E26.10 Spread planting soil mixture with adequate moisture in uniform layers during dry weather over approved, dry, unfrozen sub-grade, where planting is indicated.
- E26.11 Bring planting soil mixture up to 100 mm below finished grade in beds.
- E26.12 Remove stones, roots, grass, weeds, construction materials, debris and foreign non-organic objects from soil mixture.
- E26.13 Fine grade entire planting soil area. Eliminate rough spots.
- (a) Compact planting soil to leave surface smooth, uniform, firm against deep foot printing, with a fine, loose texture. Tolerance: plus or minus 15mm of design grade.
 - (b) Supply and install 100mm wood chip mulch in planting beds.

Measurement and Payment

- E26.14 Planting bed preparation will be measured and paid on an area basis at the Contract unit price per square metre for "Supply and install 450mm depth planting bed" and "Supply and install 900mm depth planting bed" which 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. The area to be paid for shall be the total number of square metres in place in accordance with this Specification acceptable to the Contract Administrator, as computed from measurements made by the Contract Administrator.

E27. PLANT MATERIAL

Description

- E27.1 The following list generally describes the scope of this section:
- (a) Supply and planting of trees and vines;
 - (b) Maintenance to date of substantial performance;
 - (c) Warranty for two full years.

General

- E27.2 Obtain approval of plant material at source.
- E27.3 Notify Contract Administrator of source of material at least 7 days in advance of shipment. No Work under this Section is to proceed without approval.
- E27.4 Acceptance of plant material at source does not prevent rejection at Site prior to or after planting operations.
- E27.5 Source of all plant material to be from an area within the same hardiness zone and soil conditions as Winnipeg.

Shipment and Pre-Planting Care

- E27.6 Co-ordinate shipping of plants and excavation of holes to ensure minimum time lapse between digging and planting. Tie branches of trees and vines securely and protect plant material against abrasion, exposure and extreme temperature change during transit. Avoid binding of planting stock with rope or wire which would damage bark, break branches or destroy natural shape of plant. Give full support to root ball of large trees during lifting.
- E27.7 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.
- E27.8 Remove broken and damaged roots with sharp pruning shears. Make clean cut and cover cuts over 50 mm diameter with wound dressing.
- E27.9 Keep roots moist and protected from sun and wind. Heel-in vines, which cannot be planted immediately, in shaded areas, and water well.

Materials

Water

- E27.10 Water should be potable and free of minerals, which may be detrimental to plant growth.

Anti-Desiccant

- E27.11 Anti-desiccant should be wax-like emulsion to provide film over plant surface reducing evaporation but permeable enough to permit transpiration.

Wound Dressing

- E27.12 Wound dressing should be horticulturally accepted non-toxic, non-hardening emulsion.

Plant Material

- E27.13 Quality and Source: Comply with City of Winnipeg tree planting guidelines, referring to size and development of plant material and root ball. All plant material to be approved by City and Contract Administrator at source.
- E27.14 Plant Species as per plant list on Drawings.
- E27.15 Measure plants when branches are in their natural position. Height and spread dimensions refer to main body of plant and not from branch tip to branch tip. Use trees of No. 1 grade.
- E27.16 Additional plant material qualifications:
- (a) Trees must have been root pruned regularly, but not later than one growing season prior to arrival on Site.

Cold Storage

- E27.17 Approval required for plant material, which has been held in cold storage.

Container – Grown Stock

- E27.18 Acceptable if containers large enough for root development. Vines must have grown in container for minimum of one growing season but not longer than two. Root system must be able to "hold" soil when removed from container. Plants that have become root bound are not acceptable. Container stock must have been fertilized with slow releasing fertilizer.

Substitutions

E27.19 Substitutions to plant material as indicated on plantings plan are not permitted unless written approval has been obtained as to type, variety and size prior to award of Contract. Plant substitutions must be similar species and of equal size to those originally specified.

Root balls

E27.20 Coniferous trees in excess of 3 m height must have been dug with large firm ball. Root balls must include 75% of fibrous and feeder root system. This excludes use of native trees grown in light sandy or rocky soil. Lift root ball from hole, place in wire basket designed for purpose and line with burlap. Secure root balls with burlap, heavy twine and wire basket. Protect root balls against sudden changes in temperature and exposure to heavy rainfall. Take care not to injure trunk of tree with wire basket ties or rope.

E27.21 Tree spade material shall not be accepted unless dug in field and secured as above.

Construction Methods

Workmanship

E27.22 Stake out location of trees and vines as per the Construction Drawings. Obtain approval by the City and Contract Administrator prior to excavating.

E27.23 Apply anti-desiccant in accordance with material manufacturer's instructions only as required.

E27.24 Co-ordinate operations. Keep Site clean and planting holes drained. Immediately remove soil or debris spilled onto pavement.

Planting Time

E27.25 Plant deciduous plant material during dormant period, before buds have broken. Plant material noted for spring planting only, must be planted in dormant period.

E27.26 When permission has been obtained to plant materials after buds have broken, spray plants with anti-desiccant to slow down transpiration prior to transplanting.

E27.27 When permission has been obtained, vines growing in containers may be planted throughout growing season.

E27.28 Plant only under conditions that are conducive to health and physical conditions of plants.

E27.29 Provide planting schedule. Executing planting operations over long period using limited crew will not be accepted.

Excavations

E27.30 Prepare planting areas as shown on the Drawings.

E27.31 Protect bottom of excavations against freezing.

E27.32 Remove water, which enters excavations prior to planting. Ensure source of water is not ground water.

Planting

E27.33 Scarify sides of planting hole to depth of 150mm where tree is planted in isolated tree pit.

E27.34 Plant trees and vines vertically with roots placed straight out in hole. Orient plant material to give best appearance in relation to structure, roads and walks.

- E27.35 Place plant material to depth equal to depth they were originally growing in nursery. Allow for soil settlement in planting.
- E27.36 With balled and burlapped roots balls, loosen burlap and cut away minimum top 1/2 without disturbing root ball. Cut vertical slits in remaining burlap around root ball at 250mm intervals. Remove all rope, string, or other ties from around trunk. Do not pull burlap or rope from under root ball. With container stock, remove entire container without disturbing root ball. Non bio-degradable wrappings must be removed including wire baskets.
- E27.37** Tamp planting soil around root system in layers of 150mm 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.
- E27.38** Build 100mm deep saucer around outer edge of hole to assist with maintenance watering. Install 100mm depth wood chip mulch in saucer as shown on drawings.
- E27.39 When planting is completed, give surface of planting saucer dressing of organic 10-6-4 fertilizer at rate of 12 kg/100 m for planting beds or 40 to 50 g/mm of calliper for trees. Mix fertilizer thoroughly with top layer of planting soil and water in well.

Pruning

- E27.40 Prune trees and vines after planting only as required to remove broken diseased or dead branches. Employ clean sharp tools and make cuts flush with main branch, smooth and sloping as to prevent accumulation of water.

Maintenance

- E27.41 After completion of planting operation to the satisfaction of the Contract Administrator and City of Winnipeg, the Contractor shall be responsible for the maintenance of the plant material until date of Substantial Performance and commencement of two year warranty.
- E27.42 Replace any dead or damaged plant material during the maintenance period, including replacement of vandalized material.
- E27.43 Water sufficiently to maintain optimum growing conditions. Ensure adequate moisture in root zone at freeze-up.
- E27.44 The Contractor shall provide all necessary equipment, including: tractors, mowers, hand mowers, trimmers, fertilizer spreaders, pruning tools, hoses, water meters, and any other items necessary for the maintenance of the plant material indicated in this Specification.
- E27.45 Remove all weeds and debris from mulch beds, planting beds and tree wells on a weekly basis.
- E27.46 Turn and top up mulch in beds and tree wells each spring and prior to start of extended maintenance.

Personnel

- E27.47 The Contractor shall provide all necessary personnel for the ongoing maintenance operations.
- E27.48 Personnel should have at least one year of experience in landscape maintenance and should be under the direction of a foreman, in all cases, with not less than five (5) years of experience with similar maintenance operations.

Maintenance Methods

Watering

- E27.49 Trees shall be watered twice weekly, or during the summer, if temperatures are fairly high and there has been no rainfall, water approximately once a week.

E27.50 To determine the need for watering, make a soil test weekly with a one-inch auger. Take a test sample from both the planting soil and from the root ball by drilling to a minimum depth of 600 mm. The soil shall contain enough moisture to hold together when compressed in the hand, but not be muddy.

Fertilizing

E27.51 Because of the specialized nature of such operations, fertilizing is to be done by a qualified local arborist.

E27.52 Fertilize in the fall over the surface of the ground surrounding the plants, then soak the area thoroughly, use 10-6-4 analysis fertilizer spreading a maximum of 0.13 kg per square metre.

Spraying

E27.53 Spray trees to control insect pests and diseases. Use horticulturally recommended compounds specific for the problem to be contained.

Insects and Diseases

E27.54 Spray plants to combat pests and diseases. Do not use DDT or sprays prohibited by Agriculture Canada.

Measurement and Payment

E27.55 Supply and Installation of Plant Material will be measured on a unit basis. The number of units to be paid shall be the total number of each type and size of units supplied and installed in accordance with the Drawings and Specifications and as measured and accepted by the Contract Administrator. Supply and Installation of Plant Material will be paid for at the Contract Unit Price per unit type and size specified for "Supply and install plant material", 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.

E28. TOPSOIL AND FINISH GRADING

E28.1 All Work to be to CW 3510.

Measurement and Payment

E28.2 There shall be no separate measurement for the Work associated with this Specification.

E28.3 Payment for Work specified under this Specification is to be included with the price for Sodding.

E29. SODDING

E29.1 All Work to be to CW 3510.

Measurement and Payment

E29.2 Sodding will be measured on an area basis. The area to be paid for shall be the total number of square meters sodded and maintained in accordance with this Specification and accepted by the Contract Administrator, as computed from measurements made by the Contract Administrator. Sodding will be paid for at the Contract Unit Price per square metre for 'Supply and Install topsoil and sod', measured as specified herein, which price shall be payment in full for completing all operations herein described and all other items incidental to the Work included in this Specification.

E30. EXTENDED MAINTENANCE

Description

E30.1 The Specification shall deal with the maintenance of the Trees, Vines and Planting Beds for Two (2) calendar years after the date of Substantial Performance.

Materials and Personnel

E30.2 The Contractor shall provide all necessary equipment, including: tractors, trimmers, fertilizer spreaders, pruning tools, water trucks, hoses, water meters, and any other items necessary for the maintenance of the area indicated in this Specification.

E30.3 The Contractor shall provide all necessary personnel for the ongoing maintenance operations.

Work Included

E30.4 The following areas shall be part of the maintenance jurisdiction:

(a) The trees and sodded areas as indicated on the Construction Drawings

E30.5 Maintenance of Plant Material

(a) All trees and vines shall be watered bi-weekly, or during the summer, if temperatures are fairly high and there has been no rainfall, water approximately once a week. Where irrigation is not available this should be executed by leaving a hose, with a gentle rate of flow, running into the saucer of the root ball for about one hour.

(b) To determine the need for watering, make a soil test weekly with a one-inch auger. Take a test sample from both the planting soil and from the root ball by drilling to a minimum depth of 600 mm. The soil shall contain enough moisture to hold together when compressed in the hand, but shall not be muddy.

(c) Fertilizing, Pruning and Spraying Deciduous Trees and vines. Because of the specialized nature of such operations, this should be done by a qualified local arborist.

(d) Fertilize in the fall over the surface of the ground surrounding the plants, and then soak the area thoroughly. Use 10-6-4 analysis fertilizer spreading a maximum of 0.13kg per square meter.

(e) Spray trees and vines to control insect pests and diseases. Use horticulturally recommended compounds specific for the problem to be contained.

(f) Supply and install protective tree wrap on ornamental deciduous tree trunks to prevent winter scalding. Remove tree wrap in spring.

(g) Tighten, or remove, turnbuckles or guy wires for trees as required or directed by the Contract Administrator.

(h) Straighten trees as required and directed by the Contract Administrator.

E30.6 The Contractor shall agree and guarantee to replace and replant any nursery stock found dead or in poor condition at the completion of the maintenance period. "Poor Condition" shall be interpreted as meaning nursery stock in which branches are dead or dying, or have not shown satisfactory growth of leaves. All replacements shall be of same size and species, as specified.

E30.7 Upon the end of the required maintenance period, a Site inspection shall be held. If at this time, all Material and Works is satisfactory the Contract for maintenance and warranty shall be terminated.

E30.8 Maintenance of Planting Bed

E30.8.1 Planting beds are to be weeded on a weekly basis. Contractor to remove and dispose of weeds.

E30.8.2 Wood Chip mulch is to be turned over in spring and fall. Top up wood chips as required ensuring 100mm depth is maintained.

E30.8.3 Remove and dispose of all garbage from planting beds on a weekly basis.

E30.8.4 Edge beds in spring each year. Provide smooth even lines for bed.

E30.8.5 Maintenance of planting beds incidental to plant material and maintenance.

Measurement and Payment

E30.9 Extended Maintenance will be measured and paid on a per year basis in accordance with this Specification and as accepted by the Contract Administrator. Extended Maintenance will be paid for per year for unit price each year for "Extended Maintenance of Plant Material"; which 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.