



THE CITY OF WINNIPEG

BID OPPORTUNITY

BID OPPORTUNITY NO. 593-2017

LOUISE PAGE PARK – PARK REDEVELOPMENT

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PART B - BIDDING PROCEDURES

B1. CONTRACT TITLE

B1.1 LOUISE PAGE PARK – PARK REDEVELOPMENT

B2. SUBMISSION DEADLINE

B2.1 The Submission Deadline is 4:00 p.m. Winnipeg time, September 5, 2017.

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

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

B3. SITE INVESTIGATION

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

B4. ENQUIRIES

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

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.
- 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. DISCLOSURE

- B11.1 Various Persons provided information or services with respect to this Work. In the City's opinion, this relationship or association does not create a conflict of interest because of this full

disclosure. Where applicable, additional material available as a result of contact with these Persons is listed below.

B11.2 The Persons are:

- (a) Posttech Screw Piles Manitoba

B12. QUALIFICATION

B12.1 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.

B12.2 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>

B12.3 The Bidder and/or any proposed Subcontractor (for the portion of the Work proposed to be subcontracted to them) shall:

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

B12.4 Further to B12.3(c), the Bidder shall, within five (5) Business Days of a request by the Contract Administrator, provide proof satisfactory to the Contract Administrator that the Bidder/Subcontractor has a workplace safety and health program meeting the requirements of The Workplace Safety and Health Act (Manitoba), by providing:

- (a) Written confirmation of a safety and health certification meeting SAFE Work Manitoba's SAFE Work Certified Standard (e.g., COR™ and SECOR™) or
 - (i) 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
 - (ii) 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
- (b) a report or letter to that effect from an independent reviewer acceptable to the City. (A list of acceptable reviewers and the review template are available on the Information Connection page at The City of Winnipeg, Corporate Finance, Materials Management Division website at <http://www.winnipeg.ca/matmgt/>.)

B12.5 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.

B12.6 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.

B13. OPENING OF BIDS AND RELEASE OF INFORMATION

B13.1 Bids will not be opened publicly.

B13.2 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/>

B13.3 The Bidder is advised that any information contained in any Bid may be released if required by The Freedom of Information and Protection of Privacy Act (Manitoba), by other authorities having jurisdiction, or by law or by City policy or procedures (which may include access by members of City Council).

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 B12 **(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.

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

- (a) Removals;
- (b) Granular Pavement;
- (c) Planting Bed Installation;
- (d) Arbour Construction;
- (e) Dedication Boulder;
- (f) Site Furnishings;
- (g) Post Bollards & Vehicular Access Gate
- (h) Perennial Plantings;
- (i) Soil and Sod.

D3. DEFINITIONS

D3.1 When used in this Bid Opportunity:

- (a) "**CW**" means current City of Winnipeg Standard Construction Specification;
- (b) "**SD**" means current City of Winnipeg Standard Construction Detail;
- (c) "**SCD**" means current Parks Planning City of Winnipeg Standard Construction Detail Drawings..

D4. CONTRACT ADMINISTRATOR

D4.1 The Contract Administrator is:

Lindsay Lagman
Landscape Designer
Telephone No. 204 986-4699
Email Address LLagman@winnipeg.ca

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

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

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
- D7.1 Bids Submissions must not be submitted to the above facsimile numbers. Bids must be submitted in accordance with B8.**

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/matmgt/Safety/default.stm>

D10. INSURANCE

- D10.1 The Contractor shall provide and maintain the following insurance coverage:
- (a) commercial general liability insurance, in the amount of at least two million dollars (\$2,000,000.00) inclusive, with The City of Winnipeg added as an additional insured, with a cross-liability clause, such liability policy to also contain contractual liability, unlicensed motor vehicle liability, non-owned automobile liability 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.

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

D13.3.1 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 within Ten (10) consecutive Working Days of the commencement of the Work as specified in D13.

D14.2 When the Contractor considers the Work to be substantially performed, the Contractor shall arrange, attend and assist in the inspection of the Work with the Contract Administrator for purposes of verifying Substantial Performance. Any defects or deficiencies in the Work noted during that inspection shall be remedied by the Contractor at the earliest possible instance and the Contract Administrator notified so that the Work can be reinspected.

D14.3 The date on which the Work has been certified by the Contract Administrator as being substantially performed to the requirements of the Contract through the issue of a certificate of Substantial Performance is the date on which Substantial Performance has been achieved.

D15. TOTAL PERFORMANCE

D15.1 The Contractor shall achieve Total Performance within Fifteen (15) consecutive Working Days of the commencement of the Work as specified in D13.

D15.2 When the Contractor or the Contract Administrator considers the Work to be totally performed, the Contractor shall arrange, attend and assist in the inspection of the Work with the Contract Administrator for purposes of verifying Total Performance. Any defects or deficiencies in the Work noted during that inspection shall be remedied by the Contractor at the earliest possible instance and the Contract Administrator notified so that the Work can be reinspected.

D15.3 The date on which the Work has been certified by the Contract Administrator as being totally performed to the requirements of the Contract through the issue of a certificate of Total Performance is the date on which Total Performance has been achieved.

D16. LIQUIDATED DAMAGES

D16.1 If the Contractor fails to achieve Substantial Performance in accordance with the Contract by the day fixed herein for Substantial Performance, the Contractor shall pay the City Five Hundred dollars (\$500.00) per Working Day for each and every Working Day following the day fixed herein for Substantial Performance during which such failure continues.

D16.2 The amount specified for liquidated damages in D16.1 is based on a genuine pre-estimate of the City's damages in the event that the Contractor does not achieve Substantial Performance by the day fixed herein for same.

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

D17. SCHEDULED MAINTENANCE

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

- (a) Perennial Planting as specified in **E16**; and
- (b) Sod as specified in **E18**.

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 B12.4, 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 B12.4.

D21. PLANT AND MATERIALS

D21.1 Plant and Material that is the property of the City shall not be removed from the Site, disposed of or used except for the purposes of the Work without the prior consent of the Contract Administrator.

D22. SAFETY

D22.1 Further to C6, the Contractor shall be solely responsible for safety at the Site and for compliance with all laws, rules, regulations and practices required by the applicable safety legislation.

D22.2 The Contractor shall be solely responsible for securing the Site, and any existing facility thereon, and for the proper care and protection of the Work already performed.

D22.3 The Contractor shall do whatever is necessary to ensure that:

- (a) no person, property, right, easement or privilege is injured, damaged or infringed by reason of the Contractor's activities in performing the Work;
- (b) the health and safety of all persons employed in the performance of the Work or otherwise is not endangered by the method or means of its performance;
- (c) adequate medical services are available to all persons employed on the Work and at all times during the performance of the Work;
- (d) adequate sanitation measures are taken and facilities provided with respect to the Work.
- (e) pedestrian and other traffic on any public or private road or waterway is not unduly impeded, interrupted or endangered by the performance or existence of the Work or Plant;
- (f) fire hazards in or about the Work are eliminated.

D23. SITE CLEANING

D23.1 The Contractor shall maintain the Site and the Work in a tidy condition and free from the accumulation of waste and debris, other than that caused by the City or by other contractors.

D23.1.1 As the Work progresses, the Contractor shall remove any Plant and Material not required for the performance of the remaining Work. He shall also remove waste and debris other than that caused by the City or other contractors, and leave the Site and the Work clean and suitable for occupancy by the City unless otherwise specified.

D23.1.2 Total Performance shall not be considered to have been achieved until the Contractor has cleaned up the Site and has removed all Plant, surplus Material, waste and debris, other than that left by the City or other contractors.

D24. INSPECTION

D24.1 Before beginning or resuming operations upon any portion of the Work, the Contractor shall notify the Contract Administrator so as to enable him to arrange for inspection. If the Contractor fails to notify the Contract Administrator, the Contractor shall, if and when required by the Contract Administrator, forthwith take down or expose and redo that portion of the Work required to facilitate inspection. The cost of such taking down or exposure, and redoing, if any, shall be borne by the Contractor.

D24.2 If and when required by the Contract Administrator, the Contractor shall take down or expose forthwith any portion of the Work where the Contract Administrator determines that the Work is not in accordance with the Contract. The cost of such taking down or exposure, and redoing, if any, shall fall upon the City if the taking down or exposure indicates that the portion exposed was properly performed, but if otherwise the cost shall be borne by the Contractor.

D25. DEFICIENCIES

D25.1 Further to C11, the Contract Administrator may order the Contractor to alter or improve his methods, to increase or improve his Plant, to furnish additional or more suitable Material, or to employ additional or more qualified labour if, at any time, the Contract Administrator determines that:

- (a) the Work is not being, or will likely not be, performed satisfactorily; or
- (b) progress is not being, or will likely not be, maintained in accordance with the work schedule.

D26. PAYMENT

D26.1 Further to C12, the City may at its option pay the Contractor by direct deposit to the Contractor's banking institution.

WARRANTY

D27. WARRANTY

D27.1 Warranty is as stated in C13.

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. 593-2017

LOUISE PAGE PARK – PARK REDEVELOPMENT

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. 593-2017
LOUISE PAGE PARK – PARK REDEVELOPMENT

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>
L.54-A1	Demolition and Removals
L.54-A2	Layout & Materials Plan
L.54-A3	Planting Plan & Details
L.54-A4	Details
L.54-A5	Details
SD-243	Sodding Details
SCD-105B	Post Bollard
SCD-105G	Post and Chain Fencing for Vehicular Access
SCD-119	Waste Receptacle with Side Opening Metal Slat Type
SCD-121A	Tache Bench Composite with Arms
SCD-501	Preparation of Planting Area
SCD-646	Parkway Path Crushed Limestone

E2. EXISTING SERVICES AND UTILITIES

- E2.1 No responsibility will be assumed by the City 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 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.

E3. ACCESS TO SITE

- E3.1 Access to the Site as required by the Contractor shall be provided and maintained by the Contractor at his/her own expense and approved by the Contract Administrator.
- E3.2 The Contractor's operations shall be limited to the minimum area necessary for undertaking the Work and he/she shall be responsible for all damage resulting from his/her Work on private property.

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

- E4.1 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.

- E4.2 The Contractor shall comply with all laws, ordinances, rules and regulations that would relate to the Work.
- E4.3 All notices, consents, approvals, statements, authorizations, documents or other communications to the City shall be submitted to the Contract Administrator.
- E4.4 All Work shall be performed in compliance with the Manitoba Workplace Health and Safety Act.
- E4.5 All Work shall be performed in compliance with the Manitoba Workplace Health and Safety Fall Protection guidelines.
- E4.6 The Contractor and 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.

E5. DAMAGE TO EXISTING STRUCTURES, TREES AND PROPERTY

- E5.1 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 City of Winnipeg Contract Administrator, and the cost of which shall be borne entirely by the Contractor. The Contractor shall also indemnify and save harmless the City from all claims made directly or indirectly against it in respect to any such damage.
- E5.2 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 25x100x2400 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.
- E5.3 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.
- E5.4 No separate measurement or payment will be made for the protection of trees.

E6. PEDESTRIAN SAFETY AND TRAFFIC MANAGEMENT

- E6.1 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/she

is working near them. Any damage caused by the negligence of the Contractor or his/her Sub-Contractors to the adjacent Works or properties, shall be promptly repaired by him at his/her own expense, to the satisfaction of the Contract Administrator.

E6.2 Ambulance/ Emergency vehicle access must be maintained at all times.

E7. PROTECTION OF THE SURVEY INFRASTRUCTURE

E7.1 Notwithstanding clause 4 "Persons and municipalities to protect Outline Monuments"; under [The Surveys Act](#), of Manitoba, the Contractor shall be responsible to protect the Survey Infrastructure from damage as a result of the Work.

E7.2 Further to C6.26 (g), at least 72 hours prior to the commencement of the On-Site Work the Contractor shall contact the City of Winnipeg, Geomatics Services Branch at 204-918-1360 (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.

E7.3 Where a survey post, bar or control monument lies in the line of the proposed Work and must be disturbed, the Contractor shall provide the Contract Administrator with 48 hours' notice to permit referencing for future replacement, at no cost to the Contractor. Failure to provide the specified notice shall result in the Contractor paying for all costs associated with replacing or relocating the disturbed outline survey monuments and geodetic control monuments. 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.

E7.4 An approximate estimate of the cost to restore a legal survey monument is \$1,000 per bar and \$3,000 per control monument. Contractors shall ensure their landscaping and other subcontractors are aware of this clearance procedure and the potential restoration costs. Where possible, amounts owed to the City in accordance with the above will be deducted from payments to be made by the City to the Contractor.

E8. SITE ENCLOSURES

E8.1 Temporary Site enclosures, as determined necessary at the pre-construction meeting, shall be erected and maintained as required for the duration of the construction period.

E8.2 Site enclosures shall be considered incidental to the Contract Work.

SITE DEVELOPMENT

E9. REMOVALS

E9.1 General Description

E9.1.1 This Specification shall amend and supplement CW 3550. This Specification shall cover the removal and legal disposal of the existing bollards and chain.

E9.1.2 The Work to be done by the Contractor under this specification shall include the furnishing of all superintendence, overhead, labour, materials, equipment, tools, supplies and all other things necessary for and incidental to satisfactory performance and completion of all Work as shown on the drawings as specified herein.

E9.2 Construction methods

E9.2.1 Removal of Bollards and Chain

- (a) The Contractor shall carefully remove entire bollard, above and below grade, and chains designated for removal including all hardware and fasteners and legally dispose material off Site.
- (b) Holes left by bollard removal (where new posts are not situated in same location as previous posts) to be filled with clean earthen material with 150 mm top coat of soil as per **E18**.

E9.2.2 Cleaning as per **D23**.

E9.3 Method of Measurement

E9.3.1 Method of Measurement shall be as follows:

- (a) Removals shall be measured on a per item basis for:
 - (i) "Remove existing post bollards and chain" on Form B: Prices.
- (b) No separate Measurement shall be made for filling old post bollard holes with fill clean earthen material and 150 mm soil topcoat as this Work is incidental herein.
- (c) No separate Measurement shall be made for removing chain as this item is incidental to the Work herein.

E9.4 Basis of Payment

E9.4.1 Basis of Payment shall be as follows:

- (a) Removals will be paid for at the Contract Unit Prices on Form B: Prices. The amount to be paid for shall be the total number of units, measured as specified herein, which price shall be for full payment for supplying all labour, equipment and materials, and performing all operations herein described and all other items incidental to the Work and as accepted by the Contract Administrator.
- (b) No separate Payment shall be made for filling old post bollard holes with fill clean earthen material and 150 mm soil topcoat as this Work is incidental herein.
- (c) No separate Payment shall be made for removing chain as this item is incidental to the Work herein.

E10. EXCAVATION AND GRADING

E10.1 General Description

E10.1.1 This Specification shall amend and supplement CW 3110 and CW 3170. It shall cover the excavation and legal disposal of the new granular pavement, new planting beds, and new soil and sod.

E10.1.2 The Work to be done by the Contractor under this specification shall include the furnishing of all superintendence, overhead, labour, materials, equipment, tools, supplies and all other things necessary for and incidental to satisfactory performance and completion of all Work as shown on the drawings as specified herein.

E10.1.3 Work shall include but not be limited to the following:

- (a) Excavate, add clean fill if necessary, and grade to the limits shown on Drawings to the depths necessary to achieve finish grade for:
 - (i) Granular Pavement
 - ◆ Excavate to min. 200 mm below finished grade as per Drawings and **E11**.
 - (ii) Planting Beds
 - ◆ Excavate to min. 400 mm below finished grade: 300 mm for planting soil and 100 mm for bark mulch as per Drawings and per **E12**.
 - (iii) Soil and Sod

- ◆ Excavate to min. 100 mm below finished grade as per Drawings and **E18**, including in old play equipment area (play equipment removed by others), adjacent to granular pavement, and adjacent to planting beds. Ensure positive drainage through the site as shown on drawings. Depth varies.

E10.2 Construction Methods

E10.2.1 Excavation includes the removal of items as indicated on the Drawings and as directed by the Contract Administrator. Work includes the satisfactory disposal of unsuitable Site material such as clays susceptible to frost-heaving, silts, rock, rubble, rubbish and any surplus suitable Site material.

- (a) Stockpile suitable, approved material on Site for reuse (clean topsoil, clean earth fill,) in a secure location. Remove and dispose of unsuitable material.
- (b) Disposal of material shall be understood to mean the hauling of all unsuitable material from the Site and the unloading in a legal manner acceptable to the Contract Administrator. If arrangements are made in advance excavated material may be disposed of on Site at a location designated by the Contract Administrator.
- (c) Contractor must coordinate with the Contract Administrator to ensure all removals have occurred.
- (d) Excavate to the limits shown and as necessary to achieve finish grades as indicated on the Drawings. Where design grades are not shown, the new surface materials shall be installed to meet flush with surrounding grades, and sloped so as not to impede the existing drainage pattern.
- (e) Where new sod will meet existing, employ a vertical shearing operation, such as using a sharp spade or edger, along the outside edges of the excavation to create a clean and definite line for the new sod to abut flush to.
- (f) Excavation should be coordinated with the installation of play equipment and safety surfacing so as not to leave an open excavation area subject to ponding water.

E10.2.2 Site grading shall be as per Drawings.

- (a) The Contractor must ensure that the rough grading does not create tripping hazards and no areas of standing water remain. The subgrade of all excavated play areas must drain towards the subsurface drainage piping.
- (b) If necessary the Contractor shall import clean fill to achieve grades as per Drawings.
- (c) Backfill shall be placed in a dry, thawed condition and shall be maintained free of moisture or frost.
- (d) In fill areas where the difference between the existing ground elevation and the new finished design elevation is less than 300 mm, the Contractor shall scarify the existing ground to a minimum depth of 50 mm prior to placement of any fill.
- (e) All surplus fill material shall be removed and legally disposed off-site.
- (f) Do not disturb adjacent items designated to remain in place.

E10.2.3 Cleaning as per **D23**.

E10.3 Method of Measurement and Basis of Payment

E10.3.1 Method of Measurement shall be as follows:

- (a) No Measurement will be made for Excavation and Grading of Granular Pavement as these items are incidental to **E11**.
- (b) No Measurement will be made for Excavation and Grading of the new Planting Bed as these items are incidental to **E12**.
- (c) No Measurement will be made for Excavation and Grading for Soil and Sod as these items are incidental to **E18**.

- (d) No Measurement will be made for the import of clean fill to achieve rough grading grades as this item is incidental to the Work herein.

E10.3.2 Basis of Payment shall be as follows:

- (a) Excavation and Grading will be paid for at the Contract Unit Prices on Form B: Prices. The amount to be paid for shall be the total number of units, measured as specified herein, which price shall be for full payment for supplying all labour, equipment and materials, and performing all operations herein described and all other items incidental to the Work and as accepted by the Contract Administrator.
- (b) No Payment will be made for Excavation and Grading of Granular Pavement as these items are incidental to **E11**.
- (c) No Payment will be made for Excavation and Grading of the new Planting Bed as these items are incidental to **E12**.
- (d) No Payment will be made for Excavation and Grading for Soil and Sod as these items are incidental to **E18**.
- (e) No Payment will be made for the import of clean fill to achieve rough grading grades as this item is incidental to the Work herein.

E11. GRANULAR PAVEMENT

E11.1 Description

E11.1.1 This specification shall amend and supplement CW 3110 and include all phases of supply and installation of crushed limestone surfacing materials necessary to install granular pavement.

E11.1.2 The Work to be done by the Contractor under this specification shall include the furnishing of all superintendence, overhead, labour, materials, equipment, tools, supplies and all other things necessary for and incidental to satisfactory performance and completion of all Work as shown on the drawings as specified herein.

E11.2 Materials

E11.2.1 The materials of granular pavement shall be per SCD-646.

E11.3 Construction Method

E11.3.1 The Work included in the establishment of Granular Pavement shall include:

- (a) The Contractor shall survey and stake out the proposed Granular Pavement prior to the start of construction as shown on the construction drawings. Layout shall be checked and confirmed with Contract Administrator prior to construction.
- (b) Excavation of Granular Pavement shall be as per **E10**. Subgrade to be compacted.
- (c) All granular base courses shall be placed and compacted to the finished thickness as specified on the Drawings.
- (d) Base Coarse and Capping Coarse shall be compacted to a minimum of ninety five percent (95%) of Standard Proctor Density.
- (e) Sub-grade to be compacted.

E11.3.2 Cleaning as per **D23**.

E11.4 Method of Measurement and Basis of Payment

E11.4.1 Method of Measurement shall be as follows:

- (a) Granular Pavement shall be measured on a square metre basis for: "Supply and install granular pavement" on Form B: Prices.
- (b) No separate Measurement will be made for additional granular material as this item is incidental to the Work herein.

E11.4.2 Basis of Payment shall be as follows:

- (a) Granular pavement shall be paid for at the Contract Unit Prices. The amount to be paid for shall be the total number of units, as indicated on Form B: Prices. This price shall be full payment for excavation, subgrade compaction, supply and installation of base course and top course, supplying all labour, equipment and materials, and performing all operations herein described and all other items incidental to the Work and as accepted by the Contract Administrator.
- (b) No separate Payment will be made for additional granular material as this item is incidental to the Work herein.

E12. PLANTING BEDS

E12.1 Description

E12.1.1 This specification shall cover planting bed installation and planting topsoil mix.

E12.1.2 The Work to be done by the Contractor under this specification shall include the furnishing of all superintendence, overhead, labour, materials, equipment, tools, supplies and all other things necessary for and incidental to satisfactory performance and completion of all Work as shown on the Drawings as specified herein.

E12.2 Materials

E12.2.1 Topsoil Mix

- (a) Planting soil shall consist of black top soil, a fertile friable natural loam containing by volume not less than 4% and no more than 25% of organic matter for clay loams, and not less than 2% and no more than 25% for sandy loams, with an acidity value ranging from pH 6.0 to 8.0 and capable of sustaining vigorous plant growth. Topsoil is to be free of any mixture of subsoil, clay lumps and free of stones and other extraneous matter including couch or crab grass rhizomes.

E12.2.2 Bark mulch

- (a) Bark mulch is to be a clean bark or woodchip mulch with pieces not less than 15 mm nor larger than 100 mm in size and not more than 20 mm thick. Mulch is to be free of leaves, branches and other extraneous matter.

E12.3 Construction Methods

E12.3.1 Excavation and Preparation of Planting Beds

- (a) Planting Beds to be excavated as per Drawings and **E10**.
- (b) Upon excavation of the planting bed, the excavation shall be backfilled with a topsoil mixture to a depth to permit adequate installation and stabilization of the plant material.
- (c) Topsoil shall be placed in accordance with CW 3540 to a minimum compacted depth of 300 mm in areas indicated on the Drawings and as per SCD-501.

E12.3.2 Bark mulch placement

- (a) Mulch to be installed as per the Drawings and as per current version of SCD-501 after planting installation is complete.

E12.4 Cleaning as per **D23**.

E12.5 Method of Measurement and Basis of Payment

E12.5.1 Method of Measurement shall be as follows:

- (a) The supply and installation of the Planting Beds shall be measured on a square meter basis for "Supply and install planting beds c/w 100 mm bark mulch" on Form B: Prices.

E12.5.2 Basis of Payment shall be as follows:

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

E13. TIMBER ARBOUR AND PARK SIGNS

E13.1 Description

E13.1.1 This specification shall cover the supply and installation of the Timber Arbour.

E13.1.2 The Work to be done by the Contractor under this specification shall include the furnishing of all superintendence, overhead, labour, materials, equipment, tools, supplies and all other things necessary for and incidental to satisfactory performance and completion of all Work as shown on the Drawings as specified herein.

E13.2 Materials

E13.2.1 Pressure Treated Timbers, Dimension Lumber and Posts: to CSA 080, ACQ-C treatment, Brown colour, No. 2 or better Pine, S4S. Minimum moisture content at treatment in accordance with CSA 080. Minimum retention for above ground use 4.0 kg/m³ and for ground contact 6.4 kg/m³. Replace defective or damaged material with new. All wood to be free of defects, any warped, checked or bent materials will be rejected.

- (a) NLGA Standard Grading Rules for Canadian Lumber.

E13.2.2 Hardware: to CAN/CSA-G164, for exterior work and acceptable for ACQ treated lumber. All hardware to be hot dipped galvanized, size and type to suit application.

E13.2.3 Wood Preservative: Clear type to CSA 080.

E13.2.4 Screw Piles

- (a) Postech Thermal Screw Pile:

- (i) Product # P312L10-16
- (ii) 89 mm (3.5") diameter x 3200 mm (10'-06") long w/ 406 (16") diameter helical.
- (iii) Hot-dip galvanized and insulated.
- (iv) Adapter to suit 203 mm (8") post and stabilizer bracket.

- (b) Screw Piles to be supplied and installed by:

- (i) VersaPile Premium Foundations Inc.
- (ii) Contact: Dale Plett or Stan Higgens
- (iii) Phone: 204-793-0653
- (iv) Email: dale@screwpiling.ca or stan@versapile.com
- (v) Website: www.screwpiling.ca

- (c) Approved substitutions must be in accordance with **B7**.

E13.2.5 Signage

- (a) Sign Letters for Park Name Sign and Park Address Sign as per Drawings.
- (b) 311 City Services Plaque as supplied by Contract Administrator.
 - (i) 203 mm length x 127 mm height 0.80 gauge galvanized aluminum sign panel c/w vinyl decal and predrilled mounting holes.

E13.3 Construction Methods

E13.3.1 Storage and Handling Requirements:

- (a) Store materials off ground and in accordance with manufacturer's recommendations in clean, dry, well-ventilated area.
- (b) Handle and use treated material in a manner that will avoid damage or field fabrication causing alteration in original treatment.
- (c) Treat in field, cuts and damages to surface of treated material with an appropriate, clear preservative as described in CSA 080.1974. Ensure that damaged areas such as abrasions nail and spike holes, are thoroughly saturated with field treatment solutions as per CSA 080.

E13.3.2 All work is to be located and installed in accordance with the Drawing.

E13.3.3 Contractor shall confirm proposed location of arbour with Contract Administrator prior to fabrication.

E13.3.4 Contractor to verify underground utility locations prior to construction and report any discrepancies to the Contract Administrator immediately.

E13.3.5 Contractor to coordinate screw pile installation schedule with VersaPile Premium Foundations, Inc. After installation obtain certificate attesting to the conformity of installation and allowable loads for piles by certified installer as per CCMC 13102-R.

E13.3.6 All wood cuts shall be sanded to remove any burrs.

E13.3.7 Do all fastening neatly, evenly, and thoroughly. All screws shall be slightly countersunk so as not to protrude above the face of the wood surface.

E13.3.8 Install all members true to line, levels, and elevations. Set plumb and square to required height, length, and depth with joints fitted and properly secured. Space timbers uniformly to required height and length.

E13.3.9 Use timbers of the longest possible length to minimize joints.

E13.3.10 Signage

(a) Park Name Sign and Park Address Sign Lettering

- (i) Lettering font, size, style, and orientation on pressure treated lumber as per Drawings.
- (ii) Router letters to 6 mm depth, concave to not trap water. Lettering width to be min. 25 mm.
- (iii) Neatly prime and paint lettering with paint suitable for outdoor applications, paint colour: black.
- (iv) Install sign board with tamperproof hardware so lettering faces street side as per Drawings.

(b) 311 City Services Plaque

- (i) Coordinate pick up of 311 City Services Plaque with Contract Administrator.
- (ii) Install 311 City Services sign as per the Drawings with tamperproof hardware as per Drawings.

E13.3.11 Cleaning as per **D23**.

- (a) Upon completion, remove all sawdust, scrap pieces of wood, metal or plastic lumber straps, and all other debris and legally dispose of off-site.

E13.4 Method of Measurement and Basis of Payment

E13.4.1 Method of Measurement shall be as follows:

- (a) The supply and installation of the timber arbour shall be measured on a lump sum basis for "Supply and install arbour c/w park signs" on Form B: Prices.
- (b) No separate Measurement will be made for park signage fabrication as these items are incidental to the Work herein.

- (c) No separate Measurement will be made for the pick-up and installation of 311 City Services plaque as this item is incidental to the Work herein.

E13.5 Basis of Payment shall be as follows:

- (a) Timber arbour will be paid for at the Contract Unit Prices. The amount to be paid for shall be the total number of units, as indicated on Form B: Prices. The price shall be full payment for supplying all labour, equipment and materials, and performing all operations herein described and all other items incidental to the Work and as accepted by the Contract Administrator.
- (b) No separate Payment will be made for park signage fabrication as this item is incidental to the Work herein.
- (c) No separate Payment will be made for the pick-up and installation of 311 City Services plaque as this item is incidental to the Work herein.

E14. DEDICATION BOULDER

E14.1 Description

E14.1.1 This Specification shall cover the supply and installation of a granite boulder, as shown on the Drawings.

E14.1.2 The Work to be done by the Contractor under this specification shall include the furnishing of all superintendence, overhead, labour, materials, equipment, tools, supplies and all other things necessary for and incidental to satisfactory performance and completion of all Work as shown on the drawings as specified herein.

E14.2 Materials

E14.2.1 Granite boulder to be 1000 length x 750 width x 750 mm height, with min. 500 x 700mm flat face for future installation of a dedication plaque by others.

- (a) Boulder to be approved at source prior to shipment to site.
- (b) Store boulder in a protected location immediately upon arrival on site.

E14.2.2 Geotextile fabric shall be per CW 3130.

E14.2.3 Granular:

- (a) Base coarse shall be 150 mm (6") crushed limestone, 20 mm (3/4") down;
- (b) Sub-base course shall be 75 mm (3") crushed limestone, 50 mm (2") down;
- (c) Sub-grade to be compacted.

E14.2.4 Granite boulder to be clean and free of dirt, etc.

E14.3 Construction Methods

E14.3.1 Excavate area to set boulder at correct elevation in pavement area.

E14.3.2 Excavate and backfill with compacted granular base around boulders. Tamp down in 50 mm lifts and compact to 95% SPD.

E14.3.3 Supply and install boulder as per Drawings. Orient flat face of boulder to the street. Lift and move boulder with straps or chains without causing damage to the boulder or granular pavement and to allow for adjustment of position in field. Do not drag boulder across site.

E14.3.4 Cleaning as per **D23**.

E14.4 Method of Measurement and Basis of Payment

E14.4.1 Method of Measurement shall be as follows:

- (a) The supply and installation of the Dedication Boulder shall be measured on a per unit basis for "Supply & install dedication boulder" on Form B: Prices.

- (b) No separate Measurement shall be made for the supply and installation of base course material or geotextile as these items are incidental to the Work herein.

E14.4.2 Basis of Payment shall be as follows:

- (a) Dedication Boulder will be paid for at the Contract Unit Prices. The amount to be paid for shall be the total number of units, as indicated on Form B: Prices. This price shall be full payment for supplying all labour, equipment and materials, and performing all operations herein described and all other items incidental to the Work and as accepted by the Contract Administrator.
- (b) No separate Payment shall be made for the supply and installation of base course material or geotextile as these items are incidental to the Work herein.

E15. SITE FURNISHINGS

E15.1 Description

E15.1.1 This specification shall cover the ordering, **pick-up**, and installation of one (1) waste receptacle and two (2) benches.

E15.1.2 The Work to be done by the Contractor under this specification shall include the furnishing of all superintendence, overhead, labour, materials, equipment, tools, supplies and all other things necessary for and incidental to satisfactory performance and completion of all Work as shown on the drawings as specified herein.

E15.2 Materials

E15.2.1 All materials supplied under this specification shall be of a type approved by the Contract Administrator, and subject to inspection and testing by the Contract Administrator.

- (a) **Backed Bench** – Tache Style Composite Bench with Back and Arm Rests – galvanized, as per SCD-121A, Product # 52501085GLV, or substitute in accordance with **B7**.
- (b) **Waste Receptacle** – Metal Slat Type - galvanized, as per SCD-119, Product # 52501063GLV (metal slat WR) and Product # 52501058GLV (Wire Basket) or substitute in accordance with **B7**.

E15.2.2 For ordering Site furniture please email:

- (a) pwd-cps-orderdesk@winnipeg.ca

E15.3 Construction Methods

E15.3.1 All Work is to be located and installed in accordance with the drawings, and associated SCDs using approved non-rusting, vandal resistant fasteners to ensure solid, durable, finished work suitable for the purpose intended. Fasteners and assembly hardware shall be incidental to the Work;

E15.3.2 All furnishings and fixtures to be installed plumb and true to correct elevations and location, as directed by the Contract Administrator. The Contractor shall confirm proposed locations of all site furnishings with Contract Administrator prior to installation;

E15.3.3 All furnishings and fixtures to be carefully handled so that no parts will be bent, broken or otherwise damaged. Hammering is prohibited.

E15.3.4 Concrete foundations shall be as per Drawings and **E19**.

E15.3.5 Cleaning as per **D23**.

E15.4 Method of Measurement and Basis of Payment

E15.4.1 Method of Measurement shall be as follows:

- (a) Site Furniture will be measured on a per item basis for the following items for:
 - (i) “Pick up and Install benches” on Form B: Prices.

- (ii) "Pick up and install waste receptacle c/w insert"; and
- (b) No separate Measurement shall be made for concrete foundations as these items are incidental to the Work herein.

E15.4.2 Basis of Payment shall be as follows:

- (a) Site Furniture will be paid for at the Contract Unit Prices. The amount to be paid for shall be the total number of units, as indicated on Form B: Prices. This price shall be full payment for supplying all labour, equipment and materials, and performing all operations herein described and all other items incidental to the Work and as accepted by the Contract Administrator.
- (b) No separate Payment shall be made for concrete foundations as these items are incidental to the Work herein.

E16. PERENNIAL PLANTING

E16.1 Description

E16.1.1 This specification shall cover the supply and install of nursery grown perennial plantings.

E16.1.2 The Work to be done by the Contractor under this specification shall include the furnishing of all superintendence, overhead, labour, materials, equipment, tools, supplies and all other things necessary for and incidental to satisfactory performance and completion of all Work as shown on the drawings as specified herein.

E16.2 Materials

E16.2.1 General

- (a) All nursery stock supplied shall be Canadian prairie nursery grown, of the species and sizes indicated on the drawings. Quality shall be in accordance with the latest "Guide Specification for Nursery Stock of the Canadian Nursery Trades Association".
- (b) Any nursery stock dug from native stands, wood lots, orchards or neglected nurseries and which have not received proper cultural maintenance as advocated by the Canadian Nursery Trades Association shall be designated as "collected plants". The use of "collected plants" will not be permitted unless approved by the Contract Administrator.
- (c) The Contract Administrator reserves the right to inspect the plant material at the original source, and to instruct the supplier on root and branch pruning requirements.
- (d) Nomenclature of specified nursery stock shall conform to the International Code of Nomenclature for Cultivated Plants and shall be in accordance with the approved scientific names given in the latest edition of standardized Plant Names. The names of varieties not names therein are generally in conformity with the names accepted in the nursery trades.
- (e) Plants larger than specified may be used if approved by the Contract Administrator. The use of such plants shall not increase the Contract price.
- (f) All nursery stock shall be measured when the plants are in their normal position. Height and spread dimensions specified refer to the main body of the plant.
- (g) All nursery stock shall be well branched, true to type, structurally sound, possess a well-developed, undamaged root system and shall be free of disease, insect infestations, rodent damage, sunscald, frost cracks and other abrasion or scare to the bark. All parts of the nursery stock shall be moist and show live, green cambium when cut.
- (h) At least one plant of each variety supplied shall bear a tag showing both the botanical and common name of the plant.

E16.2.2 Protection of Stock

- (a) All nursery stock shall be well protected from damage and drying out until the time of planting on site. All roots shall be cleanly cut; split roots are not acceptable.
- (b) Nursery stock shall be transplanted with care to prevent damage. Plants shall be carefully tied in such a manner so as not to break or damage plants. Points of contact with equipment shall be padded. All nursery stock, which cannot be planted immediately upon arrival at the site, shall be well protected to prevent drying out and shall be kept moist until commencement of planting.

E16.2.3 Wound Dressing

- (a) Horticulturally accepted non-toxic, non-hardening emulsion. Wound Dressing must be approved by Contract Administrator.

E16.3 Construction Methods

E16.3.1 General

- (a) Perennial planting shall be as per SCD-501.
- (b) For container stock or root balls in non-degradable wrapping, remove entire container or wrapping without damaging root ball.
- (c) Planting pits shall be excavated in a square shape with vertical sides to a depth and minimum width amounting to twice the diameter of the root system, as per current SCD-501. Hand dig pits where required to protect underground utilities.
- (d) Upon excavation of the pits, and protection of any underground utility lines, the holes shall be backfilled with a topsoil mixture to a depth to permit adequate installation and stabilization of the plant material as per **E12**.
- (e) After inserting the plant and filling the planting hole with topsoil, clean water shall be poured in until the pit is thoroughly soaked. Filling of the hole shall then be completed and the fill-in soil shall be packed firmly around the roots, leaving a concave surface for convenient watering 75 mm below rounding and grade elevation. After filling, the planting shall be watered at frequent intervals.
- (f) Planting shall be done during periods suitable to weather conditions and locally accepted practice. All nursery stock shall be set plumb in the centre of pits and at levels as shown on the planting details after settlement has taken place.
- (g) Nursery stock shall be faced to give the best appearance or relationship to adjacent structures and to the approval of the Contract Administrator.
- (h) Dispose of wrapping and container material off site.

E16.3.2 Bark mulch

- (a) Bark mulch is to be placed within the proposed planting beds as per **E12**.

E16.4 Guarantee of Perennial Nursery Stock

E16.4.1 The Contractor shall agree and guarantee to replace and replant any nursery stock found dead and/or in poor condition within two years from the date of the Certificate of Total Performance, at his cost. "Poor condition" shall be interpreted as meaning nursery stock on which branches are dying, or have not shown satisfactory growth of leaves. All replacements plants shall be installed within from the date of notification from the City, unless the City extends the time period, as a result of seasonal or climatic considerations.

- (a) Exempted is nursery stock damaged by accidental causes or vandalism, which stock shall be replaced at the cost of the City.
- (b) All required replacements shall be by plants of at least the same size and species as specified, and supplied and planted in accordance with the original drawings and Specifications, and the replaced material shall carry an additional one-year guarantee period. All plants must be in a healthy condition for one full year before the warranty on the year will be considered fulfilled.

E16.5 Cleaning as per **D23**.

E16.6 Method of Measurement and Basis of Payment

E16.6.1 Method of Measurement shall be as follows:

- (a) The supply and installation of perennials will be measured on a per unit basis for:
 - (i) "Supply and install Goldstrum Coneflower";
 - (ii) "Supply and install Allegiance Daylily";
 - (iii) "Supply and install Autumn Joy Sedum"; and
 - (iv) "Supply and install Kay Gray Grape Vine" on Form B: Prices.

E16.6.2 Basis of Payment shall be as follows:

- (a) The supply and installation of Plant Material will be paid for at the Contract unit price for each tree and ornamental grass, measured as specified herein, which price shall be payment in full including all costs for the plants, two year maintenance, and all other items incidental to the Work included in this Specification.

E16.6.3 Plant Specification List

- (a) As per Drawings.

E17. POST BOLLARDS AND VEHICLE ACCESS GATE

E17.1 Description

E17.1.1 This specification shall cover the supply and installation of the Post Bollards and Vehicle Access Gate as shown on the Drawings and SCD-105B, SCD-105G, and specified herein.

E17.1.2 The Work to be done by the Contractor under this specification shall include the furnishing of all superintendence, overhead, labour, materials, equipment, tools, supplies and all other things necessary for and incidental to satisfactory performance and completion of all Work as shown on the drawings as specified herein.

E17.2 Materials

E17.2.1 Wood bollard posts shall be Western Red Cedar, free of bark, solid core, air dried, pentachlophenol dipped after shaping and drilling- or Manitoba Pine, free of bark, solid core, rough not turned and boliden treated under pressure. All wood to be free of defects, any warped, checked or bent materials will be rejected.

E17.2.2 Hardware: to CAD/CSA-G164, for exterior work and acceptable for ACQ treated lumber. All hardware to be hot dipped galvanized, size and type to suit application and as per Drawings.

E17.2.3 High visibility plastic tubing.

E17.2.4 Preservative: Clear type to CSA 080 for above ground applications and preservative suitable for below grade applications on all posts that are buried below grade.

E17.2.5 19 mm down limestone as per CW 3110.

E17.2.6 Soil and sod repair as per **E18**.

E17.3 Construction Methods

E17.3.1 Handling and use of treated timber

- (a) Handle and use treated material in a manner that will avoid damage or field fabrication causing alteration in original treatment.
- (b) Store materials off ground and in accordance with manufacturer's recommendations in clean, dry, well-ventilated area.
- (c) Replace defective or damaged materials with new.
- (d) Treat in field, cuts and damages to surface of treated material with an appropriate, clear preservative as described in CSA 080. Ensure that damaged areas such as

abrasions nail and spike holes, are thoroughly saturated with field treatment solutions as per CSA 080.

- E17.3.2 All work is to be located and installed in accordance with the Drawings.
- E17.3.3 Contractor shall confirm proposed location of bollards with Contract Administrator prior to fabrication.
- E17.3.4 Contractor to verify underground utility locations prior construction and report any discrepancies to the Contract Administrator immediately.
- E17.3.5 All wood cuts shall be sanded to remove any burrs.
- E17.3.6 Do all fastening neatly, evenly, and thoroughly.
- E17.3.7 Install all posts true to line, levels, and elevations.
- E17.3.8 Build work square, true and accurate to required height. Space uniformly as per Drawings.
- E17.3.9 Tops of bollards shall follow final site grades.
- E17.3.10 Backfill bollard excavations with 19 mm down limestone. Tamp material thoroughly.
- E17.3.11 Soil and sod repair as per **E18**.
- E17.3.12 Cleaning as per **D23**.
- E17.4 Method of Measurement and Basis of Payment
 - E17.4.1 Method of Measurement shall be as follows:
 - (a) The supply and installation of Post Bollards and Vehicle Access Gate shall be measured on a per item basis for "Supply and install post bollards c/w vehicle access gate" on Form B: Prices.
 - (b) No separate Measurement will be made for the supply and installation of chain or plastic tubing as these items are incidental to the Work herein.
 - (c) No separate Measurement will be made for soil and sod repair around posts as this item is incidental to the Work herein.
 - E17.4.2 Basis of Payment shall be as follows:
 - (a) Post Bollards and Vehicle Access Gate will be paid for at the Contract Unit Prices. The amount to be paid for shall be the total number of units, as indicated on Form B: Prices. The price shall be full payment for supplying all labour, equipment and materials, and performing all operations herein described and all other items incidental to the Work and as accepted by the Contract Administrator.
 - (b) No separate Payment will be made for the supply and installation of chain or plastic tubing as these items are incidental to the Work herein.
 - (c) No separate Payment will be made for soil and sod repair around posts as this item is incidental to the Work herein.

E18. SOIL AND SOD

- E18.1 Description
 - E18.1.1 This Specification shall amend and supplement CW 3510, CW 3520, CW 3540, and SD-243. The Contractor shall install mineral sod and a **minimum** 75 mm compacted thickness of topsoil, as required bringing up level of finished grade as necessary.
 - E18.1.2 The Work to be done by the Contractor under this specification shall include the furnishing of all superintendence, overhead, labour, materials, equipment, tools, supplies and all other things necessary for and incidental to satisfactory performance and completion of all Work as shown on the drawings as specified herein.
- E18.2 Materials

- E18.2.1 All materials supplied under this specification shall be as per CW 3510, CW 3520, CW 3540, and SD-243.
- E18.3 Construction Methods
- E18.3.1 The Contractor shall install topsoil and sod over all graded areas including; around areas excavated to remove existing playground equipment, around new planting beds and new granular pavement as per Drawings and SCD-243.
- E18.3.2 Areas to be Sodded are to be laid out on Site and approved by the Contract Administrator before commencing Work. Work outside the limit approved by the Contract Administrator will not be measured and will not be paid for under this section but considered incidental to the Work.
- E18.3.3 Where new soil and sod will meet existing, employ a vertical shearing operation, such as using a sharp spade or edger, along the outside edges of the excavation to create a clean and definite line for the new sod to abut flush to.
- E18.3.4 Restoration shall be achieved using topsoil and sod unless otherwise directed by the Contract Administrator.
- E18.3.5 Cleaning as per **D23**.
- E18.4 Maintenance Period
- (a) Thirty (30) day maintenance period on sod will commence at Total Performance and acceptance.
- E18.5 Method of Measurement and Basis of Payment
- E18.5.1 Method of Measurement shall be as follows:
- (a) Soil and Sod will be measured on a square metre basis for:
- (i) "Supply and install of soil and sod" on Form B: Prices.
- E18.5.2 Basis of Payment shall be as follows:
- (a) Soil and sod will be paid for at the Contract Unit Prices. The amount to be paid for shall be the total number of units, as indicated on Form B: Prices. This price shall be full payment for supplying all labour, equipment and materials, and performing all operations herein described and all other items incidental to the Work and as accepted by the Contract Administrator.

E19. FOUNDATIONS - SITE FURNISHINGS

- E19.1 General Description
- E19.1.1 All site furnishings are to be set in concrete footings or piles to ensure stability and prevent frost heaving as per SCD-121A and SCD-119. The current Standard Construction Specifications of the City of Winnipeg, CW 2160 –latest revision - Concrete to be used in Underground Works, is to be utilized in the installation of the concrete works for all below ground components.
- E19.1.2 The Work to be done by the Contractor under this specification shall include the furnishing of all superintendence, overhead, labour, materials, equipment, tools, supplies and all other things necessary for and incidental to satisfactory performance and completion of all Work as shown on the drawings as specified herein.
- E19.2 Materials
- E19.2.1 The specific concrete requirements shall be:
- (a) Sulphate resistant, Type 50 Cement;
- (b) 28 day compressive strength of 30 Mpa;
- (c) maximum aggregate size of 20 mm, nominal;

- (d) slump 80 +/- 20 mm;
- (e) maximum water/cement ratio 0.49.

E19.3 Installation

E19.3.1 All posts and supports shall be centred in the concrete footing such that there is a complete collar of concrete around each post and support. Where posts are not perfectly centred there should be a minimum of 51 mm (2") concrete at any point around the post.

E19.3.2 Cleaning as per **D23**.

E19.4 Method of Measurement and Basis of Payment

E19.4.1 Method of Measurement shall be as follows:

- (a) Foundations shall be incidental to the Measurement of Site Furnishings in **E15** and as shown on Form B: Prices.

E19.4.2 Basis of Payment shall be as follows:

- (a) No separate payment shall be made for Site Furnishings foundations.