



THE CITY OF WINNIPEG

BID OPPORTUNITY

BID OPPORTUNITY NO. 413-2008

KEENLEYSIDE & DONWOOD PARKS SITE WORK

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PART B - BIDDING PROCEDURES

B1. CONTRACT TITLE

B1.1 KEENLEYSIDE & DONWOOD PARKS SITE WORK

B2. SUBMISSION DEADLINE

B2.1 The Submission Deadline is 12:00 noon Winnipeg time, June 13, 2008.

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

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

B3. SITE INVESTIGATION

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

B4. ENQUIRIES

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

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

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

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

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

B5. ADDENDA

B5.1 The Contract Administrator may, at any time prior to the Submission Deadline, issue addenda correcting errors, discrepancies or omissions in the Bid Opportunity, or clarifying the meaning or intent of any provision therein.

B5.2 The Contract Administrator will issue each addendum at least two (2) Business Days prior to the Submission Deadline, or provide at least two (2) Business Days by extending the Submission Deadline.

B5.2.1 Addenda will be available on the Bid Opportunities page at The City of Winnipeg, Corporate Finance, Materials Management Branch internet Site at <http://www.winnipeg.ca/matmgt>.

- B5.2.2 The Bidder is responsible for ensuring that he has received all addenda and is advised to check the Materials Management Branch internet Site for addenda regularly and shortly before the Submission Deadline, as may be amended by addendum.
- B5.2.3 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.

B6. SUBSTITUTES

- B6.1 The Work is based on the Plant, Materials and methods specified in the Bid Opportunity.
- B6.2 Substitutions shall not be allowed unless application has been made to and prior approval has been granted by the Contract Administrator in writing.
- B6.3 Requests for approval of a substitute will not be considered unless received in writing by the Contract Administrator at least five (5) Business Days prior to the Submission Deadline.
- B6.4 The Bidder shall ensure that any and all requests for approval of a substitute:
- (a) provide sufficient information and details to enable the Contract Administrator to determine the acceptability of the Plant, Material or method as either an approved equal or alternative;
 - (b) identify any and all changes required in the applicable Work, and all changes to any other Work, which would become necessary to accommodate the substitute;
 - (c) identify any anticipated cost or time savings that may be associated with the substitute;
 - (d) certify that, in the case of a request for approval as an approved equal, the substitute will fully perform the functions called for by the general design, be of equal or superior substance to that specified, is suited to the same use and capable of performing the same function as that specified and can be incorporated into the Work, strictly in accordance with the proposed Work schedule and the dates specified in the Supplemental Conditions for Substantial Performance and Total Performance;
 - (e) certify that, in the case of a request for approval as an approved alternative, the substitute will adequately perform the functions called for by the general design, be similar in substance to that specified, is suited to the same use and capable of performing the same function as that specified and can be incorporated into the Work, strictly in accordance with the proposed Work schedule and the dates specified in the Supplemental Conditions for Substantial Performance and Total Performance.
- B6.5 The Contract Administrator, after assessing the request for approval of a substitute, may in his sole discretion grant approval for the use of a substitute as an “approved equal” or as an “approved alternative”, or may refuse to grant approval of the substitute.
- B6.6 The Contract Administrator will provide a response in writing, at least two (2) Business Days prior to the Submission Deadline, only to the Bidder who requested approval of the substitute.
- B6.6.1 The Bidder requesting and obtaining the approval of a substitute shall be entirely responsible for disseminating information regarding the approval to any person or persons he wishes to inform.
- B6.7 If the Contract Administrator approves a substitute as an “approved equal”, any Bidder may use the approved equal in place of the specified item.
- B6.8 If the Contract Administrator approves a substitute as an “approved alternative”, any Bidder bidding that approved alternative may base his Total Bid Price upon the specified item but may also indicate an alternative price based upon the approved alternative. Such alternatives will be evaluated in accordance with B14.

B6.9 No later claim by the Contractor for an addition to the Total Bid Price because of any other changes in the Work necessitated by the use of an approved equal or an approved alternative will be considered.

B7. BID COMPONENTS

B7.1 The Bid shall consist of the following components:

- (a) Form A: Bid;
- (b) Form B: Prices.

B7.2 Further to B7.1, the Bidder should include the written correspondence from the Contract Administrator approving a substitute in accordance with B6.

B7.3 All components of the Bid shall be fully completed or provided, and submitted by the Bidder no later than the Submission Deadline, with all required entries made clearly and completely, to constitute a responsive Bid.

B7.4 The Bid shall be submitted enclosed and sealed in an envelope clearly marked with the Bid Opportunity number and the Bidder's name and address.

B7.4.1 Samples or other components of the Bid which cannot reasonably be enclosed in the envelope may be packaged separately, but shall be clearly marked with the Bid Opportunity number, the Bidder's name and address, and an indication that the contents are part of the Bidder's Bid.

B7.5 Bidders are advised not to include any information/literature except as requested in accordance with B7.1.

B7.6 Bidders are advised that inclusion of terms and conditions inconsistent with the Bid Opportunity document, including the General Conditions, may result in the Bid being determined to be non-responsive.

B7.7 Bids submitted by facsimile transmission (fax) or internet electronic mail (e-mail) will not be accepted.

B7.8 Bids shall be submitted to:

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

B8. BID

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

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

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

- B8.2.1 If a Bid is submitted jointly by two or more persons, each and all such persons shall identify themselves in accordance with B8.2.
- B8.3 In Paragraph 3 of Form A: Bid, the Bidder shall identify a contact person who is authorized to represent the Bidder for purposes of the Bid.
- B8.4 Paragraph 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 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 own, it shall be signed by the registered owner of the business name, or by the registered owner's authorized officials if the owner is a partnership or a corporation.
- B8.4.1 The name and official capacity of all individuals signing Form A: Bid shall be printed below such signatures.
- B8.4.2 All signatures should be witnessed, except where a corporate seal has been affixed.
- B8.5 If a Bid is submitted jointly by two or more persons, the word "Bidder" shall mean each and all such persons, and the undertakings, covenants and obligations of such joint Bidders in the Bid and the Contract, when awarded, shall be both joint and several.

B9. PRICES

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

B10. QUALIFICATION

- B10.1 The Bidder shall:
- (a) undertake to be in good standing under The Corporations Act (Manitoba), or properly registered under The Business Names Registration Act (Manitoba), or otherwise properly registered, licensed or permitted by law to carry on business in Manitoba; 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.
- B10.2 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 Branch internet Site at <http://www.winnipeg.ca/matmgt>).

- B10.3 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);
- B10.4 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.
- B10.5 The Bidder shall provide, on the request of the Contract Administrator, full access to any of the Bidder's equipment and facilities to confirm, to the Contract Administrator's satisfaction, that the Bidder's equipment and facilities are adequate to perform the Work.

B11. OPENING OF BIDS AND RELEASE OF INFORMATION

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

B12. IRREVOCABLE BID

- B12.1 The Bid(s) submitted by the Bidder shall be irrevocable for the time period specified in Paragraph 9 of Form A: Bid.
- B12.2 The acceptance by the City of any Bid shall not release the Bids of the next two lowest evaluated responsive Bidders and these Bidders shall be bound by their Bids on such Work for the time period specified in Paragraph 9 of Form A: Bid.

B13. WITHDRAWAL OF BIDS

- B13.1 A Bidder may withdraw his Bid without penalty by giving written notice to the Manager of Materials at any time prior to the Submission Deadline.
- B13.1.1 Notwithstanding C23.3, the time and date of receipt of any notice withdrawing a Bid shall be the time and date of receipt as determined by the Manager of Materials.

- B13.1.2 The City will assume that any one of the contact persons named in Paragraph 3 of Form A: Bid or the Bidder's authorized representatives named in Paragraph 10 of Form A: Bid, and only such person, has authority to give notice of withdrawal.
- B13.1.3 If a Bidder gives notice of withdrawal prior to the Submission Deadline, the Manager of Materials will:
- (a) retain the Bid until after the Submission Deadline has elapsed;
 - (b) open the Bid to identify the contact person named in Paragraph 3 of Form A: Bid and the Bidder's authorized representatives named in Paragraph 10 of Form A: Bid; and
 - (c) if the notice has been given by any one of the persons specified in B13.1.3(b), declare the Bid withdrawn.
- B13.2 A Bidder who withdraws his Bid after the Submission Deadline but before his Bid has been released or has lapsed as provided for in B12.2 shall be liable for such damages as are imposed upon the Bidder by law and subject to such sanctions as the Chief Administrative Officer considers appropriate in the circumstances. The City, in such event, shall be entitled to all rights and remedies available to it at law.

B14. EVALUATION OF BIDS

- B14.1 Award of the Contract shall be based on the following bid evaluation criteria:
- (a) compliance by the Bidder with the requirements of the Bid Opportunity (pass/fail);
 - (b) qualifications of the Bidder and the SubContractors, if any, pursuant to B10 (pass/fail);
 - (c) Total Bid Price;
 - (d) economic analysis of any approved alternative pursuant to B6.
- B14.2 Further to B14.1(a), the Award Authority may reject a Bid as being non-responsive if the Bid is incomplete, obscure or conditional, or contains additions, deletions, alterations or other irregularities. The Award Authority may reject all or any part of any Bid, or waive technical requirements or minor informalities or irregularities, if the interests of the City so require.
- B14.3 Further to B14.1(b), the Award Authority shall reject any Bid submitted by a Bidder who does not demonstrate, in his Bid or in other information required to be submitted, that he is responsible and qualified.
- B14.4 Further to B14.1(c), the Total Bid Price shall be the sum of the quantities multiplied by the unit prices for each item shown on Form B: Prices.
- B14.4.1 If there is any discrepancy between the Total Bid Price written in figures, the Total Bid Price written in words and the sum of the quantities multiplied by the unit prices for each item, the sum of the quantities multiplied by the unit prices for each item shall take precedence.

B15. AWARD OF CONTRACT

- B15.1 The City will give notice of the award of the Contract or will give notice that no award will be made.
- B15.2 The City will have no obligation to award a Contract to a Bidder, even though one or all of the Bidders are determined to be responsible and qualified, and the Bids are determined to be responsive.
- B15.2.1 Without limiting the generality of B15.2, the City will have no obligation to award a Contract where:

- (a) the prices exceed the available City funds for the Work;
- (b) the prices are materially in excess of the prices received for similar Work in the past;
- (c) the prices are materially in excess of the City's cost to perform the Work, or a significant portion thereof, with its own forces;
- (d) only one Bid is received; or
- (e) in the judgment of the Award Authority, the interests of the City would best be served by not awarding a Contract.

B15.3 Subject to B15.2, where an award of Contract is made by the City, the award shall be made to the responsible and qualified Bidder submitting the lowest evaluated responsive Bid.

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

B15.4 Notwithstanding C4, the City will issue a Purchase Order to the successful Bidder in lieu of the execution of a Contract.

B15.5 The Contract, as defined in C1.1, in its entirety shall be deemed to be incorporated in and to form a part of the Purchase Order notwithstanding that it is not necessarily attached to or accompany said Purchase Order.

PART C - GENERAL CONDITIONS

C0. GENERAL CONDITIONS

- C0.1 The *General Conditions for Construction* (Revision 2006 12 15) are applicable to the Work of the Contract.
- C0.1.1 The *General Conditions for Construction* are available on the Information Connection page at The City of Winnipeg, Corporate Finance, Materials Management Branch internet Site at <http://www.winnipeg.ca/matmgt>.
- C0.2 A reference in the Bid Opportunity to a section, clause or subclause with the prefix “**C**” designates a section, clause or subclause in the *General Conditions for Construction*.

PART D - SUPPLEMENTAL CONDITIONS

GENERAL

D1. GENERAL CONDITIONS

D1.1 In addition to the *General Conditions for Construction*, these Supplemental Conditions are applicable to the Work of the Contract.

D2. SCOPE OF WORK

D2.1 The Work to be done under the Contract shall consist of the supply and installation of Site Works at Keenleyside and Donwood Parks.

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

- (a) Removal of existing play equipment,
- (b) Supply and installation of new crusher fines paved area,
- (c) Excavation of the play safety surfacing area,
- (d) Supply and installation of subsurface drainage,
- (e) Supply and installation of Timber play Curb,
- (f) Supply and Installation of Precast Concrete Retaining Wall,
- (g) Supply and installation of Site Furniture
- (h) Supply and installation of Sod.

D3. CONTRACT ADMINISTRATOR

D3.1 The Contract Administrator is Dean Spearman Landscape Architect , represented by:

Dean Spearman
83 Lafayette Bay, Winnipeg, Manitoba R3T 3J9
Telephone No. (204) 261-4137
Facsimile No. (204) 261-4137

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

D4. CONTRACTOR'S SUPERVISOR

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

D5. NOTICES

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

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

- D5.3 All notices of appeal to the Chief Administrative Officer shall be sent to the following address or facsimile number:

The City of Winnipeg
Chief Administrative Officer Secretariat
Attn: Chief Administrative Officer
Administration Building, 3rd Floor
510 Main Street
Winnipeg MB R3B 1B9
Facsimile No.: (204) 949-1174

- D5.4 All notices, requests, nominations, proposals, consents, approvals, statements, authorizations, documents or other communications required to be submitted or returned to the City Solicitor shall be sent to the following address or facsimile number:

The City of Winnipeg
Corporate Services Department
Legal Services Division
Attn: City Solicitor
185 King Street, 3rd Floor
Winnipeg MB R3B 1J1
Facsimile No.: (204) 947-9155

SUBMISSIONS

D6. AUTHORITY TO CARRY ON BUSINESS

- D6.1 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.

D7. SAFE WORK PLAN

- D7.1 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.
- D7.2 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 Branch internet site at <http://www.winnipeg.ca/matmgt>.

D8. INSURANCE

- D8.1 The Contractor shall provide and maintain the following insurance coverage:
- (a) commercial general liability insurance, in the amount of at least two million dollars (\$2,000,000.00) inclusive, with The City of Winnipeg and Dean Spearman Landscape Architect added as an additional insured, with a cross-liability clause, such liability policy to also contain contractual liability, unlicensed motor vehicle liability, non-owned automobile liability and products and completed operations, to remain in place at all times during the performance of the Work and throughout the warranty period;
 - (b) automobile liability insurance for owned automobiles used for or in connection with the Work in the amount of at least two million dollars (\$2,000,000.00) at all times during the performance of the Work and until the date of Total Performance;

- D8.2 Deductibles shall be borne by the Contractor.
- D8.3 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.
- D8.4 The Contractor shall not cancel, materially alter, or cause each policy to lapse without providing at least fifteen (15) Calendar Days prior written notice to the Contract Administrator.

D9. PERFORMANCE SECURITY

- D9.1 If the Contract Price exceeds one hundred thousand dollars (\$100,000.00), 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.
- D9.1.2 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.
- D9.2 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.

D10. SUBCONTRACTOR LIST

- D10.1 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.

D11. DETAILED WORK SCHEDULE

- D11.1 The Contractor shall provide the Contract Administrator with a detailed work schedule at least two (2) Business Days prior to the commencement of any Work on the Site but in no event later than the date specified in C4.1 for the return of the executed Contract.
- D11.2 The detailed work schedule shall consist of the following dates:
- (a) start date;
 - (b) Demolition
 - (c) Excavation of Playground site
 - (d) Installation of Drainage Medium;
 - (e) Installation of Timbers and walls;
 - (f) Crusher Fines Paving;
 - (g) Installation of Site Furniture

(h) Expected Completion.

D11.3 Other milestone dates appropriate to this project should also be included to make the Contract Administrator aware of them.

SCHEDULE OF WORK

D12. COMMENCEMENT

D12.1 The Contractor shall not commence any Work until he is in receipt of a Purchase Order from the Award Authority authorizing the commencement of the Work.

D12.2 The Contractor shall not commence any Work on the Site until:

- (a) the Contract Administrator has confirmed receipt and approval of:
 - (i) evidence of authority to carry on business specified in D6;
 - (ii) evidence of the Workers compensation coverage specified in C6.15
 - (iii) evidence of the Safe Work Plan specified in D7;
 - (iv) evidence of the insurance specified in D8;
 - (v) Performance Security as specified in D9;
 - (vi) the Subcontractor list specified in D10;
 - (vii) the detailed work schedule specified in D11.
- (b) the Contractor has attended a pre-construction meeting with the Contract Administrator, or the Contract Administrator has waived the requirement for a pre-construction meeting.

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

D13. SUBSTANTIAL PERFORMANCE

D13.1 The Contractor shall achieve Substantial Performance within twenty five (25) consecutive Working Days of the commencement of the Work as specified in D12.

D13.2 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.

D13.3 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.

D14. TOTAL PERFORMANCE

D14.1 The Contractor shall achieve Total Performance within Thirty (30) consecutive Working Days of the commencement of the Work as specified in D12.

D14.2 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.

D14.3 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.

D15. LIQUIDATED DAMAGES

D15.1 If the Contractor fails to achieve Total Performance in accordance with the Contract by the day fixed herein for Total 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 Total Performance during which such failure continues.

D15.2 The amount specified for liquidated damages in D15.1 is based on a genuine pre-estimate of the City's damages in the event that the Contractor does not achieve Total Performance by the day fixed herein for same.

D15.3 The City may reduce any payment to the Contractor by the amount of any liquidated damages assessed.

D16. SCHEDULED MAINTENANCE

D16.1 The Contractor shall perform the following scheduled maintenance in the manner and within the time periods required by the Specifications:

(a) Thirty day sod maintenance as specified in CW 3510-R10 Sodding;

D16.2 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

D17. JOB MEETINGS

D17.1 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.

D17.2 The Contract Administrator reserves the right to cancel any job meeting or call additional job meetings whenever he deems it necessary.

D18. PRIME CONTRACTOR – THE WORKPLACE SAFETY AND HEALTH ACT (MANITOBA)

D18.1 Further to C6.24, the Contractor shall be the Prime Contractor and shall serve as, and have the duties of the Prime Contractor in accordance with The Workplace Safety and Health Act (Manitoba).

MEASUREMENT AND PAYMENT

D19. PAYMENT

D19.1 Further to C12, effective January 1, 2007 the City may at its option pay the Contractor by direct deposit to the Contractor's banking institution.

WARRANTY

D20. WARRANTY

- D20.1 Notwithstanding C13.2, the warranty period shall begin on the date of Total Performance and shall expire one (1) year thereafter, except where longer warranty periods are specified in the respective Specification sections, unless extended pursuant to C13.2.1 or C13.2.2, in which case it shall expire when provided for thereunder.
- D20.1.1 For the purpose of Performance Security, the warranty period shall be one (1) year.
- D20.2 Notwithstanding C13.2, the Contract Administrator may permit the warranty period for a portion or portions of the Work to begin prior to the date of Total Performance if a portion of the Work cannot be completed because of unseasonable weather or other conditions reasonably beyond the control of the Contractor but that portion does not prevent the balance of the Work from being put to its intended use.
- D20.2.1 In such case, the date specified by the Contract Administrator for the warranty period to begin shall be substituted for the date specified in C13.2 for the warranty period to begin.

FORM H1: PERFORMANCE BOND
(See D9)

KNOW ALL MEN BY THESE PRESENTS THAT

_____ (hereinafter called the "Principal"), and

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

_____ dollars (\$_____)

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

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

_____ day of _____, 20____, for:

BID OPPORTUNITY NO. 413-2008

KEENLEYSIDE & DONWOOD PARKS SITE WORK

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

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

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

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

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

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

_____ day of _____, 20_____.

SIGNED AND SEALED
in the presence of:

(Witness)

(Name of Principal)

Per: _____ (Seal)

Per: _____

(Name of Surety)

By: _____ (Seal)
(Attorney-in-Fact)

**FORM H2: IRREVOCABLE STANDBY LETTER OF CREDIT
(PERFORMANCE SECURITY)**
(See D9)

(Date)

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

RE: PERFORMANCE SECURITY - BID OPPORTUNITY NO. 413-2008

KEENLEYSIDE & DONWOOD PARKS SITE WORK

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

(Name of Contractor)

(Address of Contractor)

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

_____ Canadian dollars.

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

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

Partial drawings are permitted.

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

(Address)

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

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

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

(Date)

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

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

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

(Name of bank or financial institution)

Per: _____
(Authorized Signing Officer)

Per: _____
(Authorized Signing Officer)

PART E - SPECIFICATIONS

GENERAL

E1. APPLICABLE SPECIFICATIONS AND DRAWINGS

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

<u>Drawing No.</u>	<u>Drawing Name/Title</u>
L-1	Cover Sheet
L-2	Site Plan
L-3	Layout Plan
L-4	Grading Plan

E2. PROTECTION OF THE SURVEY INFRASTRUCTURE

- E2.1 Nonwithstanding CW 1130-R1 3.14 'Protection of Survey Infrastructure' of the Standard Construction Specifications, current legislation, The Surveys Act, places the onus on those undertaking construction to protect the Survey Infrastructure from damage as a result of their activity.
- E2.2 Further to C:6.26(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 986-4826 (8:00 a.m. to 4:00 pm Monday to Friday excluding holidays) to obtain 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.
- E2.3 Where a survey post, bar, or control monument lies in the line of 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.
- E2.4 Outline survey monuments and geodetic control monuments at or adjacent to the Site, not in line of the proposed construction that are damaged or disturbed by the Contractor shall be replaced or relocated by the City or its agent and all associated costs shall be paid for by the Contractor. An approximate estimate of the costs involved to restore a legal survey monument is \$1000 per bar and \$3000 per control monument. Contractors must ensure SubContractors are aware of this clearance procedure and the potential restoration costs.
- E2.5 Where possible, amounts owed to the City in accordance with the above will be deducted from any payments to be made by the City to the Contractor.

E3. DEMOLITION AND REMOVALS

- E3.1 This section shall cover the removal of existing play equipment and Site Furnishing where scheduled for removal. It shall also cover any other demolition and removal necessary to construct the project which may be considered incidental to other items of Work.
- E3.2 The removal of existing play components shall not occur until after permission to proceed has been received by the Contract Administrator.
- E3.3 To the extent and limits shown on the Drawings, where the existing crusher fines paving, asphalt paving, and play surfacing is to be removed, the existing material is to be excavated to a depth sufficient to remove the existing granular material in its entirety.
- E3.4 Excavated granular material is to be removed from the Site and disposed of in a legally acceptable manner. Should the quality of existing granular material be acceptable and the contamination of the material with clay or soil be minimal and following inspection and approval of the granular material by the Contract Administrator, the granular material may be used in the base layer of the new crusher fines paving.
- E3.5 Grassed areas specified for removal shall have the grass surface and growing medium (soil) removed to the elevation of subsurface layer (clay). The excavated material shall be removed from the Site and disposed of or recycled in an environmentally responsible and legal manner.
- E3.6 Where play equipment is scheduled for removal this equipment and its foundation is to be removed in its entirety.
- (a) Play equipment is to be removed prior to removal of safety surfacing.
- E3.7 Measurement and payment for this section shall be on the following basis;
- (a) Removal of surplus fill material shall be considered incidental to the portions of Work that generated the fill. There will be no separate measurement or payment for this portion of the Work.
- (b) Removal of existing play surfacing shall be considered incidental to the grading component and shall be paid for under the unit price for that item found on Form B : Prices.
- (c) Removal of the following items shall be a lump sum item and paid for at the lump sum amount found on Form B :Prices Items 1 Demolition/Removals;
- (i) existing Site furniture and play equipment
- E3.8 There will be no measurement or additional payment for removal of any material beyond that approved by the Contract Administrator prior to the commencement of excavation/demolition.

E4. EARTHWORK AND GRADING

- E4.1 This specification shall cover all clearing and grubbing, excavation, stockpiling of topsoil, removal or supply and placement of materials necessary to achieve the grades and drainage patterns documented in the Drawings at the sub grade (mud grade) level.
- E4.2 This specification is supplemental to CW 3010 , CW 3110 and CW 3170. Materials and installation are to conform to these standard Specifications.
- E4.3 Clearing and grubbing operations are to be completed to the satisfaction of the Contract Administrator prior to the beginning of Earthwork and Grading.
- E4.4 Earthwork and Grading shall be paid for at the unit price for 'Rough Grading/Excavation for Paths and Play Surfaces' as is appropriate based upon a measure of the actual area graded in accordance with the plans and Specifications.
- E4.5 There will be no separate measurement or payment for stockpiling of topsoil, clearing and grubbing operations, excavation, or supply or removal of fill material as these shall be considered incidental to the Earthwork and Grading operations.

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E4.6 Excavation required for installation of sod, play equipment, and site furniture and shall be considered incidental to the supply and installation of those items and will not be measured or paid for separately.

E5. SUB-SURFACE DRAINAGE

E5.1 This Work shall consist of providing and placing a geocomposite prefabricated drain system as described in the drawings. The drainage system shall be installed in accordance with these Specifications and in reasonably close conformity with the locations and dimensions as shown on the drawings or specified by the Contract Administrator. The quantities of drain as shown on the drawings may be increased or decreased at the direction of the Contract Administrator based on actual Site conditions that occur during construction of the project. Such variations in quantity will not be considered as alterations in the details of construction or a change in the character of the Work.

E5.2 The drain conduit shall be of flexible, prefabricated, rounded rectangular shaped, composite product. The drain conduit shall be wrapped with a non-woven geotextile and shall be a non-woven needle-punched construction and consist of long-chain polymeric fibers composed of polypropylene, polyethylene or polyamide. The fibers shall be oriented into a multi-directional stable network whereby they retain their positions relative with each other and allow the passage of water as specified. The fabric shall be free of any chemical treatment or coating, which reduces permeability and shall be inert to chemicals commonly found in soil. The geotextile shall conform to the following minimum average roll values.

Weight	ASTM D-3776	3.0 - 4.0
Tensile Strength	ASTM D-4632	100 - 130
Elongation %	ASTM D-4632	50 - 70
Puncture, lb	ASTM D-751	35 - 60
Mullen Burst, psi	ASTM D-3786	110 - 215
Trapezoidal Tear, lb	ASTM D-4533	40 - 42
Coefficient of Permeability	ASTM D-4491	.2 - .4 cm/sec
Flow Rate, gpm/ft ²	ASTM D-4491	100 - 140
Permittivity, 1/sec	ASTM D-4491	1.3 - 2.0
Apparent Opening Size	ASTM D-4751	60/70 Max. US Std Sieve Opening
Seam Strength, lb/ft	ASTM D-4595	100
Fungus	ASTM G-21	No growth

E5.3 The drainage core shall be made of a high-density polyethylene. The core shall be constructed using interconnected corrugated pipes that define and provide the flow channels and structural integrity of the drain. The geotextile shall function only as a filter. The core of the edge drain shall conform to the following physical property requirements.

Thickness, inches	ASTM D-1777	1.0
Flow Rate, gpm/ft ^{***}	ASTM D-4716	30

Compressive Strength, psf	STM D-1621 (modified sand method)	6000
Pipe Stiffness, pii	ASTM D-2412	100

*** At gradient = 0.01, pressure = 10 psi for 100 hours.

- E5.4 The fittings used with the edge drain shall be of a "snap together" design. In no case shall any drainage product be joined without the use of the manufacturers connector designed specifically for the purpose.
- E5.5 Drainage pipe shall be Multi-Flow or approved substitute in accordance with B6. Size shall be 150 mm. All fittings shall be sized to fit approved for use with Multi-Flow or approved substitute in accordance with B6. Cleanouts shall be provided as indicated on the drawing.
- E5.6 Where specified the emitter shall be NDS #620 or approved substitute in accordance with B6.
- E5.7 Pipe for edge drain outlet laterals shall be either PVC pipe meeting the requirements of ASTM D-2729 or ASTM F-949, or high-density polyethylene pipe meeting the requirements of AASHTO M252. 2.4 A rodent screen made of 7.6 mm by 7.6 mm square opening size, 1.6 mm gauge, stainless steel or galvanized, welded wire mesh shall be installed in each outlet lateral line. When using galvanized welded wire mesh, the rodent screen shall be galvanized after it has been formed to the shape and dimensions required.
- E5.8 Backfill shall be course sand whose particle size is defined as less than 5% retained on a #10 screen, and less than 5% passing through a # 30 screen. (US Std Sieve) In no case shall more than 1% pass a #60 screen.
- E5.9 The layout of the subdrain is to be marked on Site and approved by the Contract Administrator prior to trenching. The layout will be examined to ensure that it does not conflict with foundation locations for the play equipment.
- E5.10 Trenches are to be excavated with a trenching machine or by hand. Locations where the trench has to cross existing utilities, existing irrigation pipes and all other subsurface pipes or fixtures are to be excavated by hand. The amount of trench excavated at any time shall not exceed the amount of drain that can be set and backfilled completely prior to the end of that Working Day. Trench shall be of the width specified on the Drawings.
- E5.11 The bottom surface of the trench is to be free of loose particles and is to have the slope shown on the Drawings. Over excavation in the bottom of the excavation shall be backfilled to the proper grade with excavated material or sand prior to the placement of the drain. Where sand or excavated material is used to fill the trench to the proper elevation that material shall be compacted to 95% of standard proctor density using appropriate means. Where the trench is to pass through an area of existing sod the excavated material is not to remain on the grassed surface for a period longer than 24 hours. Excavated material if not required as fill elsewhere on Site shall be removed from Site and disposed of legally.
- E5.12 Multi-Flow drain pipe is to be placed in trench using Multi-Flow centering device. Trench is to be backfilled with coarse sand to the surface. Backfill shall be placed in maximum of 45 cm loose lifts. Backfill is to be lightly tamped into place and watered. In the case of trenches extending into existing grassed areas course sand backfill is to be seeded with grass seed.
- E5.13 Contractor is to maintain top surface of the backfilled sand mix even with the surrounding grade during the grow in phase.
- E5.14 Fittings for the drain shall be installed in accordance with the manufacturer's recommendations.
- E5.15 Any damaged edge drain or outlet lateral shall be replaced or repaired by splicing in an undamaged section of drain at the Contractor's expense.

E5.16 The Contractor shall be responsible for restoration of any surfaces damaged during the Work under this section. There shall be no separate measurement or payment for restoration Work required as a result of this Work.

E5.17 Measurement and payment shall be on a per linear meter basis for the actual length of pipe installed. All trenching, backfill, fittings, cleanouts, are to be considered incidental to the supply and installation of the pipe.

E6. SODDING

E6.1 This specification covers the removal of existing grass, topsoil or sand, levelling or excavating the area designated to receive sod, supply and installation of topsoil and sod, the topdressing and seeding of seam, edges and areas of minor Site restoration.

E6.2 Areas to be Sodded are to be laid out on Site and approved by Contract Administrator before commencing Work. Work outside the limits approved by the Contract Administrator will not be measured and will not be paid for under this section but considered incidental to the Work. Incidental Site restoration shall conform to the same Specifications.

E6.3 Topsoil and sod are to be supplied and installed as per CW 3510-R8 and CW 3540-R3.

E6.4 The compacted depth of topsoil shall be 10 cm.

E6.5 Measurement and Payment will be at the contract unit price per square meter for "Topsoil and Sod" as is appropriate. Measurement shall be of the actual area sodded as indicated on the drawings. Price shall be payment in full for supplying materials and for performing all operations listed below:

- (a) Supply and installation of topsoil.
- (b) Supply and placement of sod.
- (c) maintenance of sod.

E7. GRANULAR PAVING

E7.1 This specification covers the supply and installation of granular paving including all excavation, compaction, geotextile, sub-base and base construction as well as gravel surfacing, and repair of existing sod to ensure a smooth transition to the paving. Other items necessary to complete this portion of the Work and not noted elsewhere are considered incidental to this Work.

E7.2 This specification is supplemental to CW 3110, CW 3130 and CW 3170. Materials and installation are to conform to these standard Specifications.

E7.3 Sub-base, base materials and depths are as noted on drawing.

E7.4 Where the granular paving is to pass through an existing grassed surface the Contractor is to cut the sod using a sod cutter at the edges of the new paving prior to excavation.

E7.5 Except as specifically noted on the drawing areas of granular paving are to be constructed so as to function with existing drainage patterns and are to have a minimum cross slope of 2% and a maximum cross slope of 5%.

E7.6 Granular paving is to meet existing landscaping, concrete paving and roads in a neat and precise manner.

E7.7 Where rehabilitation of crusher fines paving is called for the Contractor shall destroy any weeds in the crusher fines path, scarify the path surface, compact, and install 40 mm of new 5 to 10 mm crusher fines limestone, wet the surface, and compact.

- E7.8 Measurement and Payment will be at the contract unit price per square meter for 'Crusher Fines Path'. Measurement shall be of the actual area covered by granular paving within the limits shown on the Drawings. Price shall be payment in full for supplying materials and for performing all operations listed below:
- (a) Stripping existing topsoil.
 - (b) Excavate in-situ material to accommodate the pavement structure including base and subbase.
 - (c) Supply and installation of Geotextile.
 - (d) Supply and placement of Crushed limestone base course.
 - (e) Supply and placement of Crushed surfacing.
 - (f) Compaction
 - (g) Repair of grass (tie-in) at edge of newly constructed paving.

E8. SITE FURNITURE

E8.1 Description

- E8.1.1 This specification shall cover the supply and installation of Tache Composite Benches and Accessible Picnic Tables as called for on the drawings as well as the relocation of the existing Sand Box. The Contractor shall furnish all labour, materials, equipment and services necessary to complete the Work as shown and specified herein.

E8.2 Materials

- E8.2.1 All materials supplied under this specification shall be of a type approved by the Contract Administrator, and shall be subject to inspection and testing by the Contract Administrator.

- E8.2.2 Benches shall be "Tache Bench - Composite" as per SCD-120A as called for on the drawings, or substitute in accordance with B6.

- E8.2.3 Picnic Table shall be DuMor Recyled Plastic Picnic Table 156-68-1PL (Contact: GAT Home Company Ltd. – Neil Buller 943-5050), Wheel Chair Metal Frame Picnic Table SCD 130a (Contact Aaron Lennon City of Winnipeg), or approved equal.

- E8.2.4 Contact for both Benches:

Aaron Lennon
Supervisor of Central Repair/Manufacturing Facility
City of Winnipeg
Fleet Management Agency Division
Public Works Department
215 Tecumseh St
Winnipeg. MB R3E 3S4
Telephone No. (204) 986-5505
Facsimile No. (204) 986-1248

- E8.2.5 Play Sand shall be natural washed sand of rounded particles, free of fines, clay, silt, stones or other debris and shall meet the following criteria:

- (i) 100% passing 6.7 mm sieve;
- (ii) 99.5% passing 4.75 mm sieve;
- (iii) 97-100 % passing 2.36 mm sieve;
- (iv) 70-90 % passing 1.18 mm sieve;
- (v) 25-60% passing 600 um sieve;
- (vi) 5-25% passing 300 um sieve;
- (vii) 0-3 % passing 150 um sieve;

(viii) 0-1% passing 75 um sieve.

E8.3 Construction Methods

- E8.3.1 All Work is to be located and installed in accordance with the Drawings, SCD-120A, and SCD-130A , 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.
- E8.3.2 All furnishings and fixtures to be installed plumb and true to correct elevations and location, as directed the Contract Administrator. The Contractor shall confirm proposed locations of all site furnishings with Contract Administrator prior to installation.
- E8.3.3 All furnishings and fixtures to be carefully handled so that no parts will be bent, broken or otherwise damaged. Hammering, which will injure or distort fixture, is prohibited.
- E8.3.4 Install Benches as per SCD-120a instructions.
- E8.3.5 Existing sand box is to be lifted from its current location and reinstalled as shown on the drawings. Once reinstalled the Contractor is to fill the sand box with play sand.

E8.4 Method of Measurement and Basis of Payment

- E8.5 Measurement and payment shall be for each as per Form B: Prices. Said price shall include all Work necessary to supply and/or remove and refurbish and install each item of Site furniture.

E9. TIMBER PLAYGROUND CURB

E9.1 General Description

- E9.1.6 The Contractor shall furnish all labour, materials, equipment and services necessary to complete the work according to the drawings and specifications.
- E9.1.7 This specification shall cover the supply and installation of the timber playground curb to contain the safety surfacing for the playground areas.

E9.2 Materials and Method

- E9.2.1 Layout shall be as per the drawings. Contractor to locate accessible entry points as directed by contract administrator.
- E9.2.2 Wood kind shall be as specified on the drawings. Wood shall be smooth and free of rough areas. All timbers to be 150 x 150 mm with a minimum length of 1200mm. Top edges of all exposed timbers shall have an 8mm 45° chamfer.
- E9.2.3 Base course timbers shall be pinned with a minimum of two (2) 19mm diameter by 900 mm rebar at maximum 1200 mm O.C.. All rows of timber and timber cap above base course shall be securely spiked with a minimum of two (2) 12 mm diameter by 250mm spikes predrilled at maximum 1200 mm O.C..
- E9.2.4 All timbers shall be cut neatly for a proper fit with no spaces or gaps between. Finished elevations shall ensure that all timbers are smooth, level, set plumb and spaced uniformly.
- E9.2.5 Turf shall be repaired as required around edging in accordance with City of Winnipeg standard specification for Topsoil and Sod or Topsoil and Seeding as appropriate

E9.3 Method of Measurement and Basis of Payment

- E9.3.1 Timber Playground curb will be measured on a linear meter basis for the length of curb actually installed. In the case of two layer Playground Curbs the two layers will not be measured separately but will be measured as a single unit.
- E9.3.2 Payment shall be at the Contract Unit Prices as indicated by the Bidder on Form B:Prices. This price shall be full payment for supplying all layout, equipment, and materials, and

performing all operations herein described and all other items incidental to the Work and as accepted by the Contractor.

E10. PROTECTION OF EXISTING TREES

- E10.1 The Contractor shall take the following precautionary steps to prevent damage from construction activities to existing trees, and trees within the Site, within the limits of the construction area. If the Contractor requires further information on these specifications, contact the City of Winnipeg Forestry Branch at 986-2004.
- (a) All construction traffic shall be restricted to the limits of construction shown on the drawings.
 - (b) Excavation equipment shall be track based.
 - (c) For trees greater than 100 mm in diameter, located within 3 meters of the limits of construction, attach wood strapping material having a minimum thickness of 25 millimetres and minimum length of 2440 millimetres around the tree trunks in a manner that will not harm the trees. Do not use nails or other fasteners that penetrate the tree trunk. The width of the strapping may be reduced to suit tree being protected. Length of strapping may be reduced to suit tree being protected as approved by the Contract Administrator.
 - (d) For trees less than 100 mm in diameter, install PVC safety fencing around the tree to a 2.0 metre radius complete with installation hardware, to adequately support the safety fence. The 2.0 metre radius safety fence may be reduced to suit the tree being protected as approved by the Contract Administrator.
 - (e) PVC Safety fencing is to be installed at the locations shown on the drawings and to the extent shown on the drawings.
 - (f) Operation of equipment within the dripline of the trees shall be kept to the minimum required to perform the Work and shall be approved by the Contract Administrator prior to the commencement of Work. Equipment shall not be parked, repaired, refuelled; construction materials shall not be stored, and earth materials shall not be stockpiled within the driplines of the trees. The dripline of a tree shall be considered to be the ground surface directly beneath tree from the tree trunk to 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.
 - (g) Repair, replace and maintain tree protection materials during construction until such time no equipment will be working in the area.
 - (h) Remove safety fencing and strapping material without harming the trees as soon as the construction and restoration Work is complete.
- E10.2 Obtain approval from the Contract Administrator to excavate within 2.0 metres of a tree.
- E10.3 Excavate in a manner to minimize damage to the tree root systems. Keep exposed roots in excavations and trenches moist or shaded. If stockpiling of excavated soil material is required, stockpile in areas away from the tree roots if possible.
- E10.4 Tree protection PVC fencing shall be measured on a linear meter basis for fencing actually installed on the Site in accordance with the drawings. It shall be paid for on the basis of the unit price in the schedule of prices.
- E10.5 Tree protection (Trunk armouring) as described in E10.1 (c) shall be measured on a per tree basis. Only trees falling within the limits shown on the drawings and noted in E10.1 (c) shall be measured. Trunk protection shall be paid for on the basis of the unit price in the schedule of prices.
- E10.6 All other items of tree protection shall be considered incidental to the Work and shall not be measured or paid for separately.

E11. PRECAST CONCRETE RETAINING WALLS

- E11.1 This section shall cover the supply and installation of precast concrete retaining walls.
- E11.2 Retaining walls shall be Barkman Pisa II walls or substitute approved in accordance with B6. Colour shall be Charcoal.
- E11.3 Capstone shall be Barkman Split face cap or substitute approved in accordance with B6. Colour shall be Charcoal.
- E11.4 Granular limestone base is to be crushed stone or gravel having hard angular particles, free from clay lumps, cementation, organic material, frozen material or other deleterious materials.
- E11.5 Geotextile shall be non-woven and installed as shown on the drawings. It shall have an apparent opening size of between 0.149 mm and .210 mm and a minimum unit weight of 135 grams per sq. m.
- E11.6 Weeping tile or Multi-Flo drainage medium shall be placed at the base of the wall in a manner consistent with the details provided. It shall be connected to the playground subsurface drain or drain to air.
- E11.7 The Contractor shall excavate for the base course, compact, install the geotextile, install the base granular and compact to 100% of proctor density. He shall then build the wall in accordance with manufacturers instructions, backfilling with granular as necessary.
- E11.8 The top two courses of the wall shall be attached with continuous concrete adhesive. (mastic)
- E11.9 Measurement and payment shall be per Linear Meter of wall length as shown on the Drawings. Walls segments of different heights, individual rows of blocks or capstone length will not be measured separately. Said measure and payment shall be understood to include all items necessary and incidental to supply and installation of the wall including but not limited to excavation, compaction, adhesives, and granular.