



THE CITY OF WINNIPEG

BID OPPORTUNITY

BID OPPORTUNITY NO. 419-2012

PASCOE PLAYGROUND – PLAYGROUND REDEVELOPMENT

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PART B - BIDDING PROCEDURES

B1. CONTRACT TITLE

B1.1 PASCOE PLAYGROUND – PLAYGROUND REDEVELOPMENT

B2. SUBMISSION DEADLINE

B2.1 The Submission Deadline is 4:00 p.m. Winnipeg time, June 20, 2012.

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

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

B3. SITE INVESTIGATION

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

B3.2 The Bidder is advised that the Site should be investigated prior to submitting a bid to determine the best access route into the Site and to determine how they will drain the surface of the Site, and the underground Fibar areas.

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 Division website at <http://www.winnipeg.ca/matmgt/>

- B5.2.2 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.
- 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/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.
- 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/she 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/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.
- 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.

B6.10 Notwithstanding B6.2 to B6.9, and in accordance with B7.7, deviations inconsistent with the Bid Opportunity document shall be evaluated in accordance with B16.1(a).

B7. BID COMPONENTS

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

- (a) Form A: Bid;
- (b) Form B: Prices;
- (c) Design Drawings as Per B11, and;
- (d) Component Descriptions as per B12
- (e) Proof of COR Certification as per B10.4.a

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 Submission may be submitted by mail, courier or personal delivery, or by facsimile transmission.

B7.5 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

B7.5.1 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.

B7.6 Bidders are advised not to include any information/literature except as requested in accordance with B7.1.

B7.7 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).

B7.8 If the Bid Submission is submitted by facsimile transmission, it shall be submitted to 204 949-1178.

B7.8.1 The Bidder is advised that the City cannot take responsibility for the availability of the facsimile machine at any time.

B7.8.2 Bids submitted by internet electronic mail (e-mail) will not be accepted.

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/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.

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/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.

B8.4.1 The name and official capacity of all individuals signing Form A: Bid should be printed below such signatures.

B8.4.2 All signatures shall be original.

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 Bidder must complete the Approximate Quantity column for Items 4, 5, 8, 9, and 10 on Form B: Prices. These quantities are dependent on the proposed design as submitted and must be sufficient to undertake all the Work shown on the drawings and Bid Submission.

B9.4 The quantities for which payment will be made to the Contractor are to be determined by the Work actually performed and completed by the Contractor, to be measured as specified in the applicable Specifications.

B9.5 Payments to Non-Resident Contractors are subject to Non-Resident Withholding Tax pursuant to the Income Tax Act (Canada).

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 Division website at <http://www.winnipeg.ca/matmgt/debar.stm>

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 Further to B10.3(c), the Bidder shall include with the Bid Submission, proof satisfactory to the Contract Administrator that the Bidder/Subcontractors has a workplace safety and health program meeting the requirements of The Workplace Safety and Health Act (Manitoba), by providing:

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

B10.5 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.

B10.6 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.

B11. DESIGN DRAWINGS

B11.1 The Bidder shall submit drawings (maximum 11" x 17" size) that illustrate the proposed design and play equipment, such as plan, perspective and any other submissions to illustrate the design intent. At least one overall Site plan drawing must be submitted showing the location of the play equipment and all Site restoration work to the outer fence limit. Additional drawings may be requested prior to award for more detailed information.

B12. COMPONENT DESCRIPTION

B12.1 The Bidder shall submit component description and / or graphic or catalogue reference outlining specifications of play components.

B13. OPENING OF BIDS AND RELEASE OF INFORMATION

B13.1 Bids will not be opened publicly.

- B13.2 Following the submission deadline, the names of the Bidders and their Total Bid Prices (unevaluated, and pending review and verification of conformance with requirements) will be available on the Closed Bid Opportunities (or Public/Posted Opening & Award Results) page at The City of Winnipeg, Corporate Finance, Materials Management Division website at <http://www.winnipeg.ca/matmgt/bidopp.asp>
- B13.3 After award of Contract, the name(s) of the successful Bidder(s) and the Contract amount(s) will be available on the Closed Bid Opportunities (or Public/Posted Opening & Award Results) page at The City of Winnipeg, Corporate Finance, Materials Management Division website at <http://www.winnipeg.ca/matmgt/>
- B13.4 The Bidder is advised that any information contained in any Bid may be released if required by City policy or procedures, by The Freedom of Information and Protection of Privacy Act (Manitoba), by other authorities having jurisdiction, or by law.

B14. IRREVOCABLE BID

- B14.1 The Bid(s) submitted by the Bidder shall be irrevocable for the time period specified in Paragraph 9 of Form A: Bid.
- B14.2 The acceptance by the City of any Bid shall not release the Bids of the next two lowest evaluated responsive Bidders and these Bidders shall be bound by their Bids on such Work for the time period specified in Paragraph 9 of Form A: Bid.

B15. WITHDRAWAL OF BIDS

- B15.1 A Bidder may withdraw his/her Bid without penalty by giving written notice to the Manager of Materials at any time prior to the Submission Deadline.
- B15.1.1 Notwithstanding C23.3, the time and date of receipt of any notice withdrawing a Bid shall be the time and date of receipt as determined by the Manager of Materials.
- B15.1.2 The City will assume that any one of the contact persons named in Paragraph 3 of Form A: Bid or the Bidder's authorized representatives named in Paragraph 10 of Form A: Bid, and only such person, has authority to give notice of withdrawal.
- B15.1.3 If a Bidder gives notice of withdrawal prior to the Submission Deadline, the Manager of Materials will:
- (a) retain the Bid until after the Submission Deadline has elapsed;
 - (b) open the Bid to identify the contact person named in Paragraph 3 of Form A: Bid and the Bidder's authorized representatives named in Paragraph 10 of Form A: Bid; and
 - (c) if the notice has been given by any one of the persons specified in B15.1.3(b), declare the Bid withdrawn.
- B15.2 A Bidder who withdraws his/her Bid after the Submission Deadline but before his/her Bid has been released or has lapsed as provided for in B14.2 shall be liable for such damages as are imposed upon the Bidder by law and subject to such sanctions as the Chief Administrative Officer considers appropriate in the circumstances. The City, in such event, shall be entitled to all rights and remedies available to it at law.

B16. EVALUATION OF BIDS

- B16.1 Award of the Contract shall be based on the following bid evaluation criteria:
- (a) compliance by the Bidder with the requirements of the Bid Opportunity or acceptable deviation there from (pass/fail);
 - (b) qualifications of the Bidder and the Subcontractors, if any, pursuant to B10 (pass/fail);
 - (c) Total Bid Price: (10 points) pursuant to B11;

- (d) Design Drawings/Component Descriptions (90 points) pursuant to B11;
 - (e) economic analysis of any approved alternative pursuant to B6.
- 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 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.
- B16.4.2 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.
- B16.4.3 Further to B14.1(c) the Award Authority may reject a Bid as being non-responsive if it exceeds the budget as shown on Form B: Prices.
- B16.4.4 The Total Bid Price shall be evaluated with a weighting of 10 points out of a total of 100 possible points. As such, the lowest Bidder shall receive the full 10 points, and the second lowest Bidder and subsequent Bidders shall be pro-rated accordingly.
- B16.5 Further to B16.1(d). Play Areas shall be evaluated with a weighting of 90 points out of a total of 100 possible points. Play Areas will be evaluated considering the Bidder's Bid Submission and any other information required.
- B16.5.1 The Design shall be evaluated on the following criteria:
- (a) compliance with CSA Standards (pass/fail);
 - (b) The design submission shall include approximately 60 -70% of the play value towards the Age 2-5 area/equipment, and 30 – 40% of the play value towards the Age 5-12 area/equipment. The swings will not form part of the play value calculation. The Designed for inclusive play using Universal Design principles is not required for the Age 5-12 play equipment area.
 - (c) play value (maximum 40 points):
 - (i) 6 points – Sensory/ Imaginative Play component(s), including fine motor skills;
 - (ii) 14 points – Climbing Component(s);
 - (iii) 7 points – Motion Component(s);
 - (iv) 3 points – Sliding Component(s);
 - (v) 5 points - Provides opportunities for appropriate social / interpersonal interaction and cooperative play.
 - (vi) 5 points- compliance of play value ie: percentage assignment to the respective play areas as noted in B16.5.1(b)
 - (d) Designed for inclusive play using Universal Design principles (– (maximum 10 points):
 - (i) Complies with section 4.5.4 of the 2006 City of Winnipeg Accessibility Design Standards (www.winnipeg.ca/ppd/UD/default.stm)(pass/fail);
 - (ii) 5 points - Layout of the play area for integration of wheelchair accessible components to promote inclusive play;
 - (iii) 5 points – Provision of tactile and auditory play experiences.

- (e) Layout/circulation (maximum 25 points):
 - (i) 10 points - Efficient use of space within and between play elements;
 - (ii) 7 points - Flow and relationship between play area activities;
 - (iii) 3 points - Layout / orientation of components on Site and in relation to park entrances and seating areas;
 - (iv) 3 points - Orientation to provide good visibility to play area from the adjacent road;
 - (v) 2 points - Slide orientation (metal facing north).
- (f) Durability (maximum 10 points):
 - (i) Use of durable / temper-resistant materials, low maintenance finishes and connector systems & ease of repair / replacement of the products used with the playground area.
- (g) Drawing and Design Submission Clarity (maximum 5 points):
 - (i) 2 points- Drawing submission including complete Site plan to outer fence limit clearly showing the location of all play equipment, safety surfacing boundaries and all Site restoration requirements, including conceptual Site drainage flow arrow patterns.
 - (ii) 3 points – clarity of drawings, play component literature, photos, 3-d drawings, isometrics, and all other data submissions that allow the design submission to be clearly understood.

B16.6 Further to B16.5.1(a), if Contractor states play equipment components are compliant with CSA Standards which are not, liquidated damages shall be charged as per D14, should this result in additional design and/or meeting time on the part of the Contract Administrator.

B16.7 Further to B9.3, no additional payment will be made to the Contractor for any additional material or labour required to supply and install more quantities of materials, over and above those quantities listed in the Form B Prices, for the items/quantities the Contractor has provided and estimated to be required, to complete the Work as per their Design Submission.

B17. AWARD OF CONTRACT

B17.1 The City will give notice of the award of the Contract or will give notice that no award will be made.

B17.2 The City will have no obligation to award a Contract to a Bidder, even though one or all of the Bidders are determined to be responsible and qualified, and the Bids are determined to be responsive.

B17.2.1 Without limiting the generality of B17.2, the City will have no obligation to award a Contract where:

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

- B17.3 Where an award of Contract is made by the City, the award shall be made to the responsible and qualified Bidder submitting the lowest evaluated responsive Bid, in accordance with B16.
- B17.3.1 Following the award of contract, a Bidder will be provided with information related to the evaluation of his/her Bid upon written request to the Contract Administrator.
- B17.4 Notwithstanding C4, the City will issue a Purchase Order to the successful Bidder in lieu of the execution of a Contract.
- B17.5 The Contract, as defined in C1.1, in its entirety shall be deemed to be incorporated in and to form a part of the Purchase Order notwithstanding that it is not necessarily attached to or accompany said Purchase Order.

PART C - GENERAL CONDITIONS

C0. GENERAL CONDITIONS

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

PART D - SUPPLEMENTAL CONDITIONS

GENERAL

D1. GENERAL CONDITIONS

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

D2. SCOPE OF WORK

D2.1 The Work to be done under the Contract shall consist of the supply and installation of play equipment at Pascoe Playground located on Jordan Street in Winnipeg.

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

- (a) Excavation and removal of existing sand base and sod;
- (b) Supply and installation of new play equipment;
- (c) Supply and installation of timber edging, drainage layer and safety surfacing;
- (d) Supply and installation of rubber safety surfacing;
- (e) Supply and installation of topsoil and sod;
- (f) Installation only of benches and waste receptacles

D3. CONTRACT ADMINISTRATOR

D3.1 The Contract Administrator is Ken Rech Landscape Architects Inc., represented by:

Ken Rech
Landscape Architect
Telephone No. 204 489-6616
E-mail: kenrech@mymts.net

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

D3.3 Bids Submissions must be submitted to the address in B7.5.

D4. CONTRACTOR'S SUPERVISOR

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

D5. 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 facsimile number identified in D3.1.

D5.3 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

- 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 facsimile number:

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

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 Division website at <http://www.winnipeg.ca/matmgt/Safety/default.stm>

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 Ken Rech Landscape Architects Inc. 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.
- 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 thirty (30) Calendar Days prior written notice to the Contract Administrator.

D9. PERFORMANCE SECURITY

D9.1 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.

D9.1.1 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.

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 C 4.1 for the return of the executed contract.

D11.2 Detailed Work Schedule shall consist of the following dates:

- (a) Start date;
- (b) Excavation & disposal;
- (c) Installation of timber edging, safety surfacing and sub-surface drainage;
- (d) Installation of play equipment;
- (e) Installation of soil and sod;
- (f) Installation of chain link fencing
- (g) Installation of gravel walkways and
- (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/she 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) the Safe Work Plan specified in D7;
- (iv) evidence of the insurance specified in D8;
- (v) the performance security specified in D9; and
- (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 order the play equipment and submit this information to the Contract Administrator within seven (7) Working Days of receipt of the Purchase Order.

D12.4 The Contractor shall not commence the Work on the Site before September 4, 2012.

D12.5 The City intends to award this Contract by July 25, 2012.

D12.5.1 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.

D13. SUBSTANTIAL PERFORMANCE

D13.1 The Contractor shall achieve Substantial Performance by October 1, 2012.

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 re-inspected.

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 by October 9, 2012.

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 re-inspected.

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 or Total Performance in accordance with the Contract by the day fixed herein for same, the Contractor shall pay the City the following amounts per Calendar Day for each and every Calendar Day following the day fixed herein for the same during which such failure continues:

- (a) Substantial Performance – five hundred dollars (\$500)
- (b) Total Performance – five hundred dollars (\$500)

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 Substantial Performance or 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) Topsoil and Sod as specified in E10;

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/she 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. INVOICES

D19.1 Further to C12, the Contractor shall submit an invoice for each portion of Work performed. to:

The City of Winnipeg
Corporate Finance - Accounts Payable
4th Floor, Administration Building, 510 Main Street
Winnipeg MB R3B 1B9

Facsimile No.: 204-949-0864
Email: CityWpgAP@winnipeg.ca

D19.2 Invoices must clearly indicate, as a minimum:

- (a) the City's purchase order number;
- (b) date of delivery;
- (c) delivery address;
- (d) type and quantity of work performed;
- (e) the amount payable with GST and MRST shown as separate amounts; and
- (f) the Contractor's GST registration number.

D19.3 The City will bear no responsibility for delays in approval of invoices which are improperly submitted.

D19.4 Bids Submissions must be submitted to the address in B7.5.

D20. PAYMENT

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

WARRANTY

D21. WARRANTY

D21.1 Warranty is as stated in C13.

D23. EXISTING SERVICES AND UTILITIES

D23.1 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.

D24. ACCESS TO SITE

D24.1 Access to the Site as required by the Contractor shall be provided and maintained by the Contractor at his own expense and approved by the Contract Administrator.

D24.2 The Contractor is responsible to correcting all Site damage as a result of their operations, or accessing the Site at no further cost to the City. All repairs must be done to pre construction conditions.

D24.3 The Contractor's operations shall be limited to the minimum area necessary for undertaking the Work and he shall be responsible for all damage resulting from his Work on private property.

D25. PERMITS, NOTICES, LICENSES, CERTIFICATES, LAWS AND RULES

D25.1 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.

D25.2 The Contractor shall comply with all laws, ordinances, rules and regulations that would relate to the Work.

D25.3 All notices, consents, approvals, statements, authorizations, documents or other communications to the City shall be submitted to the Contract Administrator.

D25.4 All Work shall be performed in compliance with the Manitoba Workplace Health and Safety Act.

D25.5 All Work shall be performed in compliance with the Manitoba Workplace Health and Safety Fall Protection guidelines.

D25.6 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.

D26. DAMAGE TO EXISTING STRUCTURES, TREES AND PROPERTY

D26.1 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.

D26.2 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.

D26.3 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.

D26.4 No separate measurement or payment will be made for the protection of trees.

D27. SITE RESTORATION

D27.1 Total Performance of the Work shall not be attained until the Contractor has cleaned up the Site and has removed all tools, equipment, waste, debris and surplus foundation earth to the satisfaction of the Contract Administrator. Unless otherwise specified, the Contractor shall restore all areas of the Site beyond the established limit of Work, which have been disturbed by the Contractor's operations to as good as or better than the original condition to the satisfaction of the Contract Administrator. The Contractor shall pay all costs associated with this Work.

D28. PEDESTRIAN SAFETY AND TRAFFIC MANAGEMENT

D28.1 Further to CW 1130-R1, the Contractor shall take such measures as are necessary to ensure safe and convenient pedestrian ingress and egress is maintained to private properties while he is Working near them. Any damage caused by the negligence of the Contractor or his Sub-Contractors to the adjacent Works or properties, shall be promptly repaired by him at his own expense, to the satisfaction of the Contract Administrator.

D28.2 Ambulance/ Emergency vehicle access must be maintained at all times.

D29. PROTECTION OF THE SURVEY INFRASTRUCTURE

D29.1 Notwithstanding clause 4 "Protection of Survey Bars" of the Standard Provisions; Current legislation, The Surveys Act, places the onus on those undertaking construction to protect the Survey Infrastructure from damage as a result of their activity.

D29.2 Known survey monument locations are shown on drawing 1-L1 and there are two monuments located in the City boulevard area, along Jordan Street.

D29.3 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 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.

D29.4 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.

D29.5 Survey monuments and geodetic control monuments at or adjacent to the Site, not in the line of the proposed construction that are damaged or disturbed by the Contractor shall be replaced or relocated by the City or its agent and all associated costs shall be paid for by the Contractor. An approximate estimate of the costs involved to restore a legal survey monument is \$1,000 per bar and \$3,000 per control monument. Contractors must ensure their landscaping and other subcontractors are aware of this clearance procedure and the potential restoration costs.

D29.6 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.

D30. SITE ENCLOSURES

- D30.1 Temporary Site enclosures, The Contractor must fence off the Work area with a bright orange safety fence, securely staked to keep the fence in an upright position. This fence shall be installed at the commencement of construction and be maintained until the safety surfacing and topsoil and sod has been installed. For this Site the Contractor may close off all pedestrian and vehicle gates to prevent access to the Site.
- D30.2 Site enclosures shall be considered incidental to the Contract Work.

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 for

BID OPPORTUNITY NO. 419-2012

PASCOE PLAYGROUND – PLAYGROUND 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 D9)

(Date)

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

RE: PERFORMANCE SECURITY - BID OPPORTUNITY NO. 419-2012
PASCOE PLAYGROUND – PLAYGROUND 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 (1993 Revision), International Chamber of Commerce Publication Number 500.

(Name of bank or financial institution)

Per: _____
(Authorized Signing Officer)

Per: _____
(Authorized Signing Officer)

PART E - SPECIFICATIONS

GENERAL

E1. APPLICABLE SPECIFICATIONS AND DRAWINGS

- E1.1 These Specifications shall apply to the Work.
- E1.2 *The City of Winnipeg Standard Construction Specifications* in its entirety, whether or not specifically listed on Form B: Prices, shall apply to the Work.
- E1.2.1 *The City of Winnipeg Standard Construction Specifications* is available on the Information Connection page at The City of Winnipeg, Corporate Finance, Materials Management Division 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>
L1	Existing Site Plan / Demolition Plan
L2	Proposed Site Plan Concept
L3	Miscellaneous Details
SCD-116	Waste Receptacle Expanded Metal Basket
SCD-121A	Tache Bench Composite with Arms
SCD- 121C	Tache Backless Bench Composite with Arms
SCD 650a	Wood Fibre Safety Surfacing Drainage Diagram
SCD 651b	Pedra Timber Edging Detail
SCD 651f	Double Timber Edging Detail w/Composite Cap

E2. DEMOLITION, EXCAVATION, AND ROUGH GRADING

- E2.1 General Description
- E2.1.1 This specification shall cover the demolition and excavation and legal disposal of sand safety surfacing from old play areas to accommodate new topsoil and sod, as well as excavation for new play equipment area. It shall amend and supplement CW 3110-R11 and CW 3170. It shall also cover the provision of rough grading to ensure play equipment area will meet CSA standards for surfacing depth, play equipment areas will drain, and to ensure the newly sodded areas will drain.
- E2.1.2 The City of Winnipeg will remove all existing play equipment and timber edging. The Contractor shall remove all other Site elements shown on the drawing to be demolished or removed.
- E2.1.3 The Contractor must ensure that the rough grading does not create tripping hazards and no areas of standing water remain.
- E2.1.4 The Contractor must avoid sloping or grading any areas towards the existing wading pool. All new Site drainage is to be directed away from the wading pool area. Notify the Contract Administrator of any potential conflicts before commencing excavation.
- E2.1.5 All extraneous materials are to be removed from the Site and disposed of in a safe and legal manner. The Work to be done by the Contractor under this specification shall include all labour, equipment and material necessary for and incidental to the satisfactory performance and completion of the Work herein specified.
- E2.1.6 Work shall include but not be limited to the following:

- (a) Excavate, add clean fill if necessary, and rough grade excess soil to the limits shown on Drawings to the depths necessary to achieve finish grade for:
 - (i) Subsurface drainage and adequate safety surfacing.
 - (ii) Remove the existing sod shown within the limit of new sod and grading to a 75 mm depth below the new finish grade elevations.
 - (iii) Remove the existing sand safety surfacing to the full depth of the sand.
 - (iv) Removal of isolated asphalt pads, granular base, and old concrete bench footings.
 - (v) Removal of all existing benches, concrete footings and precast pavers.

E2.2 Construction Methods

- E2.2.1 Excavation includes the removal of items (i.e., sand, gravel, concrete footings, asphalt, earth) 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.
- E2.2.2 Do not disturb adjacent items designated to remain in place.
- E2.2.3 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.
- E2.2.4 Contractor must coordinate with the Contract Administrator to ensure all removals have occurred.
- E2.2.5 Excavation should be coordinated with the installation of play equipment, surfacing and sodding so as not to leave open excavation areas subject to ponding water.
- E2.2.6 Where fill is required to bring the subgrade up to the proper subgrade elevation use compacted clay fill, sloped to match the finish grade elevations. Fill below newly sodded areas shall be installed to a 75 mm depth below finish grade elevations and fill below wood fibre areas shall be installed to a 300 mm depth below finish grade elevations.
- E2.2.7 Where old footings are removed from the bench supports the holes shall be backfilled with compacted sand in 150 mm lifts.
- E2.2.8 The two benches located on the existing concrete paving by the northeast corner of the Site (new Age 2-5 play area) are to be removed by cutting or torching the metal legs off flush with the concrete. Once the legs are removed the Contractor shall grind all protruding metal flush with the concrete and fill any metal leg cavities full with masonry grout. Trowel top of grout smooth with top of the existing concrete paving.

E2.3 Method of Measurement and Basis of Payment

- E2.3.1 Method of Measurement shall be as follows:
 - (a) Demolition, excavation, and rough Grading shall be measured on a lump sum basis for:
 - (i) Item 1: "Demolition, excavation and rough Grading" on Form B: Prices.
 - (b) Basis of Payment shall be as follows:
 - (c) Demolition, excavation and rough grading will be paid for on a Lump Sum Basis on Form B: Prices. The amount to be paid for 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.

E3. PLAY EQUIPMENT

- E3.1 This specification shall cover the supply and installation of the Play Equipment as listed below and specified herein.

- E3.2 The Contractor shall furnish all labour, materials, equipment and services necessary to complete the Work according to the drawings and specifications.
- E3.3 The Contractor shall obtain all approvals including permit if required
- E3.4 Play Area:
- (a) There are two distinct and separate play equipment areas as shown on drawing L-2. One area shall be designed for children ages 2-5 and this equipment should include 60 -70% of the play value as the Site is heavily utilized by young children from the local daycare areas, and is to be designed to meet Universal Design Principles. The main play structure for that age group is to be installed on a rubber safety surfacing. The second area shall be designed for children 5-12 and does not have to be designed for Universal Design Principles, however the Contractor is encouraged to provide Universal Design Principles if possible.
 - (b) The play equipment shall be laid out in the general locations shown on drawing L-2. All shapes shown on drawing detail 1-L2 are Conceptual only and are intended to show the approximate area the equipment is to be located. The Bidder shall also try and maximize the distance between the wading pool and the timber edging around the age 5-12 play equipment.
 - (c) There is no overall theme for the play areas, and Bidders are free to choose their own theme if desired.
 - (d) The Age 5-12 play equipment should be designed to maximize the amount of climbing hanging components, and should minimize any large standing platforms. This equipment should also minimize the use of solid wall panels that block the views into the Site. The inclusion of a slide on the structure is not a priority or requirement. Overall visibility into the Playground from the street and City walks is important from a Site safety and supervision perspective, therefore the equipment shall be as visually transparent as possible. The age 5-15 play equipments should include a minimum of one (1) preferably more independent components which contain motion. The use of play panels for independent equipment is not acceptable.
 - (e) The Age 2-5 play equipment will be utilized by many local daycares and as such it is expected there will be many children using the equipment at the same time. Therefore the Contractor shall design the play structure and independents to accommodate multiple children play at one time ie: independent equipment should not be for single use where possible. The Age 2-5 playstructure is to be installed on a rubber surfacing. The play structure should be designed so daycare staff can see the maximum of the structure when standing by the wading pool. This structure may incorporate play panels within the structure, with some being utilized as independents, if desired by the Contractor. Multiple slides or opportunities for social interaction between the children are to be encouraged.
 - (f) The design submission shall be evaluated as per B16.
 - (g) Proposal may include independent components not requiring safety surfacing, outside of main play areas.
- E3.5 If colour is a feature of posts, top caps and panels, the Contract Administrator shall have the ability to modify specified colours from the proposed design after Contract Award. If the price of the equipment in the Bid Submission is subject to the colours of the proposed design, this must be indicated in the Bid Submission.
- E3.6 Components which are unacceptable are the following:
- (a) Wooden structures;
 - (b) Tube (enclosed) slides and enclosed crawl tubes;
 - (c) Play panels with many small moving parts;
 - (d) Talk Tubes;
 - (e) Barrel rollers; and

- (f) Large number of plastic components.
- (g) Brightly coloured hoods or roofs

E3.7 Components which are generally not accepted but may be considered are the following:

- (a) Cable rides;
- (b) Sand diggers;
- (c) Lightly coloured hoods or roofs.

E3.8 Playstructure Equipment

E3.8.1 General Description

- (a) Play equipment shall be installed in the general play areas as shown on the attached Drawing 1-L2. The play equipment and their safety zones should be sized to be located into the proposed play areas as shown on Drawing 1-L2. Efficiency and good use of space will be considered in the evaluation of submissions, particularly layouts which allow good supervision of the Age 2-5 play equipment by the Daycare staff.

E3.8.2 Materials

(a) Posts / Caps

- (i) All posts shall be a minimum 5" O.D. round or 4" square tubing.
- (ii) 3.5 " O.D. round or 3.0" square tubing will be permitted in circumstances where a multi-deck structure has decks of varied heights which are all under 4', or for structures with 2 decks or less.
- (iii) All posts shall be fabricated from either aluminum (0.125" min. wall thickness) or galvanized steel (0.120" min. wall thickness) tubing. All fabrication cuts, drill holes and weld joints shall be sprayed with a corrosion resistant coating. The bottom end of the posts is to be sealed with a moisture barrier.
- (iv) Top caps shall be made of steel construction and shall be factory installed and secured in place with tamper proof, self-sealing rivets. Plastic top caps will be accepted if made of solid construction (hollow caps not accepted).
- (v) If painted colour is a feature of posts and top caps, it shall be a baked-on polyester powder coating. The powder coating finish shall meet or exceed ASTM standards for hardness, adhesion, impact and salt spray resistance.

(b) Decks (if applicable)

- (i) All decks shall be manufactured from vinyl-coated perforated steel or a steel core composite. Deck heights may vary to a maximum height of 6'.

(c) Clamping System

- (i) All deck, rail and play component clamping systems shall be fabricated from zinc plated, galvanized steel, stainless steel or aluminum. Tamper proof, corrosion resistant fasteners shall be used to retain clamping systems.

(d) Handrails, Safety Rails and Handloops (if applicable)

- (i) All handrails, safety rails and hand-loops shall be fabricated using a minimum of 15/16" (24mm) O.D. with .120" wall thickness steel tubing. After all fabrication activities have occurred including end cuts, drill holes, bends and weld joints, all components shall be hot dipped galvanized.
- (ii) Smooth all cut edges and weld joints prior to hot dip galvanizing and ensure that all tubing is free from burrs, cracks, defects and other imperfections.

(e) Hardware

- (i) All fasteners shall be socketed and tamper proof in design, and either carbon steel plated with zinc/nickel and iridescent chromate finish or stainless steel.
- (ii) All necessary hardware shall be provided.

(f) Poly Components

- (i) Poly components such as slides and hoods shall be fabricated from U.V. stabilized, rotationally molded linear low-density polyethylene.
- (ii) Poly components such as play panels shall be fabricated from compression molded solid colour, U.V. stabilized, high-density polyethylene.
- (g) Slides (if applicable)
 - (i) Stainless steel is preferred for slide beds, although a plastic slide may be used if there is also a steel slide on the other side. North or east orientation preferred.
- (h) Each playstructure shall have kick plates and hand loops as required to meet the most recent Canadian Standards Association Standards.

E3.8.3 Installation

- (a) Play equipment shall be installed as per manufacturer's specifications and in accordance with the most recent Canadian Standards Association Standards.
- (b) All posts and other vertical items shall be plumb and true to vertical, if so designed.
- (c) All decks shall be level, if so designed.

E3.9 Independent Components

E3.9.1 General Description

- (a) The Contractor shall furnish all labour, materials, equipment and services necessary to complete the Work according to the specifications.
- (b) This specification shall cover the supply and installation of Independent Components as specified herein.
- (c) Independent Components may be installed as the proposed budget will allow. A minimum of one motion independent is encouraged to be included in the Submission.

E3.9.2 Materials

- (a) All materials shall be structurally sound and suitable for safe play. Durability shall be ensured on all parts and materials.
- (b) There shall be a minimum (or no) amount of hollow plastic components. Solid plastic is acceptable.
- (c) There shall be a minimum amount of solid elements which limit visibility through the Site.
- (d) Fasteners
 - (i) All hardware shall be tamper-proof in design and requiring special tools. It shall be either carbon steel plated with zinc/nickel and iridescent chromate finish or stainless steel. All necessary hardware and tools shall be provided.
- (e) Finishes
 - (i) Finishes shall meet or exceed ASTM standards for hardness, adhesion, impact and salt spray resistance. All fabrication cuts, drill holes and weld joints shall be sprayed with a corrosion resistant coating.
- (f) Slides
 - (i) If an independent slide is proposed, stainless steel is preferred. If other slides are proposed on the Site one may be plastic. North or east orientation preferred for stainless steel slides. If independent slide over 4' high is proposed, support posts must be minimum 5"O.D.
 - (ii) Tube (enclosed) slides and plastic spiral slides will not be accepted.

E3.10 Method of Measurement and Basis of Payment

E3.10.1 Method of Measurement shall be as follows:

- (a) Play Equipment shall be measured on a lump sum basis for:
 - (i) Item 2: "Supply and Install New Age 2-5 Play Equipment" on Form B: Prices.
 - (ii) Item 3: "Supply and Install New Age 5-12 Play Equipment" on Form B: Prices.

E3.10.2 Basis of Payment shall be as follows:

- (a) Play Equipment will be paid for at the Contract Unit Prices. The amount to be paid for shall be the total number of units including any independents, 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.

E4. SWING SET

E4.1 General Description

- E4.1.1 The Contractor shall furnish all labour, materials, equipment and services necessary to complete the Work according to the specifications.
- E4.1.2 The Contractor shall install two (2) swing sets in the general location shown on drawing detail 1-L2. Both these swings shall be installed against the railway lands side of the Site chain link fence, and the safety surfacing shall extend completely to the chain link fence.
- E4.1.3 This specification shall cover the supply and installation of two (2) complete swing standards as specified herein: Swing may be three leg or Arch leg.
 - (a) One (1), Three Leg Heavy Duty Swing Frame, 2.4m (8ft.) high, 1-Bay, complete with Two (2) slash-proof rubber, enclosed baby seats. Heavy-duty chain, swing hangers and hammer locks / bolt links.
 - (b) One (1), Three Leg Heavy Duty Swing Frame, 2.4m (8ft.) high, 2-Bay, complete with Four (4) slash-proof rubber belt seats. Heavy-duty chain, swing hangers and hammer locks / bolt links.

E4.2 Materials

E4.2.1 Topbeam

- (a) All topbeams shall be fabricated from 3 1/2" O.D. 7 gauge, RS40 galvanized steel pipe OR 2 3/8" O.D. 5 gauge, RS40 galvanized steel pipe with anti-wrap swings. All fabrication cuts, drill holes and weld joints shall be sprayed with a corrosion resistant coating.

E4.2.2 Legs

- (a) All legs shall be fabricated from 2 3/8" O.D. 10 gauge, RS40 galvanized steel pipe. All fabrication cuts, drill holes and weld joints shall be sprayed with a corrosion resistant coating. The bottom end of the posts is to be sealed with a moisture barrier.

E4.2.3 Yoke Clamps

- (a) All yoke clamps shall be either one piece construction and fabricated from 8 gauge, RS40 galvanized steel pipe or two piece, compression clamping cast aluminum or galvanized metal complete with tamper-proof hardware.

E4.2.4 Swing Hangers

- (a) All swing hangers shall be fabricated from galvanized malleable iron and have oil impregnated bearings pressed in.

E4.2.5 Swing Chain

- (a) All swing chain shall be 4/0 straight link, galvanized steel.

E4.2.6 Enclosed Baby (Bucket) Seats

- (a) All enclosed baby seats shall be moulded of U.V. stabilized, high quality, rubber with a tempered stainless steel reinforcement plate insert moulded inside, rendering the seats slashproof. Baby seats shall be fully enclosed to prevent slipping out and provide extra lower back support.

E4.2.7 Belt Seats

- (a) All belt seats shall be moulded of U.V. stabilized, high quality, rubber with a tempered stainless steel reinforcement plate insert moulded inside, rendering the seats slashproof. The perimeter shall be moulded to form a blunt, impact absorbing edge.

E4.2.8 Hardware

- (a) All fasteners shall be tamper proof in design, requiring special tools. The fasteners shall be either carbon steel plated with zinc/nickel and iridescent chromate finish or stainless steel.

E4.2.9 Concrete Foundations

- (a) Post shall be installed into a concrete footing the composition of which is detailed in E5.

E4.3 Installation

E4.3.1 Installation shall be in accordance with Manufacturers specifications.

E4.3.2 Top rail is to be level and posts securing anchored in concrete.

E4.3.3 Swing seats shall not be installed until the protective surfacing (in accordance with E8) has been installed

E4.4 Method of Measurement and Basis of Payment

E4.4.1 Method of Measurement shall be as follows:

- (a) Swing Standard will be measured on a per unit basis for:
 - (i) Item 6: "Supply and Install New 1-Bay Swing (2 baby seats) on Form B: Prices.
 - (ii) Item 7: "Supply and Install New 2-Bay Swing (4 belt seats) on Form B: Prices.

E4.4.2 Basis of Payment shall be as follows:

- (a) Swing Standard 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.

E5. FOUNDATIONS

E5.1 General Description

E5.1.1 All playground equipment posts, bases and anchors are to be set in concrete footings or piles to ensure stability and prevent frost heaving. An alternative to concrete footings or piles that may be approved includes a welded and secured rail mounting system. 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.

E5.2 Materials

E5.2.1 The specific concrete requirements shall be:

- (a) Sulfate resistant, Type 50 Cement;
- (b) 28 day compressive strength of 30 Mpa;
- (c) maximum aggregate size of 20mm, nominal;

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

E5.3 Installation

- E5.3.1 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 2" concrete at any point around the post.
- E5.3.2 All concrete footings for play equipment shall be a minimum of 3' depth, or in accordance with Manufacturer's specifications, whichever is greater.

E5.4 Method of Measurement and Basis of Payment

- E5.4.1 Method of Measurement shall be as follows:
 - (a) Foundations shall be incidental to the measurement of Play Equipment listed above and as shown on Form B: Prices.
- E5.4.2 Basis of Payment shall be as follows:
 - (a) No separate payment shall be made for play equipment foundations.

E6. MAINTENANCE KITS

- E6.1 All play equipment shall include the supply of maintenance kits. Maintenance kits shall include maintenance manuals, complete manufacturer's parts lists, touch-up paint, PVC repair paint, 10% extra of each bolt, washer and any other hardware utilized on the play equipment, and all special tools necessary for assembly and maintenance.
- E6.2 There shall be no payment for the maintenance kits.

E7. TIMBER EDGING

E7.1 General Description

- E7.1.1 The Contractor shall furnish all labour, materials, equipment and services necessary to complete the Work according to the drawings and specifications.
- E7.1.2 This specification shall cover the supply and installation of 2-tier timber edging to contain the wood fibre safety surfacing as per Drawing SCD 651F and Drawing SCD-651-b and as shown on Drawing 1-L2. The Work will involve a 2 tier timber edging fastened to the existing chain link fence, where the play equipment or swings abut the existing chain link fencing, and the balance of the timber will be located in open areas.
- E7.1.3 The timber edging around the swings shall be butted tight to the east property line existing chain link fencing. The timber edging for other play equipment areas which also abut the perimeter chain link fence are also to be placed tight to the chain link fence. All other timber edging located in the interior of the Site is shown conceptually only and the Contractor may provide their own shape and layout for the timber edging. The City cautions that it does not want narrow strips of sod between the proposed timber edge and adjacent fencing or paved areas.

E7.2 Materials and Method

- E7.2.1 Cap shall be Composite and solid such as Trex or substitute in accordance with B6, and shall not be treated. Colour of capping shall be natural grey or light tan colour. Top edges of all exposed timbers shall have an 8mm (45°) chamfer. Where any attached drawings refer to Pedra Capping, substitute the member with solid composite material. The composite cap shall be pre-drilled and screwed with two parallel screws at each end of the timber and at 600mm O.C. Tops of holes shall be tapered if required to allow for countersinking of all screw heads. All screws for securing cap to the pressure treated timber below shall be stainless steel, min. 50 mm lengths. Screw heads shall be

countersunk the minimum necessary so as not to protrude above the cap, but not so deep as to hold water.

E7.2.2 All wood for the bottom rows shall be pressure treated spruce, pine or fir, No. 2 or better, no wane, bark, checking or splitting permitted. Wood shall be smooth and free of rough areas. All timbers to be 150 x 150mm with full length timbers used whenever possible, and a minimum length of 1200mm. All ends and cuts shall be treated with preservative before being secured.

E7.2.3 Edging material shall be cut neatly for a proper fit with no spaces or gaps between. Finished elevations shall ensure that all edging material is smooth, level, set plumb and spaced uniformly.

E7.2.4 Turf shall be repaired as required around edging in accordance with City of Winnipeg Standard Specifications for Topsoil and Sodding.

E7.3 Method of Measurement and Basis of Payment

E7.3.1 Method of Measurement shall be as follows:

(a) Edging will be measured on a linear metre basis for:

- (i) Item 8: "Supply and install new 2-Tier Timber Edging c/w composite cap (SCD-65 1f)"; on Form B: Prices
- (ii) Item 9: "Supply and install new 2-Tier Timber Edging to Fence (SCD-65 1b) on Form B: Prices.

(b) **The Bidder must indicate for Item # 8 and #9 on Form B: Prices the required quantity of units, dependant on the submission.**

E7.3.2 Basis of Payment shall be as follows:

(a) Timber edging will be paid for on a per lineal metre basis 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.

E8. PROTECTIVE SURFACING AND SUB-SURFACE DRAINAGE

E8.1 General Description

E8.2 This specification shall cover the supply and install of wood fibre safety surfacing and associated sub-surface drainage.

E8.3 Wood Fibre Surfacing

E8.3.1 Description

- (a) This specification shall cover the supply and installation of Wood Fibre Surfacing within the Play Equipment Area(s).
- (b) This specification shall cover the supply and installation of Wood Fibre Surfacing to drain externally as per Drawing SCD 650a.

E8.3.2 Materials

(a) Wood Fibre product shall be either Zeager Woodcarpet or Fibar FibarSystem 200 or 300 products or substitute in accordance with B6.

- (i) Contact for Woodcarpet:
Zeagar Bros. Inc.
4000 East Harrisburg Pike ·
Middletown, PA 17057
USA

Ph: (1-888) 346-8524 or (717) 944-7481 ·
Fax (717) 944-7681
sales@zeager.com

(ii) Contact for FibarSystem 200 or 300:

The Fibar Group LLC
80 Business Park Drive, Suite 300
Armonk, NY 10504-1705
USA
Ph: (800) 342-2721
Fax: (914) 273-8659
info@FibarPlaygrounds.com

- (b) Wood Fibre surfacing shall include wood fibre, filter cloth, subsurface drainage system and mats under swings and ends of slides.

E8.3.3 Construction Methods

- (a) Wood Fibre shall be installed within the play areas, as defined by the timber edging to a minimum depth of 200 mm (after compaction). In the case where proposed play equipment includes a maximum fall height greater than 2.4m (8'), depth of material to directly correspond to maximum fall height of play equipment in accordance with manufacturer's specifications.
- (b) The installation of the Wood Fibre shall be done immediately after the play equipment has been installed.
- (c) Installation of entire system, including fibre, filter cloth, subsurface drainage and mats under swings and slide ends shall be done according manufacturer's instructions. Adequate drainage within play equipment area must be ensured as per same.
- (d) Subsurface of play area shall be graded to drain to one edge of the play area in direction where the 100 mm drainage pipe of Multi-Flow pipe will be located. The drainage pipe from the play equipment area shall be extended to drain to the existing shallow ditch located on the Railway Lands to the east of the Site, and as per drawing detail 650a. The cost for the underground drainage line and surface repairs shall be included in the price for the wood fibre supply and installation.
- (e) Installation shall be done by equipment sized to suit the Work being done and the Wood Fibre shall be spread by hand as necessary in the immediate vicinity of the play equipment so as not to damage same. The play equipment shall be swept clean to the satisfaction of the Contract Administrator after installation of the Wood Fibre.

E8.4 Method of Measurement and Basis of Payment

E8.4.1 Method of Measurement shall be as follows:

- (a) Protective Surfacing will be measured on a square metre basis for:
- (i) Item 10: "Supply and Install New Engineered Wood Fibre Safety Surfacing, including Underground Drainage System" on Form B: Prices.
- (b) **The Bidder must indicate for Item # 4 on Form B: Prices the required quantity of units, dependant on the submission.**

E8.4.2 Basis of Payment shall be as follows:

- (a) Protective Surfacing 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.

E8.5 Sub-Surface Drainage

E8.5.1 Description

- (a) This Work shall consist of providing and placing a geo-composite prefabricated drain system as required in the design submission and as described on the drawings and herein. Drainage system shall be installed in accordance with these specifications and in close conformity with the locations and dimensions as shown on the plans or specified by the Contract Administrator. The quantities of drain as shown 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.

E8.5.2 Material

- (a) Drainage pipe shall be Multi-Flow, or 100 mm perforated pvc pipe or approved substitute in accordance with B6. If Multi-Flow pipe use 150 mm (6") wide strips. The manufacturer will size and approve all fittings for use with Multi-Flow or approved substitute drainage pipe.
- (b) The drain conduit shall be of flexible, prefabricated, rounded rectangular shaped, composite product. The drain conduit will be wrapped with a non-woven geotextile and will be a non-woven needle-punched construction and consist of long-chain polymeric fibres composed of polypropylene, polyethylene or polyamide. The fibres will 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 will be free of any chemical treatment or coating, which reduces permeability and will be inert to chemical commonly found in soil. The geotextile will 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

- (c) 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.

(b)

Thickness, inches	ASTM D-1777	1.0
Flow Rate, gpm/ft*	ASTM D-4716	29
Compressive Strength, psf	ASTM D-1621 (modified sand method)	6000
Pipe Stiffness, pii	ASTM D-2412	100

* At gradient = 0.1, pressure = 10 psi for 100 hours.

(a) Fittings

- (i) 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. Cleanouts will be provided as indicated on the drawing.

E8.5.3 Backfill for Trenches

- (i) Backfill will be coarse sand whose particle size is defined as less than 5% retained on a # 10 screen and less than 5% passing through a # 30 (US Std Sieve) In no case will more than 1% pass a # 60 screen.

E8.5.4 Methods

- (a) The layout of the sub-drain is to be marked on Site and approved by the Contract Administrator and shall conform with drawing detail 1-L3 prior to trenching/excavating. Trenches shall be a min. 150mm in width. The trenches are to be installed to drain the water to the shallow ditch east of the east property line, on the Railway lands.
- (b) Sub-drain is to be laid on the prepared surface to facilitate cross movement of water. Sub-drain shall be installed below geotextile and in conformance with details provided. The sub-drain shall be sloped working from the low end of the side by the concrete City lane and sloping upwards towards the play area.
- (c) Contractor is to protect sub-drain from excessive weight during the duration of construction and to repair and make good any pipe collapsed prior to acceptance.
- (d) Fittings for the drain will be installed in accordance with the manufacturer's recommendations and Specification.
- (e) Any damaged edge drain or outlet lateral will be replaced or repaired by splicing in an undamaged section of drain at the Contractor's expense. The repair must be in accordance with the manufacturer's specification and to the satisfaction of the Contract Administrator.
- (f) Outlet ends of drainage pipe shall have the geotextile fabric trimmed off flush with the drainage pipe to prevent vandals from pulling the pipe out of the ground.

E8.6 Method of Measurement and Basis of Payment

E8.6.1 Method of Measurement shall be as follows:

- (a) Sub-surface Drainage shall be incidental to the measurement of Wood Fibre Surfacing listed above and as shown on Form B: Prices.

E8.6.2 Basis of Payment shall be as follows:

- (a) No separate payment shall be made for Sub-surface Drainage.

E9. POURED RUBBER SAFETY SURFACING

E9.1 Description

E9.1.1 This Specification shall cover the supply and installation of Poured Rubber Safety Surfacing within the play area.

E9.1.2 This Specification shall cover the supply and installation of Poured Rubber Safety Surfacing to sheet drain as located on drawing 1-L2. Drain surface offsite towards the east property line.

E9.2 Materials

E9.2.1 Poured Rubber Safety Surfacing product shall be either Game Time GT Impax Poured Recycled Rubber Surfacing or Softline Pour In Place Safety Surface System or substitute acceptable to Contract Administrator.

(a) Contact for Game Time GT Impax Poured Recycled Rubber Surfacing

Crozier Agencies
 8-1865 Sargent Avenue
 Winnipeg, MB R3H 0E4
 Ph: (204) 774-6084
 Fax: (204) 774-6099

(b) Contact for Softline Pour In Place Safety Surface System

Softline Solutions
 455 Lucas Avenue
 Winnipeg, MB R3C 2E6
 Ph: (204) 942-4543
 Fax: (204) 633-3133

E9.2.2 Poured Rubber Safety Surfacing product shall consist of:

- (a) Primer and Binder:
 - (i) 100% polyurethane binding agent; and
 - (ii) MDI (methyl dephenyl isocyanate) binder.
- (b) Impact Course:
 - (i) SBR (styrene butadiene rubber); and
 - (ii) low density rubber base and binder.
- (c) Wear Course:
 - (i) 1-3mm ø EPDM (ethylene propylene diene monomer); and
 - (ii) pigmented synthetic rubber granules and binder

E9.2.3 Poured Rubber Safety Surfacing product properties:

- (a) ASTM D412: Tensile Strength – 60 PSI min.
- (b) ASTM D412: Elongation and break – 140% min.
- (c) ASTM D2859: Flammability – Pass
- (d) ASTM D204: Coefficient of friction; wet – 0.9 mi, dry – 1.0 min.
- (e) Water permeability 0.4 gal/ sq.yd/sec., min.

E9.2.4 Consumer product safety commission (CPSC) and ASTM 1292-99 fall height requirements based on total system thickness of impact course and wear course:

FALL HEIGHT	SYSTEM THICKNESS
1210mm (4')	38mm (1.5")
1829mm (6')	64mm (2.5")
2438mm (8')	83mm (3.5")
3048mm (10')	114mm (4.5")
3657mm (12')	140mm (5.5")
4267mm (14')	165mm (6.5")

E9.2.5 Provide colour sample for final approval 2 weeks prior to pouring rubber. Install 1x1m sample section of rubber to set standard of acceptance.

E9.3 Construction Method

E9.3.1 Obtain Contract Administrator approval of adjacent concrete edges prior to commencing rubber installation.

- (a) Play equipment shall be installed as per manufacturer's specifications and in accordance with the most recent Canadian Standards Association Standards.

E9.3.2 Installation of poured rubber safety surfacing shall be installed by a experienced, certified rubber installer that has completed at least 10 installations. Provide certification prior to commencing Work.

- E9.3.3 Install play equipment in rubber areas prior to commencing rubber installation.
- E9.3.4 Shape subgrade and ensure positive drainage towards street.
- E9.3.5 Coordinate with play equipment supplier to confirm all safety zones and play equipment fall height rubber depth requirements. Depth standards as indicated above.
- E9.3.6 Install base course per Specifications ensuring base course allows for the appropriate depth of rubber required under the play equipment.
- E9.3.7 Obtain Contract Administrator's approval of base and compaction test results prior to installing rubber safety surface.
- E9.3.8 Do not install rubber when overnight temperature will fall below 5° Celsius (40°F).
- E9.3.9 Install rubber base and wear course per manufacturer's written specifications to required depths for associated safety zones and to the profiles and connections indicated on the Detail 4/L-6.2.
- E9.3.10 Obtain Contract Administrator's approval of rubber installation. Repair any deficiencies noted immediately.
- E9.3.11 Conduct an impact attenuation test through a certified laboratory. Provide test results to confirm installed poured rubber safety surfacing meets the requirements of ASTM F-1292-99 and ASTM 1292-96. Rubber surfacing will not be accepted until test results are submitted and approved by the City of Winnipeg.
- E9.3.12 Provide a 5-year written warranty for poured rubber safety surfacing product, a 10-year written warranty for workmanship, independent laboratory test results and a material maintenance manual to the owner prior to final acceptance of the safety surface installation.

E9.4 Method of Measurement and Basis of Payment

E9.4.1 Method of Measurement shall be as follows:

- (a) Poured Rubber Safety Surfacing will be measured on a square metre basis for Item 4: "Supply and Install Poured Rubber Safety Surface for Age 2-5 Playstructure" on Form B: Prices.
- (b) **The Bidder must indicate for Item # 5 on Form B: Prices the required quantity of units, dependant on the submission.**

E9.4.2 Basis of Payment shall be as follows:

- (a) Poured Rubber Safety Surfacing 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.

E10. TOPSOIL AND SOD

E10.1 Description

- E10.1.1 This Specification shall amend and supplement the City of Winnipeg Specifications CW 3510-R9, CW 3520-R5 and CW 3540-R5. The Contractor shall install mineral sod and a minimum 75mm compacted thickness of topsoil, as required.

- E10.1.2 The Contractor shall install topsoil and sod to the minimum limit of sod restoration and grading shown on drawing detail 1-L1 and 1-L2. The Contractor is made aware the limit of sodding may be larger than the limits shown on the drawing depending on the Contractor's submission/layout.
- E10.1.3 The minimum limit of sod restoration and grading defines the outer limits of existing safety surfacing or poor or uneven grass. The limit may have to be increased if the Contractor provides a design whereby the new play equipment goes past the conceptual design limits shown on drawing detail 1-L2.
- E10.1.4 No allowance has been made for restoring sod along the access route to the Site. The Contractor shall restore any damage to the sod or paving as a result of their activities at no further cost to the City.
- E10.1.5 The Contractor shall ensure any sod installed immediately around the outer timber edge is sloped down to meet the existing grass at a maximum 4:1 slope. Where new sod meets existing sod, it is to be cut into the existing sod to meet flush with the existing sod.
- E10.1.6 All new sod shall be sloped to drain positively and shall not pond any water. Ensure any new sod is not sloped towards the existing wading pool. Contact the Contract Administrator where Site issues arise before installing the sod.
- E10.1.7 Thirty (30) day maintenance period on sod will commence at Total Performance and acceptance.
- E10.2 Method of Measurement and Basis of Payment
- E10.2.1 Method of Measurement shall be as follows:
- (a) Sodding will be measured on a square metre basis for:
 - (i) Item 11: "Supply and Install Soil and Sod" on Form B: Prices.
 - (b) **The Bidder must indicate for Item # 10 on Form B: Prices the required quantity of topsoil and sod, dependant on the submission.**
- E10.2.2 Basis of Payment shall be as follows:
- (a) Sodding will be paid for at the Contract Unit Prices. The amount to be paid for shall be the total area, 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.

E11. CONCRETE PAVING

E11.1 Description

- E11.1.1 This Specification shall amend and supplement the City of Winnipeg Specifications CW 3235- Renewal of Existing Miscellaneous Concrete Slabs. The Contractor shall install concrete paving as located on drawing 1-L3 and as per detail 2-L3.

E11.2 Materials

- E11.2.1 Base course layer granular material shall be 19 mm crushed limestone down.
- E11.2.2 Concrete shall be in accordance with CW .3235.

E11.3 Installation

- E11.3.1 Remove existing wood edging and gravel paving to a 225 mm depth.
- E11.3.2 Compact subgrade to 100% Standard Proctor Density.

- E11.3.3 Install a 100 mm depth of granular paving and compact to 100% Standard Proctor Density.
- E11.3.4 Install 300 mm long Re-bar dowels 100 mm into existing concrete paving, at mid slab location. Reinforce remaining area to be paved with re-bar spaced at 400 mm on centre both ways.
- E11.3.5 Install 125 mm thickness of concrete paving and trowel edges and smooth and finish surface to match existing.
- E11.4 Method of Measurement and Basis of Payment
- E11.4.1 Method of Measurement shall be as follows:
- (a) Concrete Paving will be measured on a square metre basis and shall include all costs for the removal of existing materials, new gravel paving, reinforcing steel and new concrete paving.
 - (i) Item 12: "Supply and install concrete paving " on Form B: Prices.
- E11.4.2 Basis of Payment shall be as follows:
- (a) Concrete paving will be paid for at the Contract Unit Prices. The amount to be paid for shall be the total area, as indicated on Form B: Prices. This price shall be full payment for supplying all labour, equipment and materials, and performing all operations herein described and all other items incidental to the Work and as accepted by the Contract Administrator.

E12. SITE FURNITURE

E12.1 Description

- E12.1.1 This specification shall cover the pick up and installation of new site furnishings: two (2) expanded metal waste receptacles; five (5) benches with backs; and two (2) benches without backs. Five (5) benches will be surface mounted and two (2) benches will be inground mount.
- E12.1.2 The Contractor shall furnish all labour, materials, equipment and services necessary to complete the Work as shown on Drawing 1-L2 and specified herein. Supply includes pick up at the City of Winnipeg. There will be no charge for the supply of the site furniture.

E12.2 Materials

- E12.2.1 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.
- E12.2.2 Site Furniture shall be:
- (a) Waste Receptacle – Expanded Metal Basket, as per SCD 116, Product #52501062GLV, or substitute approved in accordance with B6.
 - (b) Benches: Tache Composite Benches w/ Arms, Product # 52501085GLV or approved equal in accordance with B6. Two (2) benches to be inground mount, three (3) benches to be surface mount
 - (c) Benches: Tache Backless Composite Benches w/ Arms, with surface mount or approved equal in accordance with B6. Two (2) benches required.
 - (i) Contact for Waste Receptacles and 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

Tel: 204 986-5505
Email: ALennon@winnipeg.ca

E12.3 Construction Methods

- (a) All Work is to be located and installed in accordance with the Drawing 1-L2 or approved Contractor Site Plan, SCD-116, SCD-121A, SCD-121-C and following manufacturer's instructions, 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;
- (b) 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;
- (c) All furnishings and fixtures to be carefully handled so that no parts will be bent, broken or otherwise damaged. Hammering is prohibited;
- (d) Install as per manufacturer's instructions and the attached drawings. Surface mount benches are to be installed with 9 mm dia. x 75 mm long rustproof concrete anchors. After tightening the bolts bang the threads to deform the bolt threads to prevent removal.

E12.4 Method of Measurement and Basis of Payment

E12.4.1 Method of Measurement shall be as follows:

- (a) Site Furniture will be measured on a per unit basis for the following items:
 - (i) Item 13: "Install only metal waste receptacles" on Form B: Prices;
 - (ii) Item 14: "Install only Tache bench, inground mount" on Form B: Prices;
 - (iii) Item 15: "Install only Tache bench, surface mount" on Form B: Prices;

E12.4.2 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.

E13. SAND BOX CONSTRUCTION

E13.1 General Description

- E13.1.1 The Contractor shall furnish all labour, materials, equipment and services necessary to complete the Work according to the drawings and specifications.
- E13.1.2 This specification shall cover the supply and installation of timber materials necessary to create a sand box, also utilizing part of an existing timber pole wall for retaining the sand.
- E13.1.3 New timber wall section shall be constructed to the shape shown on drawing 1-L2 and to detail 3-L3.
- E13.1.4 There is a semi-circular timber pole wall and this wall shall be utilized to retain the sand for the balance of the sand box. One existing timber post has been damaged by fire and is to be replaced. In order to retain the new sand within the existing timber pole wall and the voids between the posts, a geotextile fabric is to be install from the sub-grade to the top of the sand finished grade elevation.

E13.2 Materials and Method

- E13.2.1 Cap shall be No: 2 or better Western Red Cedar, 38 mm x 84 mm, S4S, no wane, no bark. The top two edges are to be chamfered using an 8 mm round-over router bit, which is lighting sanded after routing. Screws for securing the cap shall be No:8 x 75 mm long stainless steel. Screw cap to wall timbers as per sand box notes sheet L3.
- E13.2.2 All wood for the bottom rows shall be No: 2 or better, S4S, 140 mm x 140 mm timbers. Wood shall be smooth and free of rough areas. All timbers are to be full length for each segment of wall and alternating end joints shall be staggered. Secure to grade and one another as per the sand box notes, sheet L3.
- E13.2.3 Pressure treated pole shall be ACQ treated and sized to match the existing post which is being replaced. Post is to be buried min. 600 mm below grade and top elevation is match existing. Backfill hole with compacted 6 mm limestone down. Secure post to post on each side with min. 4 – 300 mm spikes driven horizontally through the new post into the adjacent posts, 2 nails per adjacent post.
- E13.2.4 Geotextile fabric shall be Armtex 200 or substitute approved in accordance with B6. Install double layer of fabric from finished grade on outside of the sand box up to the top of the new finished sand elevation. Use one single sheet of fabric folded over at mid point to achieve a double layer. Folded edge shall be installed level with the top of the new finished sand elevation, and nailed to each alternate post with 39 mm long galvanized roofing nails countersunk.
- E13.2.5 Sand for sand box shall be clean sand box sand. Excavate existing sand below the new sand box to a350 mm depth below the new sand box finish grade elevation. Once geotextile fabric has been installed and the new timber walls constructed, install 350 mm depth of sand box sand and rake level.
- E13.3 Method of Measurement and Basis of Payment
- E13.3.1 Method of Measurement shall be as follows:
- (a) Sand box construction will be measured on lump sum basis for the following items:
 - (i) Item 16: "Sand box construction" on Form B: Prices
- E13.3.2 Basis of Payment shall be as follows:
- (a) Sand box construction will be paid for on a lump sum basis 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 for replacing one timber pole, constructing new timber walls, installing geotextile fabric and sand.