



THE CITY OF WINNIPEG

BID OPPORTUNITY

BID OPPORTUNITY NO. 736-2006

MCFADYEN PARK PLAYGROUND REDEVELOPMENT

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PART B - BIDDING PROCEDURES

B1. CONTRACT TITLE

B1.1 MCFADYEN PARK PLAYGROUND REDEVELOPMENT

B2. SUBMISSION DEADLINE

B2.1 The Submission Deadline is 12:00 noon Winnipeg time, August 29, 2007.

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

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

B3. SITE INVESTIGATION

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

B4. ENQUIRIES

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

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

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

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

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

B5. ADDENDA

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

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

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

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

B5.2.3 The Bidder shall acknowledge receipt of each addendum in Paragraph 8 of Form A: Bid. Failure to acknowledge receipt of an addendum may render a Bid non-responsive.

B6. SUBSTITUTES

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

B7. BID COMPONENTS

- B7.1 The Bid shall consist of the following components:
- (a) Form A: Bid;
 - (b) Form B: Prices;

- (c) Design Drawings (plan, perspective, and other submissions to illustrate the design intent);
 - (d) Component Description and/or graphic or catalogue reference.
- B7.2 Further to B7.1, the Bidder should include the written correspondence from the Contract Administrator approving a substitute in accordance with B6.
- B7.3 All components of the Bid shall be fully completed or provided, and submitted by the Bidder no later than the Submission Deadline, with all required entries made clearly and completely, to constitute a responsive Bid.
- B7.4 The Bid shall be submitted enclosed and sealed in an envelope clearly marked with the Bid Opportunity number and the Bidder's name and address.
- B7.4.1 Samples or other components of the Bid which cannot reasonably be enclosed in the envelope may be packaged separately, but shall be clearly marked with the Bid Opportunity number, the Bidder's name and address, and an indication that the contents are part of the Bidder's Bid.
- B7.5 Bidders are advised not to include any information/literature except as requested in accordance with B7.1.
- B7.6 Bidders are advised that inclusion of terms and conditions inconsistent with the Bid Opportunity document, including the General Conditions, may result in the Bid being determined to be non-responsive.
- B7.7 Bids submitted by facsimile transmission (fax) or internet electronic mail (e-mail) will not be accepted.
- B7.8 Bids shall be submitted to:
The City of Winnipeg
Corporate Finance Department
Materials Management Branch
185 King Street, Main Floor
Winnipeg MB R3B 1J1

B8. BID

- B8.1 The Bidder shall complete Form A: Bid, making all required entries.
- B8.2 Paragraph 2 of Form A: Bid shall be completed in accordance with the following requirements:
- (a) if the Bidder is a sole proprietor carrying on business in his own name, his name shall be inserted;
 - (b) if the Bidder is a partnership, the full name of the partnership shall be inserted;
 - (c) if the Bidder is a corporation, the full name of the corporation shall be inserted;
 - (d) if the Bidder is carrying on business under a name other than his own, the business name and the name of every partner or corporation who is the owner of such business name shall be inserted.
- B8.2.1 If a Bid is submitted jointly by two or more persons, each and all such persons shall identify themselves in accordance with B8.2.
- B8.3 In Paragraph 3 of Form A: Bid, the Bidder shall identify a contact person who is authorized to represent the Bidder for purposes of the Bid.
- B8.4 Paragraph 10 of Form A: Bid shall be signed in accordance with the following requirements:
- (a) if the Bidder is a sole proprietor carrying on business in his own name, it shall be signed by the Bidder;

- (b) if the Bidder is a partnership, it shall be signed by the partner or partners who have authority to sign for the partnership;
- (c) if the Bidder is a corporation, it shall be signed by its duly authorized officer or officers;
- (d) if the Bidder is carrying on business under a name other than his own, it shall be signed by the registered owner of the business name, or by the registered owner's authorized officials if the owner is a partnership or a corporation.

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

B8.4.2 All signatures should be witnessed, except where a corporate seal has been affixed.

B8.5 If a Bid is submitted jointly by two or more persons, the word "Bidder" shall mean each and all such persons, and the undertakings, covenants and obligations of such joint Bidders in the Bid and the Contract, when awarded, shall be both joint and several.

B9. PRICES

B9.1 The Bidder shall state a price in Canadian funds for each item of the Work identified on Form B: Prices.

B9.1.1 Notwithstanding C12.2.3(c), prices on Form B: Prices shall include the Manitoba Retail Sales Tax (MRST, also known as PST), but exclude GST.

B9.2 The quantities listed on Form B: Prices are to be considered approximate only. The City will use said quantities for the purpose of comparing Bids.

B9.3 The quantities for which payment will be made to the Contractor are to be determined by the Work actually performed and completed by the Contractor, to be measured as specified in the applicable Specifications.

B10. DESIGN DRAWINGS

B10.1 The Bidder should submit drawings which illustrate the proposed design and play equipment, such as plan, perspective, and any other submissions to illustrate the design intent. Additional drawings may be requested prior to award for more detailed evaluation.

B11. COMPONENT DESCRIPTION

B11.1 The Bidder shall submit component description and / or graphic or catalogue reference outlining specifications of play equipment components.

B12. QUALIFICATION

B12.1 The Bidder shall:

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

B12.2 The Bidder and any proposed Subcontractor (for the portion of the Work proposed to be subcontracted to them) shall:

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

- B12.3 The Bidder and/or any proposed Subcontractor (for the portion of the Work proposed to be subcontracted to them) shall:
- (a) have successfully carried out work similar in nature, scope and value to the Work; and
 - (b) be fully capable of performing the Work required to be in strict accordance with the terms and provisions of the Contract; and
 - (c) have a written workplace safety and health program if required pursuant to The Workplace Safety and Health Act (Manitoba);
- B12.4 The Bidder shall submit, within three (3) Business Days of a request by the Contract Administrator, proof satisfactory to the Contract Administrator of the qualifications of the Bidder and of any proposed Subcontractor.
- B12.5 The Bidder shall provide, on the request of the Contract Administrator, full access to any of the Bidder's equipment and facilities to confirm, to the Contract Administrator's satisfaction, that the Bidder's equipment and facilities are adequate to perform the Work.

B13. OPENING OF BIDS AND RELEASE OF INFORMATION

- B13.1 Bids will be opened publicly, after the Submission Deadline has elapsed, in the office of the Corporate Finance Department, Materials Management Branch, or in such other office as may be designated by the Manager of Materials.
- B13.1.1 Bidders or their representatives may attend.
- 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 Branch internet site at <http://www.winnipeg.ca/matmgt>.
- 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 Branch internet site 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 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 Bid after the Submission Deadline but before his 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 (pass/fail);
 - (b) qualifications of the Bidder and the Subcontractors, if any, pursuant to B10 (pass/fail);
 - (c) Total Bid Price;
 - (d) economic analysis of any approved alternative pursuant to B6.
- 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 Bid or in other information required to be submitted, that he 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.

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 Subject to B17.2, where an award of Contract is made by the City, the award shall be made to the responsible and qualified Bidder submitting the lowest responsive Bid.

B17.3.1 Following the award of contract, a Bidder will be provided with information related to the evaluation of his Bid upon written request to the Contract Administrator.

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 Branch internet site at <http://www.winnipeg.ca/matmgt>.
- C0.2 A reference in the Bid Opportunity to a section, clause or subclause with the prefix “**C**” designates a section, clause or subclause in the *General Conditions for Construction*.

PART D - SUPPLEMENTAL CONDITIONS

GENERAL

D1. GENERAL CONDITIONS

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

D2. SCOPE OF WORK

D2.1 The Work to be done under the Contract shall consist of:

- (a) Removing and disposing area for new play equipment;
- (b) Removing and disposing for new sod;
- (c) Installing the new play equipment;
- (d) Installing the new play stone and concrete curbing;
- (e) Installing the new benches and limestone bench base;
- (f) Installing the new asphalt path;
- (g) Installing woodchips under existing tree; and
- (h) Installing the new sod as required in accordance with the requirements attached.

D3. CONTRACT ADMINISTRATOR

D3.1 The Contract Administrator is:

Christina Harris
Urban Designer
City of Winnipeg
Parks, Riverbanks and Community Initiatives Branch
Planning and Land Use Division
Planning, Property and Development Department
15-30 Fort St.
Winnipeg. MB R3C 4X5

Telephone No. (204) 986-6419
Facsimile No. (204) 986-7524

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

D4. CONTRACTOR'S SUPERVISOR

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

D4.2 The designated supervisor shall remain on Site at all times during the Work and shall be authorized by the Contractor to make legally binding decisions on behalf of the Contractor.

D5. NOTICES

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

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

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

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

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

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

D6. PERMITS, NOTICES, LICENSE, CERTIFICATES, LAWS AND RULES

D6.1 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.

D6.2 Further to C6.11, the Contractor shall comply with all laws, ordinances, rules and regulations that would relate to the Work.

D6.3 Further to C23.2, all notices, consents, approvals, statements, authorizations, documents or other communications to the City shall be submitted to the Contract Administrator.

D6.4 Further to C6.26, all Work shall be performed in compliance with The Workplace Safety and Health Act (Manitoba).

D6.5 All Work shall be performed in compliance with The Workplace Safety and Health Fall Protection guidelines.

- (a) The Contractor and Subcontractors 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.

SUBMISSIONS

D7. AUTHORITY TO CARRY ON BUSINESS

D7.1 The Contractor shall be in good standing under The Corporations Act (Manitoba), or properly registered under The Business Names Registration Act (Manitoba), or otherwise properly registered, licensed or permitted by law to carry on business in Manitoba, or if the Contractor

does not carry on business in Manitoba, in the jurisdiction where the Contractor does carry on business, throughout the term of the Contract, and shall provide the Contract Administrator with evidence thereof upon request.

D8. 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 added as an additional insured, with a cross-liability clause, such liability policy to also contain contractual liability, unlicensed motor vehicle liability, non-owned automobile liability and products and completed operations, to remain in place at all times during the performance of the Work and throughout the warranty period;
- (b) automobile liability insurance for owned automobiles used for or in connection with the Work in the amount of at least two million dollars (\$2,000,000.00) at all times during the performance of the Work and until the date of Total Performance;

D8.2 Deductibles shall be borne by the Contractor.

D8.3 The Contractor shall provide the Contract Administrator with a certificate(s) of insurance, in a form satisfactory to the City Solicitor, at least two (2) Business Days prior to the commencement of any Work but in no event later than seven (7) Calendar Days from notification of the award of Contract by Purchase Order.

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

D9. SUBCONTRACTOR LIST

D9.1 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.

D10. DETAILED WORK SCHEDULE

D10.1 The Contractor shall provide the Contract Administrator with a detailed work schedule at least two (2) Business Days prior to the commencement of any Work on the Site but in no event later than the date specified in C4.1 for the return of the executed Contract.

D10.2 The detailed work schedule shall consist of the following dates:

- (a) start date;
- (b) excavation of holes for playstructure and swingset posts;
- (c) arrival of playstructure and swingset to Site;
- (d) concrete pouring for posts;
- (e) expected completion.

D10.3 Other milestone dates appropriate to this project should also be included to make the Contract Administrator aware of them.

SCHEDULE OF WORK

D11. COMMENCEMENT

D11.1 The Contractor shall not commence any Work until he is in receipt of a Purchase Order from the Award Authority authorizing the commencement of the Work.

- D11.2 The Contractor shall not commence any Work on the Site until:
- (a) the Contract Administrator has confirmed receipt and approval of:
 - (i) evidence of authority to carry on business specified in D7;
 - (ii) evidence of the workers compensation coverage specified in C6.15;
 - (iii) evidence of the insurance specified in D8;
 - (iv) the Subcontractor list specified in D9; and
 - (v) the detailed work schedule as specified in D10.
 - (b) the Contractor has attended a pre-construction meeting with the Contract Administrator, or the Contract Administrator has waived the requirement for a pre-construction meeting.
 - (c) the Contractor has provided a written schedule of work outlining dates and duties to be performed.

D11.3 The Contractor shall commence the Work on the Site within seven (7) Working Days of receipt of the Purchase Order.

D12. SUBSTANTIAL PERFORMANCE

D12.1 The Contractor shall achieve Substantial Performance within ten (10) consecutive Working Days of the commencement of the Work as specified in D11.

D12.2 When the Contractor considers the Work to be substantially performed, the Contractor shall arrange, attend and assist in the inspection of the Work with the Contract Administrator for purposes of verifying Substantial Performance. Any defects or deficiencies in the Work noted during that inspection shall be remedied by the Contractor at the earliest possible instance and the Contract Administrator notified so that the Work can be reinspected.

D12.3 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.

D13. TOTAL PERFORMANCE

D13.1 The Contractor shall achieve Total Performance within fifteen (15) consecutive Working Days of the commencement of the Work as specified in D11. An exception can be made to accommodate supply and installation of playstructures only if delivery of same cannot be made within the timeframe. The Contractor must get approval on proposed completion date for these items with the Contract Administrator.

D13.2 When the Contractor or the Contract Administrator considers the Work to be totally performed, the Contractor shall arrange, attend and assist in the inspection of the Work with the Contract Administrator for purposes of verifying Total Performance. Any defects or deficiencies in the Work noted during that inspection shall be remedied by the Contractor at the earliest possible instance and the Contract Administrator notified so that the Work can be reinspected.

D13.3 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.

D14. LIQUIDATED DAMAGES

D14.1 If the Contractor fails to achieve Substantial Performance in accordance with the Contract by the day fixed herein for Substantial Performance, the Contractor shall pay the City four hundred dollars (\$400) per Working Day for each and every Working Day following the day fixed herein for Substantial Performance during which such failure continues.

D14.2 The amount specified for liquidated damages in D14.1 is based on a genuine pre-estimate of the City's damages in the event that the Contractor does not achieve Substantial Performance by the day fixed herein for same.

D14.3 The City may reduce any payment to the Contractor by the amount of any liquidated damages assessed.

D15. EXISTING SERVICES AND UTILITIES

D15.1 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.

D16. ACCESS TO SITE

D16.1 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.

D16.2 The Contractor's operations shall be limited to the minimum area necessary for undertaking the Work and he shall be responsible for all damage resulting from his Work on private property.

D17. DAMAGE TO EXISTING STRUCTURES, TREES AND PROPERTY

D17.1 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.

D17.2 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 protected 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.

D17.3 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.

D17.4 No separate measurement or payment will be made for the protection of trees.

CONTROL OF WORK

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).

WARRANTY

D19. WARRANTY

D19.1 Notwithstanding C13.2, the warranty period shall begin on the date of Total Performance and shall expire two (2) years thereafter unless extended pursuant to C13.2.1 or C13.2.2, in which case it shall expire when provided for thereunder.

D19.2 Notwithstanding C13.2 or D19.1, the Contract Administrator may permit the warranty period for a portion or portions of the Work to begin prior to the date of Total Performance if:

- (a) a portion of the Work cannot be completed because of unseasonable weather or other conditions reasonably beyond the control of the Contractor but that portion does not prevent the balance of the Work from being put to its intended use; or
- (b) In such case, the date specified by the Contract Administrator for the warranty period to begin shall be substituted for the date specified in C13.2 for the warranty period to begin.

D20. SITE RESTORATION

D20.1 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.

PART E - SPECIFICATIONS

GENERAL

E1. APPLICABLE SPECIFICATIONS, STANDARD DETAILS AND DRAWINGS

- E1.1 *The City of Winnipeg Standard Construction Specifications* in its entirety, whether or not specifically listed on Form B: Prices, shall apply to the Work.
- E1.1.1 *The City of Winnipeg Standard Construction Specifications* is available on the Information Connection page at The City of Winnipeg, Corporate Finance, Materials Management Branch internet site at <http://www.winnipeg.ca/matmgt>.
- E1.1.2 The version in effect three (3) Business Days before the Submission Deadline shall apply.
- E1.1.3 Further to C2.4(d), Specifications included in the Bid Opportunity shall govern over *The City of Winnipeg Standard Construction Specifications*.
- E1.2 The following Drawings are applicable to the Work:

<u>Drawing No.</u>	<u>Drawing Name/Title</u>
M.9-E	McFADYEN PARK - Existing Site Conditions & Removals
M.9-F	McFADYEN PARK - Proposed Site Development
M.9-G	McFADYEN PARK - Details
SCD-120A	TACHE BENCH - COMPOSITE
SCD-121A	COMPOSITE TACHE BACKLESS BENCH

- E1.2.1 Above Drawings are available on request in AutoCAD .dwg format or Vectorworks format from the Contract Administrator.

Play Equipment

E2. GENERAL COMMENTS

- E2.1 This specification shall cover the supply and installation of a playstructure, one (1) swing set, and one (1) spring rider specified herein.
- E2.2 The Contractor shall furnish all labour, materials, equipment and services necessary to complete the Work according to the drawings and specifications.
- E2.3 The Contractor shall obtain all approvals including the requisite Development Permit.
- E2.4 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.
- E2.5 Components which are unacceptable are the following:
- Wooden structures;
 - Tube (enclosed) slides and crawl tubes;
 - Play panels with many small moving parts;
 - Track rides and Glide rides;
 - Merry-go-rounds;
 - Tire Swings;
 - Talk tubes;

- (h) Binoculars / telescopes;
- (i) Poly roofs; and
- (j) Barrel rollers.

E3. PLAYSTRUCTURE

E3.1 General Description

- E3.1.1 This specification shall cover the supply and installation of one (1) Playstructure as specified herein.
- E3.1.2 Play equipment shall be installed in the play area as shown on the attached Drawing M.9-F. The play equipment and their safety zones must fit into the proposed play areas as shown on Drawing M.9-F.
- E3.1.3 The Playstructure as shown is for demonstration purposes only. See specific requirements in E3.2.8.
- E3.1.4 Related Specifications: E6 – Foundations.

E3.2 Materials

E3.2.1 Posts / Caps

- (a) All posts shall be a minimum 5" O.D. round or 4" square tubing.
- (b) 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'.
- (c) 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.
- (d) 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).
- (e) 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.

E3.2.2 Decks

- (a) All decks shall be manufactured from vinyl-coated perforated steel or a steel core composite. Deck shapes and configurations shall be as shown on Drawing M.9-F, or approved equal in accordance with B6. Deck heights may vary to a maximum height of 5'. The deck height increments may range from a minimum of 6" to a maximum of 12".

E3.2.3 Clamping System

- (a) 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.

E3.2.4 Handrails, Safety Rails and Handloops

- (a) All handrails, safety rails and handloops shall be fabricated using a minimum of 15/16" (24mm) O.D. with a .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.
- (b) 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.

- E3.2.5 Hardware
- (a) 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.
 - (b) All necessary hardware shall be provided.
- E3.2.6 Poly Components
- (a) Poly components such as slides and hoods shall be fabricated from U.V. stabilized, rotationally molded linear low-density polyethylene.
 - (b) Poly components such as play panels shall be fabricated from compression molded solid colour, U.V. stabilized, high-density polyethylene.
- E3.2.7 Slides
- (a) Stainless steel is preferred for slide beds, with north or east orientation.
- E3.2.8 Play Components
- (a) The following play components shall be included with the Playstructure (sample structure plan has been included on Drawing M.9-F for information only):
 - (i) three (3) platforms at different levels (minimum);
 - (ii) one (1) Horizontal Overhead Ladder, circular fixed rung preferred;
 - (iii) one (1) Climbing Access, bridging device or inclined climber;
 - (iv) one (1) Double Slide, Stainless Steel preferred with north or east face orientation;
 - (v) one (1) Easy Access Step Ladder or Access Stairs;
 - (vi) one (1) Activity Panel such as Tic Tac Toe Panel, deck mounted or free standing;
 - (vii) any additional item(s) to increase play value will be considered.
- E3.2.9 Playstructure(s) shall have kick plates and hand loops as required to meet the most recent Canadian Standards Association Standards.
- E3.3 Installation
- E3.3.1 Play equipment shall be installed as per manufacturer's specifications and in accordance with the most recent Canadian Standards Association Standards.
- E3.3.2 All posts and other vertical items shall be plumb and true to vertical.
- E3.3.3 All decks shall be level.
- E3.3.4 Concrete footings/foundations shall be in accordance with E6.
- E3.4 Method of Measurement and Basis of Payment
- E3.4.1 Method of Measurement shall be as follows:
- (a) Playstructure will be measured on a per unit basis for: "Supply and install playstructure" on Form B: Prices.
- E3.4.2 Basis of Payment shall be as follows:
- (a) Playstructure 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.

E4. SWING STANDARD

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 This specification shall cover the supply and installation of a complete swing standard, as specified herein:
- (a) Three Leg Heavy Duty Swing Frame, 8ft. high, complete with two (2) slash-proof rubber enclosed infant seats, two (2) slash-proof belt seats, heavy-duty chain, swing hangers and "S" hooks / 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 with a baked-on polyester powdercoating. The powder coating finish 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 prior to powdercoating.
- E4.2.2 Legs
- (a) All legs shall be fabricated from 2 3/8" O.D. 10 gauge, RS40 galvanized steel pipe with a baked-on polyester powdercoating. The powder coating finish 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 prior to powdercoating. 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 Infant (Bucket) Seats
- (a) All enclosed infant 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. Infant 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 E6.

E4.3 Installation

E4.3.1 Installation shall be in accordance with Manufacturer's specifications.

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

- (a) Swing seats shall not be installed until the safety surfacing (in accordance with E10) 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: "Supply and install 8' (2.4m) 2 bay swingset, including 2 belt and 2 infant 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 Price. 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. SPRING RIDER

E5.1 General Description

E5.1.1 The Contractor shall furnish all labour, materials, equipment and services necessary to complete the Work according to the specifications.

E5.1.2 This specification shall cover the supply and installation of one (1) Spring Rider as specified herein.

E5.1.3 Enclosed Spring Riders will not be accepted.

E5.1.4 Spring Rider shall be installed in the available area as shown on Drawing M.9-F. The Spring Rider and its safety zone must fit into the proposed play area.

E5.2 Materials

E5.2.1 All materials shall be structurally sound and suitable for safe play. Durability shall be ensured on all parts and materials.

E5.2.2 There should be a minimum (or no) amount of hollow plastic components. Solid plastic is acceptable.

E5.2.3 Spring / Mount

- (a) The spring toys shall be mounted on a pinch-proof, "C" spring assembly. The "C" spring and mount shall be manufactured from a tempered alloy steel, galvanized and coated with a baked-on polyester powder coating. The powder coating finish 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 prior to powder coating.

E5.2.4 Fasteners

- (a) 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.

E5.2.5 Finishes

- (a) 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.

E5.3 Installation

E5.3.1 Installation shall be in accordance with Manufacturer's specifications.

E5.3.2 Concrete footings/foundations shall be in accordance with E6.

E5.4 Method of Measurement and Basis of Payment

E5.4.1 Method of Measurement shall be as follows:

- (a) Spring Rider will be measured on a per unit basis for: "Supply and install spring rider" on Form B: Prices.

E5.4.2 Basis of Payment shall be as follows:

- (a) Spring Rider 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.

E6. FOUNDATIONS

E6.1 General Description

E6.1.1 All playground equipment posts, bases and anchors are to be set in concrete footings or piles to ensure stability and prevent frost heaving. The current Standard Construction Specifications of the City of Winnipeg, CW 2160-R4 - Concrete to be used in Underground Works, is to be utilized in the installation of the concrete works for all below ground components.

E6.2 Materials

E6.2.1 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.

E6.3 Installation

E6.3.1 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.

E6.3.2 All concrete footings for playstructure shall be a minimum of 3' depth, or in accordance with Manufacturer's specifications, whichever is greater.

E6.4 Method of Measurement and Basis of Payment

E6.4.1 Method of Measurement shall be as follows:

- (a) Foundations shall be incidental to the measurement of Playstructure, Swingset, and Spring Rider listed above and as shown on Form B: Prices.

E6.4.2 Basis of Payment shall be as follows:

- (a) No separate payment shall be made for play equipment foundations.

E7. MAINTENANCE KITS

- E7.1 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.
- E7.2 There shall be no payment for the maintenance kits.

SITE DEVELOPMENT

E8. EXCAVATION AND DISPOSAL

E8.1 General Description

E8.1.1 This specification shall cover the excavation and legal disposal of existing surfacing to accommodate new surfacing materials and installations.

E8.1.2 Work shall include but not be limited to the following:

- (a) Excavate and dispose of all existing sand and turf to the limits shown on Drawings M.9-E and M.9-F, and to the depths necessary to achieve finish grade for:
 - (i) play areas: concrete edging and safety surfacing;
 - (ii) asphalt path;
 - (iii) limestone bench base; and
 - (iv) sod.
- (b) Remove and dispose any remaining sand surfacing to accommodate new sod and topsoil.

E8.2 Construction Methods

E8.2.1 Excavation and disposal includes the removal of items (i.e. sand and turf) 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. Do not disturb adjacent items designated to remain in place.

E8.2.2 All extraneous materials are to be removed from the Site and disposed of in a safe and legal manner. This specification shall amend and supplement City of Winnipeg Standard Construction Specifications CW 3110-R7. 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.

E8.2.3 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.

E8.2.4 No stockpiling of material on Site.

E8.2.5 Contractor must coordinate with the Contract Administrator to ensure all removals have occurred.

E8.2.6 Excavation should be coordinated with the installation of play equipment so as not to leave an open excavation area subject to ponding water.

E8.2.7 Excavate to the limits shown and as necessary to achieve finish grades:

- (a) Play areas:
 - (i) Concrete edging – in accordance with Concrete Edging Details on Drawing M.9-G and per E9;

- (ii) Safety Surfacing – to accommodate a minimum of 300mm playstone depth and in accordance with Concrete Edging Details on Drawing M.9-G and per E10;
- (b) Asphalt path – 275mm, in accordance with “Asphalt Path Detail” on Drawing M.9-G and per E12;
- (c) Limestone bench base – 150mm, in accordance with “Limestone Detail for Bench Base” on Drawing M.9-G and per E11;
- (d) Sod – 100mm, per E15.

E8.3 Method of Measurement and Basis of Payment

E8.3.1 Method of Measurement shall be as follows:

- (a) Excavation and Disposal shall be measured on a cubic metre basis for “Excavate and legally dispose for new play area and of existing sand areas for new sod” on Form B: Prices.
- (b) No measurement will be made for the Excavation and Disposal for the asphalt path as these items are incidental to E12.
- (c) No measurement will be made for the Excavation and Disposal for the limestone bench base as these items are incidental to E11.

E8.3.2 Basis of Payment shall be as follows:

- (a) Excavation and Disposal for new play area and of existing sand areas for new sod will be paid for at the Contract Unit Prices. The amount to be paid for shall be the total number of units, as indicated on Form B: Prices. This price shall be full payment for supplying all labour, equipment and materials, and performing all operations herein described and all other items incidental to the Work and as accepted by the Contract Administrator.
- (b) No payment will be made for the Excavation and Disposal for the asphalt path as this shall be incidental to E12.
- (c) No payment will be made for the Excavation and Disposal for the limestone bench base as this shall be incidental to E11.

E9. CONCRETE EDGING

E9.1 General Description

- E9.1.1 The Contractor shall furnish all labour, materials, equipment and services necessary to complete the Work according to the drawings and specifications.
- E9.1.2 This specification shall cover the supply and installation of Concrete Edging to contain the safety surfacing for the playground area.

E9.2 Materials and Method

- E9.2.1 Layout shall be as approved, to adequately provide safety surfacing area based on the most recent CSA safety zone requirements.
- E9.2.2 Cement: Type 50
 - (a) Maximum Course Aggregate: 20mm
 - (b) Minimum Compression Strength at 28 days: +35 Mpa
 - (c) Minimum Cement Content: 310 kg/cu.m
 - (d) Maximum Water Cement Ratio: 0.45
 - (e) Class of Exposure: C-2
 - (f) Maximum Slump: 90mm +/- 20mm
 - (g) Air Entrainment: 5 to 8%

(h) Flyash Content: Max. 15% of Cementitious Material

- E9.2.3 Fine aggregate shall consist of natural sand or manufactured sand and shall conform to all requirements of CAN3.A23.1.
- E9.2.4 Course aggregate shall consist of hard, strong, uncoated durable particles of crushed stone, gravel or approved combination thereof and shall be free from an excess of thin, elongated or soft pieces, frozen lumps, organic matter or other deleterious matter, and shall conform with all the requirements of CAN3.A23.1. Maximum size of aggregate shall be 20mm.
- E9.2.5 Water for concrete shall be clean and free from injurious amounts of oil, acid, alkali, salts, silt, organic matter or other deleterious matter. The quality of the water shall be equal to or better than that of potable water.
- E9.2.6 A non-detergent type of air-entraining admixture, supplied in liquid form, shall be metered into the mix. The total air in the placed concrete shall be 5% - 8%.
- E9.2.7 Reinforcing steel shall be grade 300 deformed bars or as noted on the drawings. Detailing of reinforcing steel shall be in accordance with ACI 315. All bars which require bending shall be bent in shops.
- E9.2.8 All reinforcing steel shall be straight, clean and free from paint, oil, mill scale, excess rust and any injurious defects which may affect its strength or bond.
- E9.2.9 Ends of reinforcing steel intended for bonding that are to be left exposed for some time shall be protected from injury, oils or moisture.
- E9.2.10 Curing compound shall be Sternson Ritcure or approved equal in accordance with B6.
- E9.2.11 Bonding agent shall be Sternson ST 431 Epoxy Bonding Agent.
- E9.2.12 Form coating shall be Sternson's Formseal or approved equal in accordance with B6.
- E9.2.13 The City of Winnipeg may engage a fully qualified Inspecting Engineer and Testing Laboratory to:
- (a) Inspect the pile excavations to determine that they have been augured to the specified depth, are of the specified size, are clean and level, and meet the design criteria.
 - (b) Take test cylinders during concrete placing and carry out compression tests to determine whether concrete produced complies with these specifications.
 - (c) Take compaction tests of compacted granular sub-base and sub-grade material.
 - (d) Submit reports to the Contract Administrator of all materials, concrete, and caisson tests and inspections.
 - (e) Three concrete test cylinders to be taken for pile cast. One cylinder from each group shall be tested at 7 days, one at 14 days, and the remainder at 28 days. Sampling and testing procedures shall be according to CAN3-A23.1 latest edition.
- E9.2.14 Concrete Edging shall be laid out as per Drawing M.9-F and as per Contract Administrator. It shall be installed as per Drawing M.9-G.
- E9.2.15 Finished elevations shall ensure that all concrete is smooth and level. Turf shall be repaired as required around edging in accordance with City of Winnipeg Standard Specifications for Topsoil and Sodding.
- E9.2.16 The layout of the concrete edging shall be coordinated with the installation of the play equipment to ensure that the proper safety zones are created around the equipment.
- E9.2.17 The Contractor shall set the elevation of the top of the concrete edge which shall be inspected and approved by the Contract Administrator prior to concrete installation.
- E9.3 Method and Measurement of Payment
- E9.3.1 Measurement

- (a) Concrete Edging will be measured on a unit price basis per linear metre for: "Supply and install concrete edging" on Form B: Prices.

E9.3.2 Payment

- (a) Concrete Edging will be paid for at the Contract Unit Prices for Supply and Install Concrete Edging. 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. SAFETY SURFACING

E10.1 Description

- E10.1.1 This specification shall cover the supply and installation of Safety Surfacing within the play equipment area as per Drawing M.9-F.

E10.2 Materials

- E10.2.1 Safety Surfacing shall be 6.0mm Playground Stone, composition shall be Typical Birds Hill glacial till material, 100% clean river-washed granite.

100% passing 10mm
45% passing 5mm
Up to 10% passing 2.5mm
Up to 4% passing 1.25mm
0% passing 0.8mm sieve

E10.3 Construction Methods

- E10.3.1 Playground Stone shall be installed within the play area, as defined by the concrete edging, to a minimum depth of 300 mm and a minimum 75mm below top of concrete edging, see Concrete Edging Details on Drawing M.9-G.
- E10.3.2 Care shall be taken not to mix soil or clay into Safety Surfacing.
- E10.3.3 The installation of the Safety Stone shall be done immediately after the play equipment has been installed.
- E10.3.4 Installation shall be done by equipment sized to suit the Work being done and the Playground Stone shall be spread by hand as necessary in the immediate vicinity of the playstructure so as not to damage same. The playstructure shall be swept clean to the satisfaction of the Contract Administrator after installation of the Stone.

E10.4 Method of Measurement and Basis of Payment

- E10.4.1 Method of Measurement shall be as follows:

- (a) Safety Surfacing shall be measured on a cubic metre basis for "Supply and install safety surfacing, 300mm depth" on Form B: Prices.

- E10.4.2 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.

E11. LIMESTONE BENCH BASE

E11.1 Description

E11.1.1 This Specification shall amend and supplement the City of Winnipeg Specification CW 3110-R7. The Work to be done by the Contractor under this Specification shall cover all phases of supply and placement of crushed limestone surfacing materials necessary to install a Limestone Bench Base for one new backless bench as shown on Drawing M.9-F.

E11.2 Materials

E11.2.1 Limestone Bench Base shall consist of a 100 mm base coarse depth of 19 mm diameter crushed limestone down, with a 50 mm depth of 6 mm diameter crushed limestone capping, see "Limestone Detail for Bench Base" on Drawing M.9-G.

E11.3 Construction Method

E11.3.1 The Contractor shall survey and stake out bench base area prior to the start of construction as shown on the construction drawings. Layout of bench base shall be checked and confirmed with Contract Administrator prior to construction.

E11.3.2 All granular base coarse shall be placed and compacted to the finished thickness as specified on the drawings.

E11.3.3 Base Coarse and Capping Course shall be compacted to a minimum of Hundred (100%) of Standard Proctor Density.

E11.4 Method and Measurement of Payment

E11.4.1 Method of Measurement shall be as follows:

- (a) Limestone Bench Base shall be measured on a square metre basis for: "Supply and install limestone bench base, including excavation" on Form B: Prices.

E11.4.2 Basis of Payment shall be as follows:

- (a) Limestone Bench Base shall be paid for at the Contract Unit Prices. The amount to be paid for shall be the total number of units, as indicated on Form B: Prices. This price shall be full payment for 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. ASPHALT PATH

E12.1 Excavation

E12.1.1 Description

- (a) This specification shall be done in accordance the City of Winnipeg's Standard Construction Specification CW 3110-R7 – "Sub-Grade, Sub-Base and Base Course Construction" and as per Drawings M.9-F and M.9-G.
- (b) Excavation shall be understood to include all removal of existing insitu material to a depth of 275 mm (11") as shown on the drawings.

E12.1.2 Construction Methods

- (a) Excavation shall be performed as outlined in CW 3310 –R7 – item 3.2 – "Excavation".
- (b) The existing pavement at the limits of the designated area of removal shall be saw cut for the full depth of the pavement prior to the demolition and removal operations. All costs in connection with saw cutting are incidental and shall be included in the unit price bid for excavation.
- (c) All excavated material shall be removed, hauled and disposed of off-site to the satisfaction of the Contract Administrator.

E12.2 Sub-Grade Compaction

E12.2.1 Description

- (a) Sub grade compaction shall be done in accordance with City of Winnipeg's Standard Construction Specification CW 3110-R7 - "Sub-Grade, Sub-Base and Base Course Construction".

E12.2.2 Construction Methods

- (a) Sub-grade compaction shall be performed as outlined in CW 3110 – R7 – item 3.3 – "Preparation of Sub-Grade and Placement of Sub-Base material.
- (b) Sub-grade shall be free of any fibrous organics, softened and disturbed soil. The prepared sub-grade shall be proof rolled with a heavy sheep's foot roller (min 25 passes) and inspected by the Contract Administrator to detect for any soft spots prior to the placement of overlying granular fills.

E12.3 Crushed limestone sub-base course material

E12.3.1 Description

- (a) Crushed limestone sub-base material shall be supplied and installed in accordance with City of Winnipeg's Standard Construction Specification CW 3110-R7 - "Sub-Grade, Sub-Base and Base Course Construction".

E12.3.2 Materials

- (a) Crushed Limestone sub-base material shall be 50 mm (2") as specified and to the depth of 150 mm (6") as shown on the drawings.

E12.3.3 Construction Methods

- (a) Crushed limestone sub-base material shall be supplied and installed as outlined in CW 3110 –R7 – item 3.4 "Placement of Sub-Base Material with Geotextile Fabric".
- (b) All limestone sub-base material shall be placed and compacted as specified to a finished thickness as shown on the drawings.

E12.4 Crushed Limestone Base Course Material

E12.4.1 Description

- (a) Crushed limestone base material shall be supplied and installed in accordance with City of Winnipeg's Standard Construction Specification CW 3110-R7 - "Sub-Grade, Sub-Base and Base Course Construction".

E12.4.2 Materials

- (a) Crushed Limestone base coarse material shall be 20 mm (3/4") as specified and to the depth of 50 mm (2") as shown on the drawings.

E12.4.3 Construction Methods

- (a) Crushed limestone base coarse material shall be supplied and installed as outlined in CW 3110 –R7 – item 3.5 "Placement of Base Course Material ".
- (b) All limestone base coarse shall be placed and compacted as specified to a finished thickness as shown on the drawings.

E12.5 Asphaltic Pavement

E12.5.1 Description

- (a) Asphaltic Concrete shall be supplied and installed in accordance with City of Winnipeg Standard Construction Specification CW 3410-R5 – "Asphaltic Concrete Pavement Works".

E12.5.2 Materials

- (a) Asphaltic Concrete shall be Type 1A as specified and to a thickness of 75 mm (3") as shown on the drawings.

E12.5.3 Construction Methods

- (a) Asphaltic Concrete shall be supplied and installed in accordance with the lines, grades and thickness shown on the Construction Drawings and to City of Winnipeg Standard Construction Specification CW 3410-R5. Asphalt shall be placed in one lift.

E12.6 Crack Sealing

- (a) As a warranty requirement, the Contractor shall rout and seal any and all cracks which may appear during the one-year warranty period. Crack sealing shall conform to the requirements of City of Winnipeg Standard Construction CW 3250 – R3.
- (b) No separate payment will be made for this item as it is considered a warranty issue and shall fall under D19 – Warranty.

E12.7 Quality Control for Hard Surfaced Areas

- (a) Further to Section 10, Quality Control, of CW 3110-R5 and CW 3410-R5, the Contract Administrator may obtain a qualified independent testing lab to conduct tests on materials to determine the acceptability of the sub-grade, sub-base, base course and asphaltic concrete as placed by the Contractor in accordance with the requirements of this Specification.
- (b) The Contractor shall not proceed with each granular fill placement or asphalt installation until test results have been reviewed and the approval to proceed is granted by the Contract Administrator.
- (c) The Contract Administrator will conduct a survey of the operation to verify installation of specified layer thickness.
- (d) Non-conformity with the specified test requirements or compacted layer thickness will constitute sufficient grounds for rejection of the work.

E12.8 Method of Measurement and Basis of Payment

E12.8.1 Method of Measurement shall be as follows:

- (a) Asphalt Path will be measured on a square metre basis for: "Supply and install asphalt path, including excavation" on Form B: Prices.
- (b) Excavation and base work shall be incidental to the measurement of Asphalt Path listed above and as shown on Form B: Prices.

E12.8.2 Basis of Payment shall be as follows:

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

E13. BENCHES

E13.1 Description

- E13.1.1 This specification shall cover the supply and installation of one (1) Tache Bench and one (1) Tache Backless Bench. The Contractor shall furnish all labour, materials, equipment and services necessary to complete the Work as shown on Drawing M.9-F and specified herein. Supply includes pick up and payment from source identified below.

E13.2 Materials

- E13.2.1 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.

E13.2.2 Benches shall be:

- (a) "Tache Bench-Composite" as per SCD-120A, Product #52501067, or substitute in accordance with B6; and

- (b) "Composite Tache Backless Bench" as per SCD-121A, Product # 52510169, or substitute accordance with B6.

E13.2.3 Contact for both Benches:

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

E13.3 Construction Methods

- E13.3.1 Benches to be installed with limestone bench base as specified in E11.
- E13.3.2 All benches to be located in accordance with Drawing M.9-F. The Contractor shall confirm proposed locations with the Contract Administrator prior to installation.
- E13.3.3 Benches to be installed in accordance with SCD-120A and SCD-121A.
- E13.3.4 Ensure furnishings and fixtures are installed plumb and true to correct elevation.
- E13.3.5 All furnishings and fixtures to be carefully handled so that no parts will be bent, broken or otherwise damaged. Hammering, which will injure or distort fixture, is prohibited.

E13.4 Method of Measurement and Basis of Payment

E13.4.1 Method of Measurement shall be as follows:

- (a) Benches will be measured on a per unit basis for the following items:
 - (i) "Supply and install Tache bench";
 - (ii) "Supply and install Tache backless bench" on Form B: Prices.
- (b) No measurement will be made for the limestone bench base as this shall be incidental to E11.

E13.4.2 Basis of Payment shall be as follows:

- (a) Benches will be paid for at the Contract Unit Prices. The amount to be paid for shall be the total number of units, as indicated on Form B: Prices. This price shall be full payment for supplying all labour, equipment and materials, and performing all operations herein described and all other items incidental to the Work and as accepted by the Contract Administrator.
- (b) No payment will be made for limestone bench base as this shall be incidental to E11.

E14. WOODCHIP MULCH

E14.1 Description

- E14.1.1 This specification shall cover the supply and installation of Woodchip Mulch to be placed around the existing tree, as shown on Drawing M.9-F.

E14.2 Materials

- (a) Mulch shall be a clean bark or wood chip mulch with chips not less than 15 mm nor larger than 75 mm in size and not less than 100 mm thick. Mulch shall be free of leaves, branches and other extraneous matter.

E14.3 Construction Methods

E14.3.1 Installation

- (a) Place Woodchip Mulch around the existing tree, as shown on Drawing M.9-F, to a minimum width of 1m diameter and to a minimum depth of 100mm.

E14.4 Method of Measurement and Basis of Payment

E14.4.1 Method of Measurement shall be as follows:

- (i) Woodchip mulch shall be measured on a per square metre basis for "Supply and install woodchips, 100mm depth" on Form B: Prices.

E14.4.2 Basis of Payment shall be as follows:

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

E15. TOPSOIL AND SODDING

E15.1 Description

E15.1.1 This Specification shall amend and supplement the City of Winnipeg Specifications CW 3510-R8, and CW 3540-R4. The Contractor shall install mineral sod and a minimum 75mm compacted thickness of topsoil, as required.

E15.1.2 Play equipment perimeter: The Contractor shall install topsoil and sod around the perimeter of newly cribbed areas to clean up turf disturbed by the Work. Sod and topsoil shall be installed as shown on Drawing M.9-F a distance of a maximum of 500mm from the concrete edging as per detail on Drawing M.9-G.

E15.1.3 Existing sand areas: The Contractor shall install topsoil and sod in areas where excavated sand extended beyond the new play area, as shown on Drawing M.9-F.

E15.1.4 Damaged areas: Restoration of damaged areas other than as outlined above shall be incidental to the Work. No separate payment shall be made. Restoration shall be achieved using sod and topsoil unless otherwise directed by the Contract Administrator.

E15.2 Method of Measurement and Basis of Payment

E15.2.1 Method of Measurement shall be as follows:

- (a) Topsoil and Sodding will be paid for on a square metre basis for: "Supply and install topsoil and sod" on Form B: Prices.

E15.2.2 Basis of Payment shall be as follows:

- (a) Topsoil and Sodding 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.