



THE CITY OF WINNIPEG

BID OPPORTUNITY

BID OPPORTUNITY NO. 145-2006

REDEVELOPMENT OF THE PLAYGROUND AT ST. VITAL PARK

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PART B - BIDDING PROCEDURES

B1. PROJECT TITLE

B1.1 REDEVELOPMENT OF THE PLAYGROUND AT ST. VITAL PARK

B2. SUBMISSION DEADLINE

B2.1 The Submission Deadline is 12:00 noon Winnipeg time, April 12, 2006.

B2.2 Bid Submissions 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 GC:3.1, 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 shortly before submitting his Bid.

B5.3 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 shall base his Total Bid Price upon the specified item but may also indicate an alternative price based upon the approved alternative. Such alternatives will be evaluated in accordance with B14.

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

B7. BID SUBMISSION

B7.1 The Bid Submission consists of the following components:

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

B7.2 The Bid Submission shall be submitted enclosed and sealed in an envelope clearly marked with the Bid Opportunity number and the Bidder's name and address.

B7.2.1 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.

B7.3 Bid Submissions submitted by facsimile transmission (fax) or internet electronic mail (e-mail) will not be accepted.

B7.4 Bid Submissions 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 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 Submission 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 GC.12.2.3(c), prices on Form B: Prices shall include the Manitoba Retail Sales Tax (MRST, also known as PST).

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.

B9.4 Unit Prices on Form B: Prices for Items No. 20 **and** 21, will be deleted from the Total Bid Price if the lowest evaluated responsive bid exceeds the budgetary provision until a Total Bid Price within the budgetary provision is achieved.

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;
- (b) be responsible and not be suspended, debarred or in default of any obligation to the City;
- (c) be financially capable of carrying out the terms of the Contract;
- (d) have all the necessary experience, capital, organization, and equipment to perform the Work in strict accordance with the terms and provisions of the Contract;
- (e) have successfully carried out work, similar in nature, scope and value to the Work;
- (f) employ only Subcontractors who:
 - (i) are responsible and not suspended, debarred or in default of any obligation 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>); and
 - (ii) have successfully carried out work similar in nature, scope and value to the portion of the Work proposed to be subcontracted to them, and are fully capable of performing the Work required to be done in accordance with the terms of the Contract;
- (g) have a written workplace safety and health program in accordance with The Workplace Safety and Health Act (Manitoba).

B10.2 The Bidder shall be prepared to 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.

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

B11. OPENING OF BIDS AND RELEASE OF INFORMATION

B11.1 Bid Submissions will be opened publicly, after the Submission Deadline has elapsed, in the office of the Corporate Finance Department, Materials Management Branch, or in such other office as may be designated by the Manager of Materials.

B11.1.1 Bidders or their representatives may attend.

B11.2 After the public opening, the names of the Bidders and their Total Bid Prices as read out (unevaluated, and pending review and verification of conformance with requirements) will be available on the Closed Bid Opportunities (or Public/Posted Opening & Award Results) page at The City of Winnipeg, Corporate Finance, Materials Management Branch internet site at <http://www.winnipeg.ca/matmgt>.

B11.3 After award of Contract, the name(s) of the successful Bidder(s) and the Contract Amount(s) will be available on the Closed Bid Opportunities (or Public/Posted Opening & Award Results) page at The City of Winnipeg, Corporate Finance, Materials Management Branch internet site at <http://www.winnipeg.ca/matmgt>.

B11.4 The Bidder is advised that any information contained in any Bid Submission may be released if required by City policy or procedures, by The Freedom of Information and Protection of Privacy Act (Manitoba), by other authorities having jurisdiction, or by law.

B12. IRREVOCABLE BID

B12.1 The Bid(s) submitted by the Bidder shall be irrevocable for the time period specified in Paragraph 9 of Form A: Bid.

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

B13. WITHDRAWAL OF BIDS

B13.1 A Bidder may withdraw his Bid without penalty by giving written notice to the Manager of Materials at any time prior to the Submission Deadline.

B13.1.1 Notwithstanding GC:23.3, the time and date of receipt of any notice withdrawing a Bid shall be the time and date of receipt as determined by the Manager of Materials.

B13.1.2 The City will assume that any one of the contact persons named in Paragraph 3 of Form A: Bid or the Bidder's authorized representatives named in Paragraph 10 of Form A: Bid, and only such person, has authority to give notice of withdrawal.

B13.1.3 If a Bidder gives notice of withdrawal prior to the Submission Deadline, the Manager of Materials shall:

- (a) retain the Bid Submission until after the Submission Deadline has elapsed;

- (b) open the Bid Submission to identify the contact person named in Paragraph 3 of Form A: Bid and the Bidder's authorized representatives named in Paragraph 10 of Form A: Bid; and
- (c) if the notice has been given by any one of the persons specified in B13.1.3(b), declare the Bid withdrawn.

B13.2 A Bidder who withdraws his Bid after the Submission Deadline but before his Bid has been released or has lapsed as provided for in B12.2 shall be liable for such damages as are imposed upon the Bidder by law and subject to such sanctions as the Chief Administrative Officer considers appropriate in the circumstances. The City, in such event, shall be entitled to all rights and remedies available to it at law.

B14. EVALUATION OF BIDS

B14.1 Award of the Contract shall be based on the following bid evaluation criteria:

- (a) compliance by the Bidder with the requirements of the Bid Opportunity (pass/fail);
- (b) qualifications of the Bidder and the Subcontractors, if any, pursuant to B10 (pass/fail);
- (c) Total Bid Price;
- (d) economic analysis of any approved alternative pursuant to B6.

B14.2 Further to B14.1(a), the Award Authority may reject a Bid as being non-responsive if the Bid Submission 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 if the interests of the City so require.

B14.3 Further to B14.1(b), the Award Authority shall reject any Bid submitted by a Bidder who does not demonstrate, in his Bid Submission or in other information required to be submitted, that he is responsible and qualified.

B14.4 Further to B14.1(c), the Total Bid Price shall be the sum of the quantities multiplied by the unit prices for each item shown on Form B: Prices and will be adjusted, if necessary, as follows:

- (a) if the lowest evaluated responsive Bid submitted by a responsible and qualified Bidder is within the budgetary provision for the Work, no adjustment will be made to the Total Bid Price or;
- (b) if the lowest evaluated responsive Bid submitted by a responsible and qualified Bidder exceeds the budgetary provision for the Work, the Total Bid Price of all responsive Bids submitted by responsible and qualified Bidders will be adjusted by deducting the following items, until a Total Bid Price within the budgetary provision is achieved:
 - (i) Item 20 – 4 Pods **and** Item 21 – Playstructure – “Treehouse”.

B15. AWARD OF CONTRACT

B15.1 The City will give notice of the award of the Contract or will give notice that no award will be made.

B15.2 The City will have no obligation to award a Contract to a Bidder, even though one or all of the Bidders are determined to be responsible and qualified, and the Bids are determined to be responsive.

B15.2.1 Without limiting the generality of B15.2, the City will have no obligation to award a Contract where:

- (a) the prices exceed the available City funds for the Work;

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

- B15.3 Where an award of Contract is made by the City, the award shall be made to the responsible and qualified Bidder submitting the lowest evaluated responsive Bid.
- B15.4 Notwithstanding GC:4, the City will issue a Purchase Order to the successful Bidder in lieu of the execution of a Contract.
- B15.5 The Contract, as defined in GC:1.1, 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

C1. GENERAL CONDITIONS

C1.1 The *General Conditions for Construction Contracts* (Revision 2000 11 09) are applicable to the Work of the Contract.

C1.1.1 The *General Conditions for Construction Contracts* 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>.

PART D - SUPPLEMENTAL CONDITIONS

GENERAL

D1. GENERAL CONDITIONS

- D1.1 In addition to the *General Conditions for Construction Contracts*, these Supplemental Conditions are applicable to the Work of the Contract.
- D1.2 The General Conditions are amended by striking out "The City of Winnipeg Act" wherever it appears in the General Conditions and substituting "The City of Winnipeg Charter".
- D1.3 The General Conditions are amended by striking out "Tender Package" wherever it appears in the General Conditions and substituting "Bid Opportunity".
- D1.4 The General Conditions are amended by striking out "Tender Submission" wherever it appears in the General Conditions and substituting "Bid Submission".
- D1.5 The General Conditions are amended by deleting GC:6.16 and GC:6.17. The City of Winnipeg is now within the jurisdiction of the Manitoba Ombudsman pursuant to The Ombudsman Act.

D2. SCOPE OF WORK

- D2.1 The Work to be done under the Contract shall consist of the redevelopment of the playground at St. Vital Park including the supply and installation of play equipment.

D3. CONTRACT ADMINISTRATOR

- D3.1 The Contract Administrator is David Wagner Associates Inc., represented by:
David Wagner
Landscape Architect
4 – 430 River Avenue
Winnipeg, Manitoba
R3L 0C6
Telephone No. (204) 452-2426
E-mail. dwagner@dwla.ca
- D3.2 At the pre-construction meeting, David Wagner will identify additional personnel representing the Contract Administrator and their respective roles and responsibilities for the Work.

D4. CONTRACTOR'S SUPERVISOR

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

D5. NOTICES

- D5.1 Except as provided for in GC:23.2.2, 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 attention of the Chief Financial Officer at the following address or facsimile number:
The City of Winnipeg
Chief Administrative Officer Secretariat
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
185 King Street, 3rd Floor
Winnipeg MB R3B 1J1
Facsimile No.: (204) 947-9155

SUBMISSIONS

D6. INSURANCE

- D6.1 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) all inclusive, with The City of Winnipeg and David Wagner Associates Inc. being added as an additional insured, with a cross-liability clause, such liability policy to also contain a contractual liability, an unlicensed motor vehicle liability and a products and completed operations endorsement to remain in place at all times during the performance of the Work and throughout the warranty period;
 - (b) automobile liability insurance for owned and non-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;
- D6.2 Deductibles shall be borne by the Contractor.
- D6.3 The Contractor shall provide the City Solicitor with a certificate of insurance of each policy, in a form satisfactory to the City Solicitor, 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.
- D6.4 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.

D7. PERFORMANCE SECURITY

- D7.1 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.
- D7.1.1 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.
- D7.2 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.

D8. SUBCONTRACTOR LIST

- D8.1 The Contractor shall provide the Contract Administrator with a complete list of the Subcontractors whom the Contractor proposes to engage (Form J: Subcontractor List) at least two (2) Business Days prior to the commencement of any Work on the Site but in no event later than seven (7) Calendar Days from notification of the award of Contract.

SCHEDULE OF WORK

D9. COMMENCEMENT

- D9.1 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.
- D9.2 The Contractor shall not commence any Work on the Site until:
- (a) the Contract Administrator has confirmed receipt and approval of:
 - (i) evidence that the Contractor is 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;
 - (ii) evidence of the workers compensation coverage specified in GC:6.14;
 - (iii) evidence of the insurance specified in D6;
 - (iv) the performance security specified in D7;
 - (v) the Subcontractor list specified in D8;
 - (vi) the name of the Contractor's Supervisor specified in D4; and,
 - (vii) the Work Schedule showing completion dates for major stages of the Project such as arrival of play equipment and site furniture, completion of foundations, concrete work and asphalt.

- (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 submitted to the Contract Administrator order confirmation and delivery dates for all key items, as identified at the pre-construction meeting, including but not limited to the play equipment, site furniture, and safety stone.

D10. SUBSTANTIAL PERFORMANCE

- D10.1 The Contractor shall achieve Substantial Performance by September 1, 2006.
- D10.2 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.
- D10.3 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.

D11. TOTAL PERFORMANCE

- D11.1 The Contractor shall achieve Total Performance by September 15, 2006.
- D11.2 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.
- D11.3 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.

D12. LIQUIDATED DAMAGES

- D12.1 If the Contractor fails to achieve Total Performance in accordance with the Contract by the day fixed herein for Total Performance, the Contractor shall pay the City one thousand dollars (\$1000) per Calendar Day for each and every Calendar Day following the day fixed herein for Total Performance during which such failure continues.
- D12.2 The amount specified for liquidated damages in D12.1 is based on a genuine pre-estimate of the City's losses in the event that the Contractor does not achieve Total Performance by the day fixed herein for same.
- D12.3 The City may reduce any payment to the Contractor by the amount of any liquidated damages assessed.

D13. SCHEDULED MAINTENANCE

- D13.1 The Contractor shall perform the following scheduled maintenance in the manner and within the time periods required by the Specifications:
 - (a) Sod maintenance as specified in E13.

- D13.2 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

D14. JOB MEETINGS

- D14.1 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.
- D14.2 The Contract Administrator reserves the right to cancel any job meeting or call additional job meetings whenever he deems it necessary.

D15. PRIME CONTRACTOR – THE WORKPLACE SAFETY AND HEALTH ACT (MANITOBA)

- D15.1 Further to GC:6.26, 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

D16. WARRANTY

- D16.1 Notwithstanding GC:13.2, the warranty period shall begin on the date of Total Performance and shall expire one (1) year thereafter unless extended pursuant to GC:13.2.1 or GC:13.2.2, in which case it shall expire when provided for thereunder.
- D16.2 Notwithstanding GC:13.2 or D16.1, 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.
- D16.2.1 In such case, the date specified by the Contract Administrator for the warranty period to begin shall be substituted for the date specified in GC:13.2 for the warranty period to begin.
- D16.3 Notwithstanding CG13.3, the Manufacturer's warranties on play equipment and site furnishings shall apply.

SITE WORK

D17. SITE ACCESS

- D17.1 Access to the Site will be determined at the pre-construction meeting. This access area shall be maintained and restored by the Contractor at his own expense and approved by the Contract Administrator.

D17.2 The Contractor shall be restricted to the Site access location and route only so that there is a minimum of disturbance to the existing ground surface. Damage to areas beyond the marked route shall be repaired by and at the expense of the Contractor to the satisfaction of the Contract Administrator.

D18. PERMITS, NOTICES, LICENSES, CERTIFICATES, LAWS AND RULES

D18.1 Further to GC: 6.12, 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.

D18.2 The Contractor shall comply with all laws, ordinances, rules and regulations that would relate to the Work.

D18.3 All notices, consents, approvals, statements, authorizations, documents or other communications to the City shall be submitted to the Contract Administrator.

D18.4 All Work shall be performed in compliance with the Manitoba Workplace Health and Safety Act.

D18.5 All Work shall be performed in compliance with the Manitoba Workplace Health and Safety Fall Protection guidelines.

D18.6 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.

D19. DAMAGE TO EXISTING STRUCTURES AND PROPERTY AND SERVICES AND UTILITIES

D19.1 Further to GC: 17, 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 thereto in the performance of the Work, the Contractor shall upon instructions from and to the satisfaction of the Contract Administrator and the owners thereof, either replace and repair such damage, whichever may be deemed necessary in the opinion of, and acceptable to, the Contract Administrator and the owners thereof. The cost of which shall be borne entirely by the Contractor. The Contractor shall also indemnify and save harmless the City and David Wagner Associates Inc. from all claims made directly or indirectly against it in respect to any such damage.

D19.2 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. 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.

D19.3 Existing Services and Utilities

No responsibility will be assumed by the Owner for correctness or completeness of the Drawings, when provided, with respect to the existing utilities, pipes or other objects either underground or on the surface; the Owner 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.

D20. PROTECTION OF EXISTING TREES

- D20.1 The Contractor shall take the following precautionary steps to prevent damage from construction activities to existing trees within the limits of the construction area:
- (a) Trees greater than 100 mm diameter or trees identified to be at risk by the Contract Administrator are to be strapped with 25x100x2440 mm wood planks, or other suitable protection as approved by the Contract Administrator. Do not use nails or other fasteners that penetrate the tree trunk. The width and length of strapping may be reduced to suit the tree being protected as approved by the Contract Administrator.
 - (b) 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) where 1 inch diameter equals 1 foot measured from the outside edge of the trunk of the tree at 6 inches above grade. Where roots must be cut to facilitate excavation, they shall be pruned neatly at the face of excavation.
 - (c) Equipment shall not be operated within the drip line without written permission from the Contract Administrator. 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 entire ground surface located directly beneath the tree and radiating out to the tips of its outermost branches. The Contractor shall ensure that the operations do not cause flooding or sediment deposition on areas where trees are located.
 - (d) Repair, replace and maintain tree protection materials during construction until the Project completion.
 - (e) Carefully remove safety fencing and strapping material without harming the trees as soon as the construction and restoration Work is complete.
- D20.2 Obtain approval from the Contract Administrator to excavate within 2.0 M of a tree.
- D20.3 Excavate in a manner to minimize damage to the tree root systems. Keep exposed roots in excavations and trenches moist or shaded. If stockpiling of excavated soil material is required, stockpile in areas away from the tree roots if possible.
- D20.4 Prune exposed roots with equipment such as trencher, chain saws, root cutters or other methods acceptable to the Contract Administrator in a manner that will leave a neat, clean root end.
- D20.5 Take precautions to ensure tree limbs overhanging the Work area are not damaged by construction equipment. Contact the Forestry Branch for consultation or pruning of overhanging or damaged limbs and branches and other unanticipated problems with trees during the construction of the Works.
- D20.6 The City of Winnipeg Naturalist Branch, also has authority for Natural stands of forested/brush/native grass areas, and may also instruct the Contractor on protective measures to protect the riverbank vegetation.
- D20.7 Further to the Naturalist requirements the Contractor must set up a temporary orange safety fence to define the agreed upon Work area to ensure that additional damage does not occur to adjacent vegetation. Damage to vegetation and established trees beyond the defined Work will result in additional charges based on the Forestry Branch assessment of the tree valuation.

D20.8 All damage or pruning required to existing trees caused by the Contractor's activities shall be repaired to the requirements and satisfaction of the Contract Administrator and the Forestry Branch. Damages must be repaired by an Individual with a Manitoba Arborist Licence or by the Forestry Branch.

D20.9 Protection of existing trees, repair of trees and pruning of damaged limbs will not be measured for payment and is to be included with the Underground or Surface Works. Removal and replacement of existing trees by the Forestry Branch deemed to have died or that are dying due to damage from carelessness during construction, will be at the Contractor's cost. The Contractor will be invoiced for the cost, or have the cost deducted from any payments owing

D21. TEMPORARY UTILITIES

D21.1 Further to GC: 6.12, the Contractor shall make his own arrangements in connection with the temporary use of lighting, power, gas, sewer, water or other utilities, and pay all costs in connection therewith.

D21.2 All necessary permits, fees and other like expenses as well as the cost of temporary connections to existing facilities shall be arranged and paid for by the Contractor.

FORM H1: PERFORMANCE BOND
(See D7)

KNOW ALL MEN BY THESE PRESENTS THAT

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

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

_____ dollars (\$_____)

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

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

_____ day of _____, 20____, for:

BID OPPORTUNITY NO. 145-2006

REDEVELOPMENT OF THE PLAYGROUND AT ST. VITAL PARK

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

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

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

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

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

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

_____ day of _____, 20____.

SIGNED AND SEALED
in the presence of:

(Witness)

(Name of Principal)

Per: _____ (Seal)

Per: _____

(Name of Surety)

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

**FORM H2: IRREVOCABLE STANDBY LETTER OF CREDIT
(PERFORMANCE SECURITY)**
(See D7)

(Date)

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

RE: PERFORMANCE SECURITY - BID OPPORTUNITY NO. 145-2006
REDEVELOPMENT OF THE PLAYGROUND AT ST. VITAL PARK

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, 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 GC:2.4(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>
L1	Site Survey
L2	Existing Conditions and Removals Plan
L3	Development Plan
L4	Layout Plan
L5	Castle Play Area and Details
L6	Theme Concept Drawings
148640A	ST VITAL PARK - ROYAL CARRIAGE
6503-1-1	ST VITAL PARK – CASTLE STRUCTURE
4640	St. Vital Park - Treehouse
SCD-121	TACHE BACKLESS BENCH

E2. SITE ENCLOSURES

- E2.1 Temporary Site enclosures, as determined necessary at the pre-construction meeting, shall be erected and maintained as required for the duration of the construction period.
- E2.2 Site enclosures shall be considered incidental to the Contract Work.

E3. LAYOUT

- E3.1 The Contractor is responsible for the layout of all Work. The Contractor is to coordinate the layout of all play spaces with the play equipment supplier to ensure that CSA requirements are met.
- E3.2 The Contract Administrator shall be advised of the staking of the layout at least twenty-four (24) hours in advance in order that the layout may be inspected and adjusted as required prior to construction.

E4. CANADIAN STANDARDS ASSOCIATION GUIDELINES

- E4.1 All playground equipment supplied and the method of installation shall be in accordance with the latest edition of the "National Standard of Canada, CAN/CSA-Z614-03".

E5. MAINTENANCE KITS

- E5.1 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.

WORKS

E6. REMOVALS AND SITE PREPARATION

E6.1 General Description

- (a) This specification shall cover the removal of items such as play equipment and concrete culverts; and, the relocation of rocks, as specified on the Drawings.

E6.2 Removals

- (a) Play equipment and culverts are to be removed including any bases or foundations in their entirety. All play equipment is to be removed and legally disposed of; and, under no circumstances, is any of it to be sold or reused. Removals are to be scheduled such that no partial or unsafe structures are left unsecured.
- (b) All areas, where equipment has been removed, are to be restored to a clean, level and safe surface. The sand base from the removed play areas is to be used to cover the disturbed areas. Where the sand base is contaminated or not suitable for the intended use, it is to be removed from the Site.
- (c) The rocks from around the concrete culverts are to be salvaged and relocated on Site as directed by the Contract Administrator.
- (d) All removed materials are to be disposed of off Site in a safe and legal manner.

E6.3 Basis of Payment

- (a) Payment for Work specified under this section shall be paid for at the Unit Price, measured on a lump sum basis, for the Items of Work listed below, which price shall include all costs of removal, excavation and disposal.
- (b) Items of Work:
- (i) Removals and Site Preparation
 - (ii) Relocation of Rocks

E7. SITE GRADING / BERM

E7.1 General Description

- (a) Further to CW 3170-R3, this specification shall cover the Site grading required to construct the berm and ramp within the Castle Play Area. The Work shall be coordinated with the construction of the retaining walls, and the installation of the ramp/path and the railings.
- (b) The excavation and preparation of areas for the installation of sand, paving, wood chip mulch and sodding are considered incidental to those items of Work.

E7.2 Methods

- (a) The berm and ramp area shall be excavated and/or filled to achieve the rough grades to levels, profiles and contours allowing for surface treatment as indicated on Drawings.

- (b) The berm shall be constructed from clean compacted clay fill to the grades shown on the Drawings. Suitable materials excavated from the Site may be used to construct the berm. Work is to be coordinated with the construction of the retaining walls, the railing and the ramp/path.
- (c) In fill areas, the Contractor shall scarify the existing ground to a minimum depth of 150mm prior to the placement of any fill. Compaction shall include the use of sheep's foot or other suitable compaction equipment as approved by the Contract Administrator to achieve a minimum compaction of 95% Proctor Density.
- (d) Wherever the proposed Site grading is to meet existing Site grades, the grades are to match and positive Site drainage is to be maintained. The transition areas from slope to flat shall be eased to facilitate maintenance.
- (e) All surplus materials shall be disposed of as per Clause 9.3 of CW 3110.
- (f) Following rough grading and compaction, the Work area shall be fine graded. The finished surface of all disturbed areas shall be dragged smooth in such a manner that there are no loose soil particles greater than 25mm in maximum dimensions.

E7.3 Basis of Payment

- (a) Payment for Work specified under this section shall be paid for at the Unit Price, measured on a lump sum basis, for the Items of Work listed below, which price shall include all costs of costs of rough and fine grading for the berm and ramp construction.
- (b) Items of Work
 - (i) Site Grading / Berm

E8. RETAINING WALLS

E8.1 General Description

- (a) This specification shall cover the supply and installation of retaining walls as shown on the Drawings.

E8.2 Materials

- (a) Retaining Wall: Barkman Roman Pisa, colour Sierra Grey with Roman Coping, colour Charcoal.
- (b) Granular base: CW 3110-R9 for crushed limestone base course material and as per manufacturer's specifications.
- (c) GeoGrid: Barkman 35-70000 or as specified by the retaining wall manufacturer.
- (d) Adhesive: Snap Edge, Bond-Loc All Weather Landscape Products Adhesive or approved equal.

E8.3 Method

- (a) Wall layout and grading shall be subject to inspection by the Contract Administrator.
- (b) Retaining walls, base, geogrid and drainage system shall be installed as per Drawings and according to manufacturer's specifications.
- (c) Subgrade preparation shall conform to levels and compaction required to allow for installation of granular base. The base course is to be set below the sub-grade of the sand safety surfacing as shown on the Drawings.
- (d) Granular base shall be compacted to 95% standard Proctor Density.

- (e) Retaining walls shall be installed true to grade such that the top of the finished wall is level across its entire length. The wall is to step down in equal increments at the wall ends to follow the slope of the ramp/path. Wall courses are to end with a corner unit.
- (f) All courses shall be glued together with a double bead, minimum 6mm dia. bead of adhesive as the wall is being constructed, to the satisfaction of the Contract Administrator.
- (g) The Work shall be coordinated with the construction of the berm, and the installation of the ramp/path and the railings.

E8.4 Basis of Payment

- (a) Payment for Work specified under this section shall be paid for at the Unit Price, measured on a lump sum basis, for the Items of Work listed below, which price shall include all costs of material supply including the granular, sub-grade preparation, and proper material installation.
- (b) Items of Work
 - (i) Retaining Walls

E9. ASPHALT PAVING

E9.1 General Description

- (a) Further to CW 3110-R9 and CW3410-R7, this specification shall cover the supply and installation of the asphalt path / ramp, including excavation, sub-base and base construction, and asphaltic paving.

E9.2 Materials and method

- (a) Materials and installation as per CW 3110-R9 and CW3410-R7.
- (b) Sub-base and base materials and depths are as specified on the Drawings.
- (c) Asphaltic paving depth as specified on the Drawings.
- (d) Path widths are indicated on the Drawings.
- (e) The path / ramp must be constructed to the grades shown on the Drawings. This Work shall be coordinated with the construction of the retaining walls and the berm.
- (f) The Contract Administrator shall inspect the sub-base and retaining wall prior to the installation of asphalt.
- (g) The Contractor is to ensure that the retaining wall units remain clean and free of asphalt.

E9.3 Basis of Payment

- (a) Payment for Work, specified under this section shall be paid for at the Unit Price, measured the square meter, for the Items of Work listed below. The price for Asphaltic Paving shall include all costs of excavation, material supply and proper material installation for sub-grade, sub-base and base preparation, and asphaltic paving. Rough and final grading and Site restoration work shall be considered incidental to the Work.
- (b) Items of Work:
 - (i) Asphalt Paving

E10. GRANULAR PAVING

E10.1 General Description

- (a) Further to CW 3110-R9, this specification shall cover the supply and installation of granular paving including sub-grade preparation for the pads around the waste receptacles.

E10.2 Materials and Method

- (a) Granular Paving
 - (i) Sub-base: 100 mm depth of 50 mm down crushed limestone compacted in two layers over compacted sub-grade.
 - (ii) Base: 50 mm depth of 19 mm down crushed limestone, compacted.
 - (iii) Top: 25 mm of 6 mm down crushed limestone, compacted.
- (b) The granular pads around the waste receptacles shall be mounded up at each unit to provide a minimum of 2% grade away from each waste receptacle.

E10.3 Basis of Payment

- (a) Payment for Work specified under this section shall be paid for at the Unit Price, measured on a square metre basis, for the Items of Work listed below, which price shall include all costs of material supply, sub-grade preparation, and proper material installation.
- (b) Items of Work:
 - (i) Granular Paving

E11. WOOD CHIP PATH

E11.1 General Description

- (a) This specification shall cover the supply and installation of Wood Chip Path including sub-grade preparation.

E11.2 Materials and Method

- (a) Wood Chips: Clean local wood chip mulch, with chips not less than 15 mm or larger than 75 mm in length and not more than 20 mm thick. Mulch shall be free of leaves, branches and other extraneous matter.
- (b) The actual layout of Wood Chip Path shall be determined on Site and confirmed by the Contract Administrator.
- (c) The area to receive the wood chips is to be filled with clean fill so that it is no longer a low area. The path drainage is to work within existing drainage patterns. The fill material is to be compacted and fine graded.
- (d) The path area is to be topped with wood chip mulch to a depth of 100 mm.

E11.3 Basis of Payment

- (a) Payment for Work specified under this section shall be paid for at the Unit Price, measured on a square metre basis, for the Items of Work listed below, which price shall include all costs of material supply, sub-grade preparation, and proper material installation.
- (b) Items of Work:
 - (i) Wood Chip Path

E12. TOPSOIL AND FINISH GRADING

E12.1 General Description

- (a) Further to CW 3540-R4, this specification shall cover the supply and installation of topsoil for the establishment of turf.

E12.2 Materials

- (a) Topsoil: As per CW 3540-R4.

E12.3 Methods

- (a) The topsoil and finish grading shall be installed as per CW3540-R4 or as directed by the Contract Administrator.

E12.4 Basis of Payment

- (a) Payment for Work specified under this section shall be included with the price for sod.

E13. SODDING

E13.1 General Description

- (a) Further to CW 3510-R8, this specification shall cover the supply and installation of sod.

E13.2 Materials and Method

- (a) Sodding
 - (i) As per CW 3510-R8.
 - (ii) Sod shall be mineral base.

E13.3 Maintenance Period

- (a) The Contractor shall maintain the sod for 30 Calendar Days after the completion of the installation or until such a time as the turf is established in accordance with CW 3510-R8.

E13.4 Basis of Payment

- (a) Payment for Work specified under this section shall be paid for at the Unit Price, measured on a square metre basis, for the Items of Work listed below, which price shall include all costs of material supply, sub-grade preparation, proper material installation, maintenance and all other items incidental to the Work. Payment for Sodding shall be in accordance with the following:
 - (i) Seventy-five (75%) following supply and placement and issuance of Certificate of Substantial Performance by the Contract Administrator.
 - (ii) Twenty-five (25%) following termination of the maintenance period.
- (b) Items of Work
 - (i) Sodding

E14. SAFETY PLAY SURFACES

E14.1 General Description

- (a) This specification shall cover the supply and installation of sand for the play areas including excavation.

E14.2 Materials

- (a) Sand shall be clean Torpedo Sand.
- (b) Samples of the specified material shall be submitted for approval to the Contract Administrator at least seven (7) Calendar Days prior to ordering of the material. Refer to Clause D9.2(c).

E14.3 Method

- (a) Play areas to receive Sand are to be excavated to the depth required for correct depth of sand as shown on the Drawings.

- (b) Sand areas for existing swings are to be enlarged to meet CSA requirements as shown on the Drawings. Enlarged areas are to be excavated as required and the entire area topped up to meet required depths. Depth measurement shall be when the sand is spread level.
- (c) All surplus materials shall be disposed of as per Clause 9.3 of CW 3110.
- (d) Edges of the sand areas are to be cut in neatly.
- (e) The sub-base for the sand area in the Castle Play Area shall be excavated and levelled as required to meet grades shown on the Drawings. Where the surrounding turf is lower than the sand the Contractor shall crown the turf edge and sod that edge. Any mounding of the turf shall be smooth blended so as not to cause lawn mowers to scalp the turf.
- (f) Sand shall be installed within the play areas to a minimum depth of 300 mm except for the 'Royal Carriage' structure and spring toy areas which shall be a minimum of 250 mm, as shown on the Drawings.
- (g) The installation of the sand shall be done immediately after the play equipment has been installed.
- (h) Installation shall be done by equipment sized to suit the Work being done and the sand shall be spread by hand in the immediate vicinity of the play equipment so as not to damage the same.
- (i) The play equipment shall be swept clean as required after installation of the sand.

E14.4 Basis of Payment

- (a) Payment for Work specified under this section shall be paid for at the Unit Price, measured on a cubic metre basis, for the Items of Work listed below, which price shall include all costs of material supply, Excavation, sub-grade preparation, and proper material installation.
- (b) Items of Work
 - (i) Sand

E15. SITE FURNITURE

E15.1 General Description

- (a) This specification shall cover the supply and installation of Site furniture as shown on the Drawings.

E15.2 Materials and Method

- (a) Waste Receptacles
 - (i) Equinox Industries, ALFA Inground Waste Management Containers, Alfa Maxi.
 - (ii) Colour – Forest Green c/w brown plastic wood skirting.
 - (iii) Each unit shall include one pack of 20 bags.
 - (iv) Waste receptacles are to be installed according to manufacturer's specifications and as shown on the Drawings. Exact locations are to be determined on Site.
- (b) Benches
 - (i) Benches: Tache style wood bench without a back, Drawing No. SCD-121, Product No. 52501084, 1.8 M length (6'), manufactured by the City of Winnipeg:
Contact:
Aaron Lennon
Supervisor of Central Repair/Manufacturing Facility
City of Winnipeg
Telephone No.: (204) 986-5505

- (ii) Benches are to be purchased from the City and installed according to Drawings and City specifications.
- (c) Benches and waste receptacles are to be installed in conjunction with the paving. Tops of concrete footings are to be 200 mm below finished grade of all paving. Site furnishings are to be kept clean of any granular, concrete or other materials. Any damaged surfaces shall be touched-up to the satisfaction of the Contract Administrator.

E15.3 Basis of Payment

- (a) Payment for Work specified under this section shall be paid for at the Unit Price, measured on a per unit basis, for the Items of Work listed below, which price shall include all costs of material supply, and proper material installation. Site restoration work and required foundations shall be considered incidental to the Work.
- (b) Items of Work:
 - (i) Waste Receptacles
 - (ii) Benches

E16. SWINGS

E16.1 General Description

- (a) This specification shall cover the supply and installation of complete swing sets as specified herein.
- (b) This specification shall cover the supply and installation of replacement infant (bucket) seats c/w chains and swing hangers as specified herein.

E16.2 Product

- (a) Senior Swings
 - (i) SportsPlay Equipment Inc, Model #581-440: Tri-pod Leg, Two Bay, Heavy Duty Swing Frame, 3.0 m (10') high, complete with four (4) slash-proof rubber belt seats, heavy duty chain, swing hangers and hammer locks; or, approved Substitute in accordance with B6.
- (b) Junior Swings
 - (i) Landscape Structures Inc, Model #100050C and 111579C: Two Bay, Heavy Duty Arch Swing Frame, 2.4 m (8 ft.) high, complete with three (3) slash-proof rubber, enclosed infant seats and one (1) slash-proof rubber belt seat, heavy-duty chain, swing hanger clamp assemblies and bolt links; or, approved Substitute in accordance with B6.

E16.3 Materials – Senior Swings

- (a) Topbeam
 - (i) All topbeams shall be fabricated from min. 90 mm (3 1/2") O.D. 7 gauge, RS40 galvanized steel pipe.
- (b) Legs
 - (i) All legs shall be fabricated from min. 60 mm (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 and the bottom end of the posts shall be sealed with a moisture barrier.
- (c) Yoke Clamps
 - (i) All yoke clamps shall be either one piece construction and fabricated from 8 gauge, RS40 galvanized steel or two piece, compression clamping cast aluminum or

galvanized metal with baked on polyester powdercoating. They shall be complete with tamper-proof hardware.

(d) Swing Hangers

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

E16.4 Materials – Junior Swings

(a) Topbeam and Legs

- (i) All topbeams and legs shall be fabricated from 127 mm (5") O.D. aluminum alloy tube (.125" wall thickness) 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;
- (ii) Colour: Purple

(b) Swing Hanger Clamp Assembly

- (i) All swing hangers shall be fabricated from cast aluminum with powdercoat finish.

E16.5 Materials - Accessories

(a) Swing Chain

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

(b) Enclosed Infant (Bucket) Seats

- (i) 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.

(c) Belt Seats

- (i) 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.

(d) Hardware

- (i) All fasteners shall be socketed and tamperproof in design, and either carbon steel plated with zinc/nickel and iridescent chromate finish or stainless steel. Bolt links and "S" hooks shall be drop forged carbon steel, heat treated and hot dipped galvanized.

E16.6 Installation

- (a) Swings shall be installed as per the Canadian Standards Association Guidelines. Refer to Clause E4. For foundations refer to Clause E20.
- (b) Installation of swings shall be coordinated with associated Site development Work. Swings shall be secured and rendered unusable until safety surfacing is in place.
- (c) Swings shall be installed by factory certified installers only and to manufacturer's specifications.
- (d) Replacement swing seats shall be installed on existing swing frames as indicated on the Drawings. Chains and swing hangers shall be sized to fit existing conditions.
- (e) Swings shall be ordered and installation dates scheduled immediately upon award of Contract. Refer to Clause D9.2(c).

E16.7 Basis of Payment

- (a) Payment for Work specified under this section shall be paid for at the unit price for the "Items of Work" listed below, which price shall include all costs of supply and installation.
- (b) Items of Work:
 - (i) Swings - Senior
 - (ii) Swings - Junior
 - (iii) Replacement Infant Seats

E17. SPRING TOYS

E17.1 General Description

- (a) This specification shall cover the supply and installation of complete Spring Toys as specified herein.

E17.2 Products

- (a) Spring Toy - Style A: Landscape Structures Inc., "Gallopig Horse", Custom horse rider with graphics, product #143760, direct bury; or, approved Substitute in accordance with B6.
 - (i) Colour: one to be Black with white graphics and one to be Brown with white graphics.
- (b) Spring Toy - Style B: Landscape Structures Inc., "Baby Dragon", Custom enclosed rider with graphics as shown on Drawings, direct bury; or, approved Substitute in accordance with B6.
 - (i) Colour: Green and Tan with yellow flames.

E17.3 Shop Drawings

- (a) Further to CW 1110-R1, shop drawings shall be submitted to the Contract Administrator for the spring toys within (21) twenty-one Calendar Days of receipt of a Purchase Order.
- (b) Shop Drawings shall include, but not be limited to:
 - (i) Layout and configuration of equipment including required safety zones
 - (ii) Colours
 - (iii) Custom graphics or products

E17.4 Materials

- (a) Panels / Body / Seat
 - (i) Both Spring Toy Styles shall be fabricated from compressed or rotationally moulded, high-density polyethylene with U.V. stabilizers and all edges chamfered. Colours and graphics are to be moulded-in.
- (b) Spring / Mount
 - (i) The spring toys shall be mounted on a pinch-proof, coil spring assembly. The coil 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.
- (c) Hardware

- (i) 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.

E17.5 Installation

- (a) Spring Toys shall be installed as per the Canadian Standards Association Guidelines. Refer to Clause E4;
- (b) Spring Toys shall be installed by factory certified installers only and to manufacturer's specifications. For foundations refer to Clause E20;
- (c) Spring Toys shall be ordered and installation dates scheduled immediately upon award of Contract. Refer to Clause D9.2(c).

E17.6 Basis of Payment

- (a) Payment for Work specified under this section shall be paid for at the unit price for the "Items of Work" listed below, which price shall include all costs of supply and installation. Site restoration Work shall be considered incidental to the Work.
- (b) Items of Work:
 - (i) Spring Toy - Style A
 - (ii) Spring Toy - Style B

E18. PLAY PANELS

E18.1 General description

- (a) This specification shall cover the supply and installation of the Play Panels as shown on the Drawings:
 - (i) Panels shall be:
 - A) One (1) "Battle Knight" or "Robin Hood" custom graphics;
 - B) One (1) "Princess" or "Maid Marion" custom graphics.

E18.2 Products

- (a) Play Panels shall be two (2) Gametime routed HDPE ground level Panels c/w three (3) posts; or, approved Substitute in accordance with B6.

E18.3 Shop Drawings

- (a) Further to CW 1110-R1, shop drawings shall be submitted to the Contract Administrator for the play panels within (21) twenty-one Calendar Days of receipt of a Purchase Order.
- (b) Shop Drawings shall include, but not be limited to:
 - (i) Layout and configuration of equipment including required safety zones
 - (ii) Colours
 - (iii) Custom graphics or products

E18.4 Materials

- (a) Posts / Caps
 - (i) All posts shall be a minimum of 127 mm (5") O.D. round tubing. All posts shall be fabricated from aluminum (0.125" min. wall thickness) tubing with a baked-on TGIC 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. The bottom end of the posts is to be sealed with a moisture barrier;

- (ii) Top caps for posts shall be aluminum die cast and powder coated the same as the post colour. All caps shall be factory installed and secured in place with tamper proof, self-sealing rivets;

(b) Colours

- (i) Panels: Yellow with Red graphics or Green with Tan graphics;
- (ii) Posts: Red or Purple.
- (iii) Contract Administrator to approve colours.

E18.5 Installation

- (a) Play Panels shall be installed as per the Canadian Standards Association Guidelines. All posts and other vertical items shall be true to vertical. For foundations refer to Clause E20;
- (b) Play Panels shall be ordered and installation dates scheduled immediately upon award of Contract. Refer to Clause D9.2(c).

E18.6 Basis of Payment

- (a) Payment for Work specified under this section shall be paid for at the unit price for the "Items of Work" listed below, which price shall include all costs of supply and installation. Site restoration Work shall be considered incidental to the Work;
- (b) Items of Work:
 - (i) Play Panels

E19. PLAYSTRUCTURES

E19.1 General description

- (a) This specification shall cover the supply and installation of the Playstructures as shown on the Drawings.

E19.2 Products

- (a) "Royal Carriage" Structure shall be Landscape Structures Inc, Custom PlaySense System # 148640A with graphics as depicted on the attached Drawings; or, approved Substitute in accordance with B6.
- (b) "Castle" Structure shall be Landscape Structures Inc, Custom PlayBooster System # 6503-1-1 as shown on the attached Drawings; or, approved Substitute in accordance with B6.
 - (i) The railing along the path/ramp shall be Custom PlayBooster and included with the Playstructure.
- (c) 4 Pods shall be Landscape Structures Inc, to match the Custom PlayBooster System # 6503-1-1; or, approved Substitute in accordance with B6.
- (d) "Treehouse" Structure shall be Custom Gametime Treescape System #4640 as shown on the attached Drawings; or, approved Substitute in accordance with B6.

E19.3 Shop Drawings

- (a) Further to CW 1110-R1, shop drawings shall be submitted to the Contract Administrator for all the play equipment specified in this Section, within (21) twenty-one Calendar Days of receipt of a Purchase Order.
- (b) Shop Drawings shall include, but not be limited to:
 - (i) Layout and configuration of equipment including required safety zones

- (ii) Colours
- (iii) Custom graphics or products

E19.4 Materials

(a) Posts – “Royal Carriage” Structure

- (i) All posts shall be extruded from hardened aluminum with minimum wall thickness of 7 mm (.29”) with a baked-on TGIC 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.

(b) Posts / Caps – “Castle” Structure and “Treehouse” Structure

- (i) All posts shall be a minimum of 127 mm (5”) O.D. round tubing. All posts shall be fabricated from aluminum (0.125” min. wall thickness) tubing with a baked-on TGIC 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. The bottom end of the posts is to be sealed with a moisture barrier.
- (ii) Top caps for posts shall be aluminum die cast and powder coated the same as the post colour. All caps shall be factory installed and secured in place with tamper proof, self-sealing rivets.

(c) Decks

- (i) All decks shall be manufactured from vinyl-coated, perforated steel.
- (ii) Deck heights, shapes and configurations shall be as shown on the Drawings. Increments between deck heights shall be a max. 200 mm (8”) for the “Royal Carriage” structure and max. 300 mm (12”) for the other structures.
- (iii) The ‘Castle’ structure shall be wheelchair accessible to the three hex decks by way of ramps and bridges. All wheelchair accessible decks shall have barriers as required to prevent chairs from falling off edges.

(d) Clamping System

- (i) All deck, rail and play component clamping systems shall be fabricated from zinc plated, and galvanized steel, stainless steel or aluminum, and baked-on polyester powdercoated to match post colour unless noted otherwise. Tamper proof, corrosion resistant fasteners shall be used to retain clamping systems.

(e) Handrails, Safety Rails and Handloops

- (i) All handrails and safety rails shall be fabricated using a minimum of 1 1/8” 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 and baked-on polyester powdercoated;
- (ii) Handloops for the “Castle” shall be permalene panels with custom graphics.

(f) 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.

(g) Slides

- (i) Poly slides shall be rotationally moulded from U.V. stabilized linear low density polyethylene. Colours are to be compounded not dry-blended. Slides are to have an adjustable footer to allow for contraction and expansion. Hoods are to have built-in handle;

- (ii) Steel slides are to be 16-gauge 304 stainless steel. Hoods shall be rotationally moulded from U.V. stabilized linear low density polyethylene with built-in handle.
- (h) Cable Components
 - (i) Space Cable nets shall be fully assembled and made of six-stranded and tempered Corocord-rope (galvanized steel cable). The galvanized steel wire cores of the six strands are to be heated and covered with UV-stable polyamide nylon;
 - (ii) Chains shall be steel 3/16" straight link chain, 800 lb. working load limit.

E19.5 Play Components - "Royal Carriage" Structure:

- (a) The following play components are to be included on the Playstructure:
 - (i) one (1) 40" Double Steel Slide, 40" deck, double straight slide with poly hood;
 - (ii) one (1) Loop Ladder, 40" deck;
 - (iii) one (1) Step Deck;
 - (iv) one (1) Custom Sound Chimes Panel, permalene panel with graphics;
 - (v) one (1) Custom Driver Panel, permalene panel with graphics c/w two (2) Steering Wheels;
 - (vi) one (1) Turning Bar c/w End Post;
 - (vii) one (1) Straight Horizontal Ladder;
 - (viii) three (3) Custom Panels, permalene panels with graphics;
 - (ix) one (1) Clubhouse Bench c/w side panels;
- (b) The playstructure shall have grab bars, kickplates and handhold panels as shown on the Drawings and as required to meet the CAN/CSA -Z614-03.

E19.6 Play Components - "Castle" Structure:

- (a) The following play components are to be included on the Playstructure:
 - (i) two (2) SteelX Square Roofs c/w flags;
 - (ii) one (1) Arch Bridge c/w railings and custom castle graphics panel one side;
 - (iii) one (1) Bridge/ramp c/w barriers and handrails;
 - (iv) one (1) Custom Bridge/ramp c/w barriers, handrails and custom ramp exit plate;
 - (v) one (1) Clatter Bridge, 7' length, 48" deck, c/w barriers;
 - (vi) one (1) Double Swirl Poly Slide, 48" deck;
 - (vii) one (1) 18" Stainless Steel Slide, 56" deck, single straight slide with poly hood;
 - (viii) one (1) Slingshot Climber, cable climber to 56" and 64" decks;
 - (ix) one (1) Sky Rail Climber, 72" deck;
 - (x) one (1) Corkscrew Climber, 72" deck;
 - (xi) one (1) Tri-deck Loop Arch Climber, 64" deck;
 - (xii) one (1) Star Seeker, cable climber to 72" deck;
 - (xiii) one (1) Funnel Net Climber c/w one (1) vertical ladder, connect to 72" deck;
 - (xiv) one (1) Circus Ladder, 56" deck;
 - (xv) one (1) Cliff Climber, 48" deck, inclined plank with footholds and chain;
 - (xvi) one (1) Step Ladder, 48" deck;
 - (xvii) one (1) Loop Ladder, 48" deck;
 - (xviii) one (1) Vertical Ascent Climber, 64" deck;
 - (xix) four (4) Pod Climbers, one at 32", one at 24" height, one at 16" height and one at 8" height c/w handholds;

- (xx) one (1) Navigator Reach Panel on Balcony Deck;
 - (xxi) one (1) Periscope Reach Panel on Balcony Deck;
 - (xxii) one (1) Pipe Barrier, 40" deck;
 - (xxiii) one (1) Chimes Panel, 56" deck;
 - (xxiv) one (1) Slant Entrance Panel, ground level;
 - (xxv) three (3) custom Top Castle Panels;
 - (xxvi) three (3) custom Below Deck Castle Panels;
 - (xxvii) one (1) custom Castle Arch Panel on tall pole c/w Flags;
 - (xxviii) two (2) custom Castle Entrance Panels, ground level;
 - (xxix) four (4) custom Railing sections c/w posts for retaining wall and path/ramp area.
- (b) The playstructure shall have grab bars, kickplates and handhold panels as shown on the Drawings and as required to meet the CAN/CSA -Z614-03. The handhold panels and play panels shall have custom castle graphics.

E19.7 Play Components - 4 Pods

- (a) four (4) Pod Climbers, two at 16" height and two at 8" height, to match "Castle" Structure.

E19.8 Play Components - "Treehouse" Structure:

- (a) The following play components are to be included on the Playstructure:
 - (i) two (2) Treescape Decks c/w Internal Climber, 8' deck;
 - (ii) one (1) Sky Bridge c/w Loop Ladder Package below bridge, 8' deck;
 - (iii) one (1) Canopy Roof, leaf pattern;
 - (iv) one (1) 18" Stainless Steel Straight Chuter Slide, 8' deck, single straight slide;
 - (v) one (1) Poly Wilderslide, 8' deck;
 - (vi) two (2) Trunk Climbers, 8' deck;
 - (vii) two (2) Balustrade Barriers;
 - (viii) one (1) Barrier Rung Enclosure c/w Telescope;
 - (ix) two (2) Stepped Platforms, 2' deck height difference;
 - (x) one (1) Wavy Tree Climber, 5' deck;
 - (xi) one (1) DNA Climber, 6' deck;
 - (xii) one (1) Leaning Wall Climber, 3' deck;
 - (xiii) one (1) Punched Steel Stairs, 2' deck;
 - (xiv) one (1) Toad Stool Climber c/w handhold package.
- (b) The playstructure shall have grab bars, kickplates and handhold panels as shown on the Drawings and as required to meet the CAN/CSA -Z614-03.

E19.9 Colours

- (a) "Royal Carriage":
 - (i) Purple - Posts and components;
 - (ii) Red - Clamps, Slide Hood and Tendertuff;
 - (iii) Black - Wheels;
 - (iv) Red with yellow graphics - Panels;
 - (v) Brown - Decks;
- (b) "Castle" and 4 Pods:
 - (i) Purple - Posts and roofs;

- (ii) Green – Slides, clamps, and metal play components;
- (iii) Tan – Tendertuff;
- (iv) Green with tan graphics – Panels;
- (v) Red – Flags, periscope, steering wheel, loop ladder and cable components;
- (vi) Brown – Decks;
- (c) “Treehouse”:
 - (i) Brown – Posts, poly slides and decks;
 - (ii) Beige – Leaning Wall and Loop Ladder;
 - (iii) Dark Green – All other components, roof and barriers.

E19.10 Installation

- (a) Playstructures shall be installed as per the Canadian Standards Association Guidelines. All posts and other vertical items shall be true to vertical. All decks shall be level. For foundations refer to Clause E20.
- (b) Playstructures shall be installed by factory certified installers only and to manufacturer's specifications.
- (c) Installation of playstructures shall be coordinated with associated Site development Work. The playstructures shall be secured and rendered unusable until safety surface is in place.
- (d) Playstructures shall be ordered and installation dates scheduled immediately upon award of Contract. Refer to Clause D9.2(c).

E19.11 Basis of Payment

- (a) Payment for Work specified under this section shall be paid for at the unit price for the “Items of Work” listed below, which price shall include all costs of supply and installation:
- (b) Items of Work:
 - (i) Playstructure – “Royal Carriage”;
 - (ii) Playstructure – “Castle”;
 - (iii) 4 Pods;
 - (iv) Playstructure – “Treehouse”.

E20. FOUNDATIONS

E20.1 All Site furniture and 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-R6 – Concrete Underground Structures and Works, is to be utilized in the installation of the concrete works for all below ground components.

E20.2 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 40 mm, nominal;
- (d) slump 90 20 mm;
- (e) maximum water/cement ratio 0.45.

E20.3 Installation

- (a) Contractor shall notify the Contract Administrator at least 48 hours prior to installation of concrete, so that footings may be inspected in advance of concrete being poured;
- (b) Playstructure posts shall have a minimum 300mm (12") diameter concrete footing and shall be centred in the concrete footing to provide a minimum 50mm (2") band of concrete on all sides;
- (c) Work under this section is considered incidental to the installation of playstructures and Site furniture.