



**THE CITY OF WINNIPEG**

# **BID OPPORTUNITY**

**BID OPPORTUNITY NO. 192-2009**

**PLAYGROUND RENOVATION – ROY DAVIS PARK**

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## **PART B - BIDDING PROCEDURES**

### **B1. CONTRACT TITLE**

B1.1 PLAYGROUND RENOVATION – ROY DAVIS PARK

### **B2. SUBMISSION DEADLINE**

B2.1 The Submission Deadline is 4:00 p.m. Winnipeg time, April 21, 2009.

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

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

### **B3. SITE INVESTIGATION**

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

B3.2 Upon request, the Contract Administrator will provide photographs of the Site taken in summer 2008. The Bidder is advised that the photographs may not accurately represent the current conditions of the park and that the Bidder shall not be entitled to rely on any interpretation of the photographs unless that information is the Bidder's direct observation.

### **B4. ENQUIRIES**

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

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

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

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

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

### **B5. ADDENDA**

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

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

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

- B5.2.2 The Bidder is responsible for ensuring that he has received all addenda and is advised to check the Materials Management Division website for addenda regularly and shortly before the Submission Deadline, as may be amended by addendum.
- B5.2.3 The Bidder shall acknowledge receipt of each addendum in Paragraph 8 of Form A: Bid. Failure to acknowledge receipt of an addendum may render a Bid non-responsive.

## **B6. SUBSTITUTES**

- B6.1 The Work is based on the Plant, Materials and methods specified in the Bid Opportunity.
- B6.2 Substitutions shall not be allowed unless application has been made to and prior approval has been granted by the Contract Administrator in writing.
- B6.3 Requests for approval of a substitute will not be considered unless received in writing by the Contract Administrator at least five (5) Business Days prior to the Submission Deadline.
- B6.4 The Bidder shall ensure that any and all requests for approval of a substitute:
- (a) provide sufficient information and details to enable the Contract Administrator to determine the acceptability of the Plant, Material or method as either an approved equal or alternative;
  - (b) identify any and all changes required in the applicable Work, and all changes to any other Work, which would become necessary to accommodate the substitute;
  - (c) identify any anticipated cost or time savings that may be associated with the substitute;
  - (d) certify that, in the case of a request for approval as an approved equal, the substitute will fully perform the functions called for by the general design, be of equal or superior substance to that specified, is suited to the same use and capable of performing the same function as that specified and can be incorporated into the Work, strictly in accordance with the proposed work schedule and the dates specified in the Supplemental Conditions for Substantial Performance and Total Performance;
  - (e) certify that, in the case of a request for approval as an approved alternative, the substitute will adequately perform the functions called for by the general design, be similar in substance to that specified, is suited to the same use and capable of performing the same function as that specified and can be incorporated into the Work, strictly in accordance with the proposed work schedule and the dates specified in the Supplemental Conditions for Substantial Performance and Total Performance.
- B6.5 The Contract Administrator, after assessing the request for approval of a substitute, may in his 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.

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

**B7. BID COMPONENTS**

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

- (a) Form A: Bid;
- (b) Form B: Prices;
- (c) Design Drawings (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 Submission may be submitted by mail, courier or personal delivery, or by facsimile transmission.

B7.5 If the Bid Submission is submitted by mail, courier or personal delivery, it shall be enclosed and sealed in an envelope clearly marked with the Bid Opportunity number and the Bidder's name and address, and shall be submitted to:

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

B7.5.1 Samples or other components of the Bid Submission which cannot reasonably be enclosed in the envelope may be packaged separately, but shall be clearly marked with the Bid Opportunity number, the Bidder's name and address, and an indication that the contents are part of the Bidder's Bid Submission.

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

B7.7 Bidders are advised that inclusion of terms and conditions inconsistent with the Bid Opportunity document, including the General Conditions, will be evaluated in accordance with B16.1(a).

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

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

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

**B8. BID**

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

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

- (a) if the Bidder is a sole proprietor carrying on business in his 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 should be printed below such signatures.

B8.4.2 All signatures shall be original.

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

## **B9. PRICES**

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

B9.1.1 Notwithstanding C12.2.3(c), prices on Form B: Prices shall include the Manitoba Retail Sales Tax (MRST, also known as PST), but exclude the 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 Bidder **must** complete the Approximate Quantity column for items 2, 4, and 5 on Form B: Prices. These quantities are dependant on the proposed design as submitted.

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

B9.5 Prices from Non-Resident Bidders are subject to a Non-Resident Withholding Tax pursuant to the Income Tax Act (Canada).

## **B10. QUALIFICATION**

B10.1 The Bidder shall:

- (a) undertake to be in good standing under The Corporations Act (Manitoba), or properly registered under The Business Names Registration Act (Manitoba), or otherwise properly registered, licensed or permitted by law to carry on business in Manitoba; and
- (b) be financially capable of carrying out the terms of the Contract; and

- (c) have all the necessary experience, capital, organization, and equipment to perform the Work in strict accordance with the terms and provisions of the Contract.

B10.2 The Bidder and any proposed Subcontractor (for the portion of the Work proposed to be subcontracted to them) shall:

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

B10.3 The Bidder and/or any proposed Subcontractor (for the portion of the Work proposed to be subcontracted to them) shall:

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

B10.4 The Bidder shall submit, within three (3) Business Days of a request by the Contract Administrator, proof satisfactory to the Contract Administrator of the qualifications of the Bidder and of any proposed Subcontractor.

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

## **B11. DESIGN DRAWINGS**

B11.1 The Bidder shall submit drawings, which illustrate the proposed design and play equipment, such as plan, colour perspective, and any other submissions to illustrate the design intent. Additional drawings may be requested prior to award for more detailed evaluation.

## **B12. COMPONENT DESCRIPTION**

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

## **B13. OPENING OF BIDS AND RELEASE OF INFORMATION**

B13.1 Bids will not be opened publicly.

B13.2 Following the submission deadline, the names of the Bidders and their Total Bid Prices (unevaluated, and pending review and verification of conformance with requirements) will be available on the Closed Bid Opportunities (or Public/Posted Opening & Award Results) page at The City of Winnipeg, Corporate Finance, Materials Management Division website at <http://www.winnipeg.ca/matmgt/bidopp.asp>

B13.3 After award of Contract, the name(s) of the successful Bidder(s) and the Contract Amount(s) will be available on the Closed Bid Opportunities (or Public/Posted Opening & Award Results) page at The City of Winnipeg, Corporate Finance, Materials Management Division website at <http://www.winnipeg.ca/matmgt>

B13.4 The Bidder is advised that any information contained in any Bid may be released if required by City policy or procedures, by The Freedom of Information and Protection of Privacy Act (Manitoba), by other authorities having jurisdiction, or by law.



#### **B14. IRREVOCABLE BID**

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

#### **B15. WITHDRAWAL OF BIDS**

- B15.1 A Bidder may withdraw his 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 or acceptable deviation there from (pass/fail);
  - (b) Qualifications of the Bidder and the Subcontractors, if any, pursuant to B10 (pass/fail);
  - (c) Total Bid Price (10 Points) pursuant to B16.6;
  - (d) Design Drawings and Component Description (90 Points) pursuant to B16.7;
  - (e) Economic analysis of any approved alternative pursuant to B6.
- B16.2 Further to B16.1(a), the Award Authority may reject a Bid as being non-responsive if the Bid is incomplete, obscure or conditional, or contains additions, deletions, alterations or other irregularities. The Award Authority may reject all or any part of any Bid, or waive technical requirements or minor informalities or irregularities, if the interests of the City so require.
- B16.3 Further to B16.1(b), the Award Authority shall reject any Bid submitted by a Bidder who does not demonstrate, in his Bid or in other information required to be submitted, that he is responsible and qualified.
- B16.4 Further to B16.1(c) the Award Authority may reject a Bid as being non-responsive if it exceeds the budget as shown on Form B: Prices.

- B16.5 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.
- B16.5.1 If there is any discrepancy between the Total Bid Price written in figures, the Total Bid Price written in words and the sum of the quantities multiplied by the unit prices for each item, the sum of the quantities multiplied by the unit prices for each item shall take precedence.
- B16.5.2 The approximate quantities proposed by the Bidder, for items 2, 4, and 5 on Form B: Prices, will be multiplied by the unit prices for each item.
- B16.5.3 Further to B16.1(a), in the event that a unit price is not provided on Form B: Prices, the City will determine the unit price by dividing the Amount (extended price) by the approximate quantity, for the purposes of evaluation and payment.
- B16.6 The Total Bid Price shall be evaluated with a weighting of 10 points out of a total of 100 possible points. As such, the lowest Bidder shall receive the full 10 points, and the second lowest Bidder and subsequent Bidders shall be pro-rated accordingly.
- B16.7 Further to B16.1(d), Design Drawings and Component Description shall be evaluated with a weighting of 90 points out of a total of 100 possible points. Design Drawings will be evaluated considering the Bidder's Bid Submission and any other information required.
- B16.7.1 The Design shall be evaluated on the following criteria:
- (a) compliance with CSA Standards (pass/fail);
  - (b) play value (maximum 50 points):
    - (i) 10 points - Variety of activities and play experiences provided;
    - (ii) 5 points - Variety of access points & egress points including one "easy" access route to all areas of the structure;
    - (iii) 5 points – Inclusion and selection of a unique climbing component as per E20.7(b)(vi);
    - (iv) 5 points - Provides opportunities for social / interpersonal interaction, creative and cooperative play;
    - (v) 5 points - Provides for fine and gross motor development;
    - (vi) 5 points – Overall aesthetic and coordination of components;
    - (vii) 10 points – Inclusion and selection of independent play components;
    - (viii) 5 points - Uniqueness of components as compared to similar playgrounds components within walking distance (400m) of the park.
  - (c) Designed for inclusive play using Universal Design principles – Accessible Play Area only (maximum 10 points):
    - (i) Complies with section 4.5.4 of the 2006 City of Winnipeg Accessibility Design Standards ( [www.winnipeg.ca/ppd/UD/default.stm](http://www.winnipeg.ca/ppd/UD/default.stm) )(pass/fail);
    - (ii) 5 points - Provide minimum one (1) slide to be accessible by transfer system and well-integrated with other play;
    - (iii) 3 points - Layout of the play area for integration of the wheelchair accessible components to promote inclusive play;
    - (iv) 2 points – Provision of tactile and auditory play experiences.
  - (d) Layout/circulation (maximum 18 points):
    - (i) 5 points - Efficient use of space within and between play elements;
    - (ii) 5 points - Flow and relationship between play area activities;
    - (iii) 3 points - Relationship between play activities and adjacent site features such as paths;
    - (iv) 2 points - Layout / orientation of components on Site to provide good visibility to play areas from the adjacent road;
    - (v) 3 points - Slide orientation.

- (e) Durability and Service (maximum 12 points):
  - (i) 3 points - Uses durable / tamper-resistant materials;
  - (ii) 3 points - Low maintenance finishes and connector systems;
  - (iii) 3 points - Ease of repair / replacement;
  - (iv) 3 points –Bidder’s warranty service history.

B16.8 Further to B16.7.1(a), if Bidder states play equipment components and layouts are compliant with CSA Standards and they are not, liquidated damages shall be charged as per D17 should this result in additional design and/or meeting time on the part of the Contract Administrator.

**B17. AWARD OF CONTRACT**

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

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

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

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

B17.3 Where an award of Contract is made by the City, the award shall be made to the responsible and qualified Bidder submitting the lowest evaluated responsive Bid, in accordance with B16.

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

B17.4 Notwithstanding C4, the City will issue a Purchase Order to the successful Bidder in lieu of the execution of a Contract.

B17.5 The Contract, as defined in C1.1, in its entirety shall be deemed to be incorporated in and to form a part of the Purchase Order notwithstanding that it is not necessarily attached to or accompany said Purchase Order.

## PART C - GENERAL CONDITIONS

### C0. GENERAL CONDITIONS

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

## **PART D - SUPPLEMENTAL CONDITIONS**

### **GENERAL**

#### **D1. GENERAL CONDITIONS**

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

#### **D2. SCOPE OF WORK**

D2.1 The Work to be done under the Contract shall consist of the renovation of the playground at Roy Davis Park, located at 475 Thames Avenue, Winnipeg.

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

- (a) Removal of existing stone protective surfacing;
- (b) Supply and installation of timber edging;
- (c) Supply and installation of safety stone protective surfacing and wood fibre protective surfacing systems;
- (d) Supply and installation of new swings and other play equipment;
- (e) Supply and installation of benches;
- (f) Supply and installation of sod.

#### **D3. CONTRACT ADMINISTRATOR**

D3.1 The Contract Administrator is David Wagner Associates Inc, represented by:

Laurie Lamb Wagner  
Landscape Architect  
4-430 River Avenue  
Winnipeg, Manitoba  
R3L 0C6

Telephone No. (204) 452-2426

E-Mail Address: [llamb@dwla.ca](mailto:llamb@dwla.ca)

D3.2 At the pre-construction meeting, Laurie Lamb 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 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 email address identified in D3.1.

- D5.3 Notwithstanding C21., all notices of appeal to the Chief Administrative Officer shall be sent to the attention of the Chief Financial Officer at the following address or facsimile number:

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

## **SUBMISSIONS**

### **D6. AUTHORITY TO CARRY ON BUSINESS**

- D6.1 The Contractor shall be in good standing under The Corporations Act (Manitoba), or properly registered under The Business Names Registration Act (Manitoba), or otherwise properly registered, licensed or permitted by law to carry on business in Manitoba, or if the Contractor does not carry on business in Manitoba, in the jurisdiction where the Contractor does carry on business, throughout the term of the Contract, and shall provide the Contract Administrator with evidence thereof upon request.

### **D7. SAFE WORK PLAN**

- D7.1 The Contractor shall provide the Contract Administrator with a Safe Work Plan at least five (5) Business Days prior to the commencement of any Work on the Site but in no event later than the date specified in C4.1 for the return of the executed Contract.
- D7.2 The Safe Work Plan should be prepared and submitted in the format shown in the City's template which is available on the Information Connection page at The City of Winnipeg, Corporate Finance, Materials Management Division website at <http://www.winnipeg.ca/matmgt/Safety/default.stm>

### **D8. INSURANCE**

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

- (b) 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 thirty (30) Calendar Days prior written notice to the Contract Administrator.

## **D9. PERFORMANCE SECURITY**

D9.1 If the Contract Price exceeds one hundred thousand dollars (\$100,000.00), the Contractor shall provide and maintain performance security until the expiration of the warranty period in the form of:

- (a) a performance bond of a company registered to conduct the business of a surety in Manitoba, in the form attached to these Supplemental Conditions (Form H1: Performance Bond), in the amount of fifty percent (50%) of the Contract Price; or
- (b) an irrevocable standby letter of credit issued by a bank or other financial institution registered to conduct business in Manitoba and drawn on a branch located in Winnipeg, in the form attached to these Supplemental Conditions (Form H2: Irrevocable Standby Letter of Credit), in the amount of fifty percent (50%) of the Contract Price; or
- (c) a certified cheque or draft payable to "The City of Winnipeg", drawn on a bank or other financial institution registered to conduct business in Manitoba, in the amount of fifty percent (50%) of the Contract Price.

D9.1.1 Where the performance security is in the form of a certified cheque or draft, it will be deposited by the City. The City will not pay any interest on certified cheques or drafts furnished as performance security.

D9.2 The Contractor shall provide the City Solicitor with the required performance security within seven (7) Calendar Days of notification of the award of the Contract by way of Purchase Order and prior to the commencement of any Work on the Site.

## **D10. SUBCONTRACTOR LIST**

D10.1 The Bidder shall submit a complete list of the Subcontractors whom the Contractor proposes to engage (Form J: Subcontractor List).

D10.2 The Bidder shall list the play equipment installer even if the Bidder intends to perform the Work with his own crew.

## **D11. FINAL LAYOUT OF PLAY EQUIPMENT**

D11.1 The Contractor shall provide the Contract Administrator with the final layout of all the play equipment with associated safety and non-encroachment zones and the timber edging, within five (5) Calendar Days of receipt of the Purchase Order.

## **D12. DETAILED WORK SCHEDULE**

D12.1 The Bidder shall provide a detailed work schedule (Form L: Detailed Work Schedule).

D12.2 The detailed work schedule shall consist of the following:

- (a) Ordering of play equipment, refer to D11 and D13.3;

- (b) Delivery of play equipment;
- (c) Start of Work on Site;
- (d) Removals, excavation and site preparation;
- (e) Installation of play equipment including the excavation of holes and concrete pouring for posts;
- (f) Site development and site restoration;
- (g) Completion.

## **SCHEDULE OF WORK**

### **D13. COMMENCEMENT**

- D13.1 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.
- D13.2 The Contractor shall not commence any Work on the Site until:
- (a) the Contract Administrator has confirmed receipt and approval of:
    - (i) evidence of authority to carry on business specified in D6;
    - (ii) evidence of the workers compensation coverage specified in C6.15;
    - (iii) the Safe Work Plan specified in D7;
    - (iv) evidence of the insurance specified in D8;
    - (v) the performance security specified in D9;
    - (vi) the subcontractor list specified in D10;
    - (vii) the final layout of play equipment specified in D11, and;
    - (viii) the detailed Work schedule specified in D12.
  - (b) the Contractor has attended a pre-construction meeting with the Contract Administrator, or the Contract Administrator has waived the requirement for a pre-construction meeting.
- D13.3 Upon review of the final layout of all the play equipment by the Contract Administrator in Clause D11, the Contractor shall order the play equipment within seven (7) Calendar Days of receipt of the Purchase Order and inform the Contract Administrator of such.
- D13.4 The Contractor shall commence the Work on the Site within fifty-six (56) Calendar Days (8 weeks) of receipt of the Purchase Order, and not more than seven (7) Calendar Days prior to the scheduled installation of the play equipment.
- D13.5 The City intends to award this Contract within four (4) weeks after Submission Deadline.

### **D14. WORK BY OTHERS**

- D14.1 Works by others on or near the Site will include but not necessarily be limited to:
- (a) Maintenance work by City of Winnipeg;
  - (b) Removal of existing play structures, swings, timber edging and site furniture by City of Winnipeg.

### **D15. SUBSTANTIAL PERFORMANCE**

- D15.1 The Contractor shall achieve Substantial Performance within fifteen (15) consecutive Working Days of the commencement of the Work on Site as specified in D13.
- D15.2 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.

- D15.3 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.

#### **D16. TOTAL PERFORMANCE**

- D16.1 The Contractor shall achieve Total Performance within twenty (20) consecutive Working Days of the commencement of the Work on Site as specified in D13.
- D16.2 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.
- D16.3 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.

#### **D17. LIQUIDATED DAMAGES**

- D17.1 If the Contractor fails to achieve Total Performance in accordance with the Contract by the day fixed herein for Total Performance, the Contractor shall pay the City five hundred dollars (\$500) per Working Day for each and every Working Day following the day fixed herein for Total Performance during which such failure continues.
- D17.2 The amount specified for liquidated damages in D17.1 is based on a genuine pre-estimate of the City's damages in the event that the Contractor does not achieve Total Performance by the day fixed herein for same.
- D17.3 The City may reduce any payment to the Contractor by the amount of any liquidated damages assessed.

#### **D18. SCHEDULED MAINTENANCE**

- D18.1 The Contractor shall perform the following scheduled maintenance in the manner and within the time periods required by the Specifications:
- (a) Sodding as specified in E17.3.
- D18.2 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**

##### **D19. JOB MEETINGS**

- D19.1 Job meetings will be held at the Site as required. 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.

D19.2 The Contract Administrator reserves the right to cancel any job meeting or call additional job meetings whenever he deems it necessary.

**D20. PRIME CONTRACTOR – THE WORKPLACE SAFETY AND HEALTH ACT (MANITOBA)**

D20.1 Further to C6.24, the Contractor shall be the Prime Contractor and shall serve as, and have the duties of the Prime Contractor in accordance with The Workplace Safety and Health Act (Manitoba).

**MEASUREMENT AND PAYMENT**

**D21. PAYMENT**

D21.1 Further to C12, the City may at its option pay the Contractor by direct deposit to the Contractor's banking institution.

**WARRANTY**

**D22. WARRANTY**

D22.1 Warranty is as stated in C13.

D22.1.2 Manufacturer's warranties on play equipment and safety surfacing shall apply.

**FORM H1: PERFORMANCE BOND**  
(See D9)

KNOW ALL MEN BY THESE PRESENTS THAT

\_\_\_\_\_ ,  
(hereinafter called the "Principal"), and

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

\_\_\_\_\_ dollars (\$\_\_\_\_\_)

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

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

BID OPPORTUNITY NO. 192-2009

PLAYGROUND RENOVATION – ROY DAVIS 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 as to Principal if no seal)

\_\_\_\_\_  
(Name of Principal)

Per: \_\_\_\_\_ (Seal)

Per: \_\_\_\_\_

\_\_\_\_\_  
(Name of Surety)

By: \_\_\_\_\_ (Seal)  
(Attorney-in-Fact)

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

\_\_\_\_\_  
(Date)

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

RE: PERFORMANCE SECURITY - BID OPPORTUNITY NO. 192-2009  
PLAYGROUND RENOVATION – ROY DAVIS 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 AND DRAWINGS

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

<u>Drawing No.</u>	<u>Drawing Name/Title</u>
RD-L1	Existing Conditions and Removals Plan
RD-L2	Development Plan
RD-L3	Details

- E1.3.1 Drawing RD-L2 is available on request in AutoCAD .dwg format or Vectorworks format from the Contract Administrator.

### GENERAL REQUIREMENTS

#### E2. SITE ACCESS

- E2.1 Access to the Site will be determined at the pre-construction meeting. The access areas shall be maintained and restored by the Contractor at his own expense and approved by the Contract Administrator.
- E2.2 The Contractor shall be restricted to the Site access location and routes only so that there is a minimum of disturbance to the existing ground surface. Damage to areas beyond the marked routes shall be repaired by and at the expense of the Contractor to the satisfaction of the Contract Administrator.

#### E3. PERMITS, NOTICES, LICENSES, CERTIFICATES, LAWS AND RULES

- E3.1 Further to C: 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.
- E3.2 The Contractor shall comply with all laws, ordinances, rules and regulations that would relate to the Work.
- E3.3 All notices, consents, approvals, statements, authorizations, documents or other communications to the City shall be submitted to the Contract Administrator.
- E3.4 All Work shall be performed in compliance with Manitoba Workplace Safety and Health.

E3.5 All Work shall be performed in compliance with Manitoba Workplace Safety and Health Fall Protection guidelines.

E3.6 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 Safety and Health 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.

#### **E4. PROTECTION OF SURVEY INFRASTRUCTURE**

E4.1 The project has been cleared for survey monuments. The Geomatics Cleared Job Number is 8867.

#### **E5. DAMAGE TO EXISTING STRUCTURES AND PROPERTY**

E5.1 Further to C: 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 Sites 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.

#### **E6. EXISTING SERVICES AND UTILITIES**

E6.1 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.

#### **E7. PROTECTION OF EXISTING TREES**

- E7.1 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 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.

- E7.2 Obtain approval from the Contract Administrator to excavate within 2.0 M of a tree.
- E7.3 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.
- E7.4 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.
- E7.5 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.
- E7.6 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.
- E7.7 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.

## **E8. TEMPORARY UTILITIES**

- E8.1 Further to C: 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.
- E8.2 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.

## **E9. SITE ENCLOSURES**

- E9.1 Temporary Site enclosures, if determined necessary at the pre-construction meeting, shall be erected and maintained as required for the duration of the construction period.
- E9.2 Site enclosures shall be considered incidental to the Contract Work.

## **E10. LAYOUT**

- E10.1 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 suppliers to ensure that CSA requirements are met.
- E10.2 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.

## **E11. CANADIAN STANDARDS ASSOCIATION**

E11.1 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-Z614-07".

## **E12. MAINTENANCE KITS**

E12.1 All play equipment shall include, at no extra cost, 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**

### **E13. REMOVALS AND SITE PREPARATION**

E13.1 General Description

(a) This specification shall cover the excavation and removals of materials and preparation of play areas to receive new timber edging and protective surfacing and those areas that are to be sodded.

E13.2 Work by Others

(a) Existing play equipment, timber edging and site furniture shall be removed by the City of Winnipeg prior to the Contractor starting Work on Site.

E13.3 Site Preparation

- (a) Existing stone protective surfacing shall be removed from the Site and disposed in a safe and legal manner.
- (i) The Contractor may choose to salvage and stockpile existing stone surfacing for use in the new play areas as specified in E15 and if approved by the Contract Administrator.
  - (ii) Only clean and uncontaminated stone may be used.
- (b) Care is to be taken to protect existing trees and adjacent asphalt. Where the existing tree is to be contained within the play area, excavation around the tree shall be done by non-mechanical means and excavation depth shall be determined on Site in consultation with the Contract Administrator.
- (c) New play areas are to be excavated to the depth required for the installation of timber edging and correct depth of protective surfacing as shown on the Drawings and as required in E11. All extraneous materials are to be removed from the Site and disposed of in a safe and legal manner.

E13.4 Site Restoration

(a) Turf shall be repaired as required in accordance with City of Winnipeg Standard Specifications for Topsoil and Sodding. Any turf repair required due to removals, and not shown on the Drawings and the Bidder's proposed design as Turf Renovation, shall be considered incidental to the removal Work.

E13.5 Basis of Payment

- (a) Payment for Work specified under this section shall be paid for at the Unit Price, measured on a lump sum, which price shall include all costs of excavation and proper disposal, and any associated Site restoration.
- (b) Items of Work:
- (i) Excavation and Site Preparation

## **E14. TIMBER EDGING**

### **E14.1 General Description**

- (a) This specification shall cover the supply and installation of timber edging to contain the protective surfacing for the playground areas.

### **E14.2 Materials**

- (a) Timber Edging shall be subject to inspection and approval by the Contract Administrator.
- (b) Timber Edging shall be as shown on SCD 651 on Drawing RD-L3.
- (c) All wood for the bottom row shall be spruce, pine or fir, No. 2 or better, no wane, bark, checking or splitting permitted. Wood shall be smooth and free of rough areas. All timbers to be 150 x 150mm with a minimum length of 1200mm.
- (d) For timber edging that will be in contact with the ground soil, the wood shall be ACQ pressure treated (P.T.). All ends and cuts shall be treated with preservative before being secured.
- (e) For exposed timber edging (top tier), the wood shall be untreated 32 x 150 Pedra, minimum length 1200mm.
- (f) Geotextile fabric shall be in accordance with CW 3130 and installed between the crushed granular base and the protective surfacing.
- (g) Granular base shall conform to CW 3110 and CW 3130.

### **E14.3 Methods**

- (a) Layout of edging shall be as shown on the Drawings and as per Bidder's proposed design, or as approved, to adequately provide protective surfacing area around play equipment, based on the most recent CSA safety zone requirements.
- (b) A 3.0 metre (10') offset shall be maintained from all existing trees unless approved by Contract Administrator.
- (c) Grades for the installation of timber edging shall be as shown on Drawings or as determined on Site in consultation with the Contract Administrator.
- (d) A minimum of two (2) accessible entrances shall be located along the pathway.
- (e) Timber Edging shall be installed as per SCD 651.
  - (i) A compacted granular base course shall be installed to a minimum 75mm depth and as required to set the timbers at the correct grade. It is to be compacted to a minimum of 95 percent Proctor Density.
  - (ii) Base course timbers shall be pinned with a minimum of two (2) 19mm diameter by 500mm rebar at maximum 1200mm O.C.
  - (iii) The Pedra cap shall be predrilled and screwed with two screws at each end of the timber and at alternating sides at 600mm O.C. Screws shall be treated for ACQ use and sized to suit.
- (f) All timbers shall be cut neatly for a proper fit with no spaces or gaps between. All cuts, except in the cap boards, shall be treated before being secured. Finished elevations shall ensure that all timbers are smooth, level, set plumb and spaced uniformly.
- (g) All corners and joints shall be lap joints where one layer overlaps the join of the other.
- (h) Topsoil shall be used to bury the outer edge of all treated timbers. Turf shall be repaired as required around edging in accordance with City of Winnipeg Standard Specifications for Topsoil and Sodding. Unless noted on the Drawings as areas for Turf Renovation or as per Bidder's proposed design, this shall be considered incidental to the timber edging Work.

### **E14.4 Basis of Payment**

- (a) Payment for Work specified under this section shall be paid for at the Unit Price, measured on a linear metre basis for the Items of Work listed below, which price shall include all

costs of material supply, excavation, sub-grade preparation, proper material installation and any associated Site restoration.

- (b) The Bidder **must** indicate for Item 2 on Form B: Prices the required quantity of units, dependant on the submission.
- (c) Items of Work
  - (i) Timber Edging

## **E15. SAFETY STONE PROTECTIVE SURFACES**

### **E15.1 General Description**

- (a) This specification shall cover the supply and installation of Safety Stone for play areas.

### **E15.2 Materials**

- (a) Safety Stone shall be 6.0mm Playground Stone, composition shall be Typical Birds Hill glacial till material, 100% clean river-washed granite conforming to the following sizes of sieve:

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

- (b) Samples of the specified material and sieve analysis shall be submitted for approval to the Contract Administrator at least seven (7) Calendar Days prior to ordering of the material.

### **E15.3 Use of Existing Stone Protective Surfacing**

- (a) Existing safety stone on Site, if deemed suitable by the Contract Administrator, may be salvaged for use as the bottom layer of Safety Stone.
- (b) A minimum of 200mm depth of new material shall be placed on top to reach the required depth.

### **E15.4 Methods**

- (a) Safety Stone shall be installed within the play area to the minimum depths shown on the Drawings or as approved to adequately provide the correct depth based on the most recent CSA safety requirements.
- (b) The installation of the Safety Stone shall be done immediately after the play equipment has been installed.
- (c) Installation shall be done by equipment sized to suit the Work being done and the Safety Stone shall be spread by hand in the immediate vicinity of the play equipment so as not to damage the same.
- (d) The play equipment shall be swept clean as required after installation of the Safety Stone.
- (e) Any areas where material has been stockpiled shall be restored to the satisfaction of the Contract Administrator.

### **E15.5 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 new material supply, recycling of existing material, sub-grade preparation, proper material installation and any associated Site restoration.
- (b) Items of Work
  - (i) Safety Stone Protective Surfacing

## **E16. WOOD FIBRE PROTECTIVE SURFACING**

### **E16.1 Description**

- (a) This specification shall cover the supply and installation of engineered wood fibre protective surfacing within the accessible play area.

### **E16.2 Materials**

- (a) Wood Fibre product shall be either Zeager Woodcarpet or Fibar FibarSystem 200 or 300 products or substitute acceptable to Contract Administrator.
  - (i) Contact for Woodcarpet:  
Zeagar Bros. Inc.  
4000 East Harrisburg Pike ·  
Middletown, PA 17057  
USA  
Ph: (1-888) 346-8524 or (717) 944-7481 ·  
Fax (717) 944-7681  
[sales@zeager.com](mailto:sales@zeager.com)
  - (ii) Contact for Fibar System 200 or 300:  
The Fibar Group LLC  
80 Business Park Drive, Suite 300  
Armonk, NY 10504-1705  
USA  
Ph: (800) 342-2721  
Fax: (914) 273-8659  
[info@FibarPlaygrounds.com](mailto:info@FibarPlaygrounds.com)  
Also supplied by:  
Playgrounds-R-Us  
Ph: (204) 632-7000
- (b) Wood Fibre surfacing shall include wood fibre, filter cloth, subsurface drainage system and mats for bottom of slides and under swings.

### **E16.3 Shop Drawings**

- (a) Further to CW 1110, shop drawings shall be submitted to the Contract Administrator showing the materials and methods to be used for the subsurface drainage system, within seven (7) Calendar Days of receipt of a Purchase Order.
- (b) The sump pit shall not be located within the safety zone of any of the play equipment and the size of the play area shall be such that there is a location for the pit.

### **E16.4 Methods**

- (a) Sub grade shall be sloped to drain to the lowest end of the Site. A drainage sump pit shall be installed in a location approved by the Contract Administrator and as per SCD 650.
- (b) Wood Fibre shall be installed within the play area, as defined by the timber edging and the depth determined by the Bidder's proposed design, or as approved, to adequately provide the correct depth based on the most recent CSA safety requirements.
- (c) The installation of the Wood Fibre shall be done immediately after the play equipment has been installed.
- (d) Installation of entire system, including fibre, filter cloth, subsurface drainage and mats shall be done according manufacturer's instructions. Adequate drainage within play equipment area must be ensured as per same.
- (e) Installation shall be done by equipment sized to suit the Work being done and the Wood Fibre shall be spread by hand as necessary in the immediate vicinity of the play equipment

so as not to damage same. The play equipment shall be swept clean to the satisfaction of the Contract Administrator after installation of the Wood Fibre.

#### E16.5 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 supplied for the wood fibre system, sub-grade preparation, drainage sump pit and proper material installation.
- (b) The Bidder **must** indicate for Item 4 on Form B: Prices the required quantity of units, dependant on the submission.
- (c) Items of Work:
  - (i) Wood Fibre Protective Surfacing System c/w Drainage System

### E17. TURF RENOVATION

#### E17.1 General Description

- (a) This specification shall cover the supply and installation of topsoil and sod for the renovation of turf.
- (b) Areas of the park that require turf renovation are shown on the Drawings.
- (c) Other areas requiring turf renovation shall be based on the Bidder's proposed design. Any area that has been excavated for the removal of existing stone protective surfacing and is not being covered by new play area shall be sodded.

#### E17.2 Materials and Methods

- (a) Topsoil: As per CW 3540.
- (b) Sodding
  - (i) As per CW 3510.
  - (ii) Sod shall be mineral base.
- (c) Areas to be sodded shall be excavated and/or filled with clean fill to meet the grades required for the installation of topsoil and sod. Surplus materials shall be removed off-site in a legal manner. The areas to be sodded shall be graded to drain away from play areas.
- (d) Edges are to be cut neatly in straight lines and new sod is to be installed to match the existing grades of the surrounding turf. Positive drainage away from play areas is to be maintained.
- (e) Seams between new and old turf are to be topdressed, seeded and rolled.
- (f) Only those areas shown on the Drawings and approved from the Bidder's proposed design as Turf Renovation shall be paid for under this section. All other Site restoration shall be considered incidental to other Works.

#### E17.3 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.

#### E17.4 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.
- (b) The Bidder **must** indicate for Item 5 on Form B: Prices the required quantity of units, dependant on the submission.
- (c) Items of Work
  - (i) Turf Renovation



## **E18. SITE FURNITURE**

### **E18.1 General Description**

- (a) This specification shall cover the supply and installation of benches complete with granular pads as shown on the Drawings.

### **E18.2 Materials and Method**

- (a) Benches
  - (i) Benches: Tache style composite bench with arms, Detail No. SCD-139 on Drawing RD-L3, 1.8 M length (6'), manufactured by the City of Winnipeg, or substitute acceptable to Contract Administrator.
- (b) Benches are to be purchased from the City and installed according to Drawings and City specifications.
  - (i) Contact:  
Aaron Lennon  
Supervisor of Central Repair/Manufacturing Facility  
Fleet Management Agency Division  
Public Works Department  
215 Tecumseh St  
Winnipeg. MB R3E 3S4  
Telephone No.: (204) 986-5505
- (c) Granular Pads
  - (i) As shown on SCD-624B Park Path – Crushed Limestone on Drawing RD-L3.
  - (ii) Base: 150 mm depth of 19 mm down crushed limestone compacted in two layers over compacted sub-grade.
  - (iii) Top: 50 mm of 6 mm down crushed limestone, compacted.
- (d) 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.

### **E18.3 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. Granular pads, Site restoration work and required foundations shall be considered incidental to the Work.
- (b) Items of Work:
  - (i) Benches c/w Granular Pads

## **E19. FOUNDATIONS**

**E19.1** 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 – Concrete Underground Structures and Works, is to be utilized in the installation of the concrete works for all below ground components.

**E19.2** 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 20 mm, nominal;
- (d) slump 80 ±20 mm;
- (e) maximum water/cement ratio 0.49.

### E19.3 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) All concrete footings for play equipment shall be a minimum of 900mm depth or in accordance with manufacturer's specifications, whichever is greater.
- (d) Work under this section is considered incidental to the installation of play equipment and site furniture.

## PLAY EQUIPMENT

### E20. GENERAL COMMENTS

- E20.1 This specification shall cover the supply and installation of the Play Equipment as listed below and specified herein.
- E20.2 Further to B16.7.1(b)(viii) which reads "uniqueness of components as compared to similar playgrounds components within walking distance (400m) of the park", the play equipment within walking distance (400m) to Roy Davis Park are located at:
  - (a) River Elm School – 500 Riverton
  - (b) Union Tot Lot
- E20.3 The Contractor shall furnish all labour, materials, equipment and services necessary to complete the Work according to the drawings and specifications.
- E20.4 The Contractor shall obtain all approvals including the requisite Development Permit.
- E20.5 The Contractor shall be responsible for the layout of all play equipment and thus the extent of the safety surfacing required to comply with CSA standards.
- E20.6 Shop Drawings
  - (a) Further to D11 and CW 1110, shop drawings shall be submitted to the Contract Administrator for all the play equipment specified in this Section, within five (5) Calendar Days of receipt of a Purchase Order.
  - (b) The plan and layout shall be in AutoCAD .dwg format or Vectorworks format.
  - (c) 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
    - (iv) Location of drainage sump pit for the wood fibre protective surfacing.
- E20.7 Accessible Play Area:
  - (a) Play area to have wood fibre protective surfacing as specified in E16.
  - (b) Play area is to include one (1) accessible playstructure:
    - (i) The playstructure shall be divided into two areas, one of which is composed of junior play components designed for children ages 2-5 and the other composed of senior play components designed for children ages 5-12;
    - (ii) The playstructure is to include accessible components or equipment to meet the City of Winnipeg Accessibility Design Standards - may include transfer platforms as well as ground-level equipment;
    - (iii) All decks shall be accessed by a minimum of one "easy" route.

- (iv) Minimum one (1) slide per age group and at least one (1) must be metal;
  - (v) Minimum one (1) moving/spinning component of the type that both hands and feet are in contact with the component, designed for children ages 5-12;
  - (vi) Minimum one (1) climber that provides a significantly different play experience such as a climbing rock, net structure or similar, designed for children ages 5-12;
  - (vii) Areas on and under the structure for social/creative/imaginative play;
  - (viii) To include other play components such as overhead events and bridges as budget and space allow.
- (c) Play area is to include a minimum of two (2) independent play components:
- (i) Play components to be designed for children ages 2-5;
  - (ii) Play components are to be motion components such as spring toys, seesaws, spinners or similar;
  - (iii) Independent accessible play panels and other independent components for children ages 5-12 may also be included but are to be in addition to the above motion components.
- (d) The price for the playstructure and the independent components shall be separate from the other play equipment on Form B: Prices.

#### E20.8 Swings

- (a) Swings are to be located as shown on the Drawings and are to be as specified in E21.
- (b) The Contractor shall be responsible for the final layout and the extent and depth of the protective surfacing required to comply with CSA standards.
- (c) The price for the swings shall be separate from the other play equipment on Form B: Prices.

#### E20.9 Colour:

- (a) 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.
- (b) All play equipment in the park shall be of a coordinating colour scheme.

#### E20.10 Components which are unacceptable are the following:

- (a) Wooden structures;
- (b) Tube (enclosed) slides and crawl tubes;
- (c) Play panels with many small moving parts;
- (d) Cable rides;
- (e) Sand diggers;
- (f) Merry-go-rounds;
- (g) Tire Swings;
- (h) Talk tubes;
- (i) Binoculars / telescopes;
- (j) Barrel rollers; and
- (k) Large number of hollow plastic components.

### **E21. ACCESSIBLE PLAYSTRUCTURE**

- E21.1 This specification shall cover the supply and installation of the accessible playstructure as per Bidder's proposed design.

## E21.2 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) Decks

- (i) All decks shall be manufactured from vinyl-coated, perforated steel.
- (ii) Increments between deck heights shall be a min. 200 mm (8") and max. 300 mm (12") unless connected by a climbing component.

### (c) 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.

### (d) 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.

### (e) Hardware

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

### (f) Poly Components

- (i) Poly components such as play panels and handloops shall be fabricated from compression moulded solid colour, U.V. stabilized, high-density polyethylene.

### (g) Slides

- (i) Stainless steel is preferred for slide beds, although a plastic slide may be used if there is a stainless steel slide also on the Site. North orientation is preferred for all slides.
- (ii) Poly slides that are costly and /or difficult to replace shall not be acceptable.
- (iii) Poly components such as slides and hoods shall be fabricated from U.V. stabilized, rotationally moulded linear low-density polyethylene.
- (iv) Steel slides are to be 16-gauge 304 stainless steel.

### (h) The playstructure shall have kick plates and hand loops as required to meet the most recent Canadian Standards Association Standards.

## E21.3 If applicable to the Bidder's design submission, the following specifications shall apply:

### (a) Cable Net 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.

- (b) Rock Climbers
  - (i) The rock climber shall be manufactured from Glass Fibre Reinforced Concrete (GFRC) and made to look like a real rock.
  - (ii) If attached to the playstructure, the rock must be designed to for such purpose.
- (c) Roof
  - (i) The roof shall be manufactured form 14-guage steel with laser-cut holes.
  - (ii) It shall be finished 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.

#### E21.4 Installation

- (a) Playstructures shall be installed as per the Canadian Standards Association Standard. All posts and other vertical items shall be true to vertical. All decks, if so designed, shall be level. For foundations refer to Clause E19.
- (b) The playstructure shall be installed by factory certified installers only and to manufacturer's specifications.
- (c) Installation of the playstructure shall be coordinated with associated Site development Work. The playstructures shall be secured and rendered unusable until protective surfacing is in place.

#### E21.5 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) Accessible Playstructure

### **E22. INDEPENDENT PLAY COMPONENTS**

#### E22.1 General Description

- (a) This specification shall cover the supply and installation of independent play equipment as per Bidder's proposed design.

#### E22.2 Materials

- (a) All materials shall be structurally sound and suitable for safe play. Durability shall be ensured on all parts and materials.
- (b) Spring toys and see saws shall be as follows:
  - (i) The body, if poly, 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.
  - (ii) The body, if metal, shall be fabricated from galvanized steel tubing with a baked-on TGIC polyester powder coating.
  - (iii) Hollow plastic and cast aluminum spring toys are not acceptable.
- (c) Finishes
  - (i) Finishes shall meet or exceed ASTM standards for hardness, adhesion, impact and salt spray resistance. All fabrication cuts, drill holes and weld joints shall be sprayed with a corrosion resistant coating prior to powder coating.
- (d) 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.

### E22.3 Installation

- (a) All play equipment locations are to be approved by the Contract Administrator prior to installation.
- (b) All play equipment shall be installed as per the Canadian Standards Association Guidelines. Refer to Clause E11;
- (c) All play equipment shall be installed by factory certified installers only and to manufacturer's specifications. For foundations refer to Clause E19.

### E22.4 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) Independent Play Equipment

## E23. SWINGS

### E23.1 General Description

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

### E23.2 Product

- (a) Swings: Tri-pod Leg, Three Bay, Heavy Duty Swing Frame, 3.0 m (10') high, complete with four (4) slash-proof rubber belt seats, two (2) slash-proof rubber enclosed infant seats, heavy duty chain, swing hangers and hammer locks.

### E23.3 Materials – Swing Frame

- (a) Topbeam
  - (i) All topbeams shall be fabricated from min. 90mm (3 1/2") O.D. 7 gauge, RS40 galvanized steel pipe or 60mm (2 3/8") 5 gauge, RS40 galvanized steel pipe with anti-wrap swings. All fabrication cuts, drill holes and weld joints shall be sprayed with a corrosion resistant coating.
- (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.
- (e) Colour
  - (i) Any coloured portion of the swing frame shall match the playstructure or as directed by the Contract Administrator.

### E23.4 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 slash proof. 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 slash proof. 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.

#### E23.5 Installation

- (a) Swings shall be installed as per the Canadian Standards Association Guidelines. Refer to Clause E11. For foundations refer to Clause E19.
- (b) Installation of swings shall be coordinated with associated Site development Work. Swings shall be secured and rendered unusable until protective surfacing is in place.
- (c) Swings shall be installed by factory certified installers only and to manufacturer's specifications.

#### E23.6 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.
- (b) Items of Work:
  - (i) Swings