



**THE CITY OF WINNIPEG**

# **REQUEST FOR PROPOSAL**

**RFP NO. 356-2017**

**MAGAS MEMORIAL PARK PLAYGROUND REDEVELOPMENT**

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## **PART B - BIDDING PROCEDURES**

### **B1. CONTRACT TITLE**

B1.1 MAGAS MEMORIAL PARK PLAYGROUND REDEVELOPMENT

### **B2. SUBMISSION DEADLINE**

B2.1 The Submission Deadline is 12:00 noon Winnipeg time, June 20th, 2017.

B2.2 Proposals 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 Proponent may view the Site without making an appointment.

### **B4. ENQUIRIES**

B4.1 All enquiries shall be directed to the Contract Administrator identified in D4.1.

B4.2 If the Proponent finds errors, discrepancies or omissions in the proposal, or is unsure of the meaning or intent of any provision therein, the Proponent shall promptly notify the Contract Administrator of the error, discrepancy or omission at least five (5) Business Days prior to the Submission Deadline.

B4.3 If the Proponent is unsure of the meaning or intent of any provision therein, the Proponent should request clarification as to the meaning or intent prior to the Submission Deadline.

B4.4 Responses to enquiries which, in the sole judgment of the Contract Administrator, require a correction to or a clarification of the Request for Proposal will be provided by the Contract Administrator to all Proponents by issuing an addendum.

B4.5 Responses to enquiries which, in the sole judgment of the Contract Administrator, do not require a correction to or a clarification of the Request for Proposal will be provided by the Contract Administrator only to the Proponent who made the enquiry.

B4.6 The Proponent 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. CONFIDENTIALITY**

B5.1 Information provided to a Proponent by the City or acquired by a Proponent by way of further enquiries or through investigation is confidential. Such information shall not be used or disclosed in any way without the prior written authorization of the Contract Administrator. The use and disclosure of the confidential information shall not apply to information which:

- (a) was known to the Proponent before receipt hereof; or
- (b) becomes publicly known other than through the Proponent; or
- (c) is disclosed pursuant to the requirements of a governmental authority or judicial order.

B5.2 The Proponent shall not make any statement of fact or opinion regarding any aspect of the Bid Opportunity to the media or any member of the public without the prior written authorization of the Contract Administrator.

**B6. ADDENDA**

- B6.1 The Contract Administrator may, at any time prior to the Submission Deadline, issue addenda correcting errors, discrepancies or omissions in the Request for Proposal, or clarifying the meaning or intent of any provision therein.
- B6.2 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.
- B6.2.1 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/bidopp.asp>.
- B6.2.2 The Proponent is responsible for ensuring that he/she has received all addenda and is advised to check the Materials Management Division website for addenda regularly and shortly before the Submission Deadline, as may be amended by addendum.
- B6.3 The Proponent shall acknowledge receipt of each addendum in Paragraph 9 of Form A: Proposal. Failure to acknowledge receipt of an addendum may render a Proposal non-responsive.

**B7. SUBSTITUTES**

- B7.1 The Work is based on the Plant, Materials and methods specified in the Request for Proposal.
- B7.2 Substitutions shall not be allowed unless application has been made to and prior approval has been granted by the Contract Administrator in writing.
- B7.3 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.
- B7.4 The Proponent 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.
- B7.5 The Contract Administrator, after assessing the request for approval of a substitute, may in his/her sole discretion grant approval for the use of a substitute as an "approved equal" or as an "approved alternative", or may refuse to grant approval of the substitute.
- B7.6 The Contract Administrator will provide a response in writing, at least two (2) Business Days prior to the Submission Deadline, to the Proponent who requested approval of the substitute.

B7.6.1 The Contract Administrator will issue an Addendum, disclosing the approved materials, equipment, methods and products to all potential Proponents. The Proponent requesting and obtaining the approval of a substitute shall be responsible for disseminating information regarding the approval to any person or persons he/she wishes to inform.

B7.7 If the Contract Administrator approves a substitute as an "approved equal", any Proponent may use the approved equal in place of the specified item.

B7.8 If the Contract Administrator approves a substitute as an "approved alternative", any Proponent bidding that approved alternative may base his/her Total Bid Price upon the specified item but may also indicate an alternative price based upon the approved alternative. Such alternatives will be evaluated in accordance with B20.

B7.9 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.

## B8. PROPOSAL SUBMISSION

B8.1 The Proposal shall consist of the following components:

- (a) Form A: Proposal;
- (b) Form B: Prices;

B8.2 The Proposal should also consist of the following components:

- (a) Design Drawings in accordance with B11;
- (b) Component Description, in accordance with B12

B8.3 Further to B8.1, all components of the Proposal shall be fully completed or provided in the order indicated, and submitted by the Proponent no later than the Submission Deadline, with all required entries made clearly and completely.

B8.4 Further to B8.2, all components of the Proposal should be fully completed or provided in the order indicated, and submitted by the Proponent no later than the Submission Deadline, with all required entries made clearly and completely.

B8.5 The Bid Submission may be submitted by mail, courier or personal delivery, or by facsimile transmission.

B8.6 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 Proponent'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

B8.6.1 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 Proponent's name and address, and an indication that the contents are part of the Proponent's Bid Submission.

B8.7 Proponents are advised that inclusion of terms and conditions inconsistent with the Request for Proposal, will be evaluated in accordance with B20.1(a).

B8.8 If the Bid Submission is submitted by facsimile transmission, it shall be submitted to 204 949-1178.

B8.8.1 The Proponent is advised that the City cannot take responsibility for the availability of the facsimile machine at any time.

B8.8.2 Bids submitted by internet electronic mail (e-mail) will not be accepted.

**B9. PROPOSAL (SECTION A)**

B9.1 The Proponent shall complete Form A: Proposal, making all required entries.

B9.2 Paragraph 2 of Form A: Proposal shall be completed in accordance with the following requirements:

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

B9.2.1 If a Proposal is submitted jointly by two or more persons, each and all such persons shall identify themselves in accordance with B9.2.

B9.3 In Paragraph 3 of Form A: Proposal, the Proponent shall identify a contact person who is authorized to represent the Proponent for purposes of the Proposal.

B9.4 Paragraph 11 of Form A: Proposal shall be signed in accordance with the following requirements:

- (a) if the Proponent is a sole proprietor carrying on business in his/her own name, it shall be signed by the Proponent;
- (b) if the Proponent is a partnership, it shall be signed by the partner or partners who have authority to sign for the partnership;
- (c) if the Proponent is a corporation, it shall be signed by its duly authorized officer or officers and the corporate seal, if the corporation has one, should be affixed;
- (d) if the Proponent is carrying on business under a name other than its 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.

B9.4.1 The name and official capacity of all individuals signing Form A: Proposal should be printed below such signatures.

B9.5 If a Proposal is submitted jointly by two or more persons, the word "Proponent" shall mean each and all such persons, and the undertakings, covenants and obligations of such joint Proponents in the Proposal and the Contract, when awarded, shall be both joint and several.

**B10. PRICES**

B10.1 The Proponent shall state a price in Canadian funds for each item of the Work identified on Form B: Prices.

B10.2 The quantities listed on Form B: Prices are to be considered approximate only. The City will use said quantities for the purpose of comparing Proposals.

B10.3 The quantities for which payment will be made to the Contractor are to be determined by the Work actually performed and completed by the Contractor, to be measured as specified in the applicable Specifications.

B10.4 Payments to Non-Resident Contractors are subject to Non-Resident Withholding Tax pursuant to the Income Tax Act (Canada).

**B11. DESIGN DRAWINGS**

B11.1 The Proponent shall submit drawings that illustrate the proposed design and play equipment, such as plan, perspective and any other submissions to illustrate the design intent. Included in this shall be a plan showing the proposed play equipment and associated safety zones within the proposed play area and site, drawn to scale. Additional drawings may be requested prior to award for more detailed information.

**B12. COMPONENT DESCRIPTIONS**

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

**B13. DISCLOSURE**

B13.1 Various Persons provided information or services with respect to this Work. In the City's opinion, this relationship or association does not create a conflict of interest because of this full disclosure. Where applicable, additional material available as a result of contact with these Persons is listed below.

B13.2 The Persons are:

- (a) None to report.

**B14. QUALIFICATION**

B14.1 The Proponent 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, or if the Proponent does not carry on business in Manitoba, in the jurisdiction where the Proponent does carry on business; 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.

B14.2 The Proponent 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>.

B14.3 The Proponent 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);

B14.4 The Proponent 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 Proponent and of any proposed Subcontractor.



- B14.5 The Proponent shall provide, on the request of the Contract Administrator, full access to any of the Proponent's equipment and facilities to confirm, to the Contract Administrator's satisfaction, that the Proponent's equipment and facilities are adequate to perform the Work.
- B14.6 Further to B14.3(c), the Proponent shall, within five (5) Business Days of a request by the Contract Administrator, provide proof satisfactory to the Contract Administrator that the Proponent /Subcontractor has a workplace safety and health program meeting the requirements of The Workplace Safety and Health Act (Manitoba), by providing:
- (a) Written confirmation of a safety and health certification meeting SAFE Work Manitoba's SAFE Work Certified Standard (e.g., COR™ and SECOR™) or
    - (i) a copy of their valid Manitoba COR certificate and Letter of Good Standing (or Manitoba equivalency) as issued under the Certificate of Recognition (COR) Program administered by the Construction Safety Association of Manitoba or by the Manitoba Heavy Construction Association's WORKSAFELY™ COR™ Program; or
    - (ii) a copy of their valid Manitoba SECOR™ certificate and Letter of Good Standing (or Manitoba equivalency) as issued under the Small Employer Certificate of Recognition Program (SECOR™) administered by the Construction Safety Association of Manitoba or by the Manitoba Heavy Construction Association's WORKSAFELY™ COR™ Program or
  - (b) a report or letter to that effect from an independent reviewer acceptable to the City. (A list of acceptable reviewers and the review template are available on the Information Connection page at The City of Winnipeg, Corporate Finance, Materials Management Division website at <http://www.winnipeg.ca/matmgt/>).
- B14.7 The Proponent 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 Proponent and of any proposed Subcontractor.
- B14.8 The Proponent shall provide, on the request of the Contract Administrator, full access to any of the Proponent's equipment and facilities to confirm, to the Contract Administrator's satisfaction, that the Proponent's equipment and facilities are adequate to perform the Work.
- B15. OPENING OF PROPOSALS AND RELEASE OF INFORMATION**
- B15.1 Proposals will not be opened publicly.
- B15.2 After award of Contract, the names of the Proponents and the Contract amount of the successful Proponent 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/> .
- B15.3 To the extent permitted, the City shall treat all Proposal Submissions as confidential, however the Proponent is advised that any information contained in any Submission may be released if required by The Freedom of Information and Protection of Privacy Act (Manitoba), by other authorities having jurisdiction, or by law or by City policy or procedures (which may include access by members of City Council).
- B15.4 Following the award of Contract, a Proponent will be provided with information related to the evaluation of his/her submission upon written request to the Contract Administrator.
- B16. IRREVOCABLE OFFER**
- B16.1 The Proposal(s) submitted by the Proponent shall be irrevocable for the time period specified in Paragraph 10 of Form A: Proposal.
- B16.2 The acceptance by the City of any Proposal shall not release the Proposals of the other responsive Proponents and these Proponents shall be bound by their offers on such Work until a Contract for the Work has been duly executed and the performance security furnished as

herein provided, but any offer shall be deemed to have lapsed unless accepted within the time period specified in Paragraph 10 of Form A: Proposal.

**B17. WITHDRAWAL OF OFFERS**

- B17.1 A Proponent may withdraw his/her Proposal without penalty by giving written notice to the Manager of Materials at any time prior to the Submission Deadline.
  - B17.1.1 Notwithstanding C23.3, the time and date of receipt of any notice withdrawing a Proposal shall be the time and date of receipt as determined by the Manager of Materials.
  - B17.1.2 The City will assume that any one of the contact persons named in Paragraph 3 of Form A: Proposal or the Proponent's authorized representatives named in Paragraph 11 of Form A: Proposal, and only such person, has authority to give notice of withdrawal.
  - B17.1.3 If a Proponent gives notice of withdrawal prior to the Submission Deadline, the Manager of Materials will:
    - (a) retain the Proposal until after the Submission Deadline has elapsed;
    - (b) open the Proposal to identify the contact person named in Paragraph 3 of Form A: Proposal and the Proponent's authorized representatives named in Paragraph 11 of Form A: Proposal; and
    - (c) if the notice has been given by any one of the persons specified in B17.1.3(b), declare the Proposal withdrawn.
- B17.2 A Proponent who withdraws his/her Proposal after the Submission Deadline but before his/her offer has been released or has lapsed as provided for in B16.2 shall be liable for such damages as are imposed upon the Proponent 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.

**B18. INTERVIEWS**

- B18.1 The Contract Administrator may, in his/her sole discretion, interview Proponents during the evaluation process.

**B19. NEGOTIATIONS**

- B19.1 The City reserves the right to negotiate details of the Contract with any Proponent. Proponents are advised to present their best offer, not a starting point for negotiations in their Proposal Submission.
- B19.2 The City may negotiate with the Proponents submitting, in the City's opinion, the most advantageous Proposals. The City may enter into negotiations with one or more Proponents without being obligated to offer the same opportunity to any other Proponents. Negotiations may be concurrent and will involve each Proponent individually. The City shall incur no liability to any Proponent as a result of such negotiations.
- B19.3 If, in the course of negotiations pursuant to B19.2 or otherwise, the Proponent amends or modifies a Proposal after the Submission Deadline, the City may consider the amended Proposal as an alternative to the Proposal already submitted without releasing the Proponent from the Proposal as originally submitted.

**B20. EVALUATION OF PROPOSALS**

- B20.1 Award of the Contract shall be based on the following evaluation criteria:
  - (a) compliance by the Proponent with the requirements of the Request for Proposal or acceptable deviation therefrom: .....**(pass/fail)**
  - (b) qualifications of the Proponent and the Subconsultants, if any, pursuant to B14: **(pass/fail)**

- (c) Total Bid Price; .....**10 points**  
(d) Design Drawings/Component Descriptions; .....**90 points**

B20.2 Further to B20.1(a), the Award Authority may reject a Proposal as being non-responsive if the Proposal 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 Proposal, or waive technical requirements or minor informalities or irregularities if the interests of the City so require.

B20.3 Further to B20.1(b), the Award Authority shall reject any Proposal submitted by a Proponent who does not demonstrate, in its Proposal or in other information required to be submitted, that it is responsible and qualified.

B20.4 Further to B20.1(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.

B20.4.1 Further to B20.1(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.

B20.4.2 Further to B20.1(c), the Award Authority may reject a Bid as being non-responsive if it exceeds the budget as shown on Form B: Prices.

B20.4.3 The Total Bid Price shall be evaluated with a weighing of 10 points out of a total of 100 possible points. As such, the lowest Proponent shall receive the full 10 points, and the second lowest Proponent and subsequent Proponents shall be pro-rated accordingly.

B20.5 Further to B20.1(d) Design Drawings/Component Descriptions shall be evaluated with a weighing of 90 points out of a total of 100 possible points as per B11 and B12.

B20.5.1 The Design shall be evaluated on the following criteria:

(a) compliance with CSA Standards (**pass/fail**);

(b) play value (**maximum 44 points**):

(i) **10 points** – Gross Motor Play Experience(s) (Climbing, balancing, etc.);

(ii) **9 points** – Motion Component(s);

(iii) **8 points** - Provides opportunities for appropriate social / interpersonal interaction and co-operative play;

(iv) **8 points** – Imaginative/ Cognitive Play Component(s), including fine motor skills;

(v) **5 points** – Sliding Component(s) for 2-5year old and 5-12 year old;

(vi) **4 points** - Variety of play Components.

(c) Designed for inclusive play using Universal Design principles – Accessible Play Area only (**maximum 15 points**) :

(i) Complies with section 2.3.5 of the 2010 City of Winnipeg Accessibility Design Standards ( [www.winnipeg.ca/ppd/Universal\\_Design.stm](http://www.winnipeg.ca/ppd/Universal_Design.stm) )(**pass/fail**);

(ii) **6 points** – Provision of tactile and auditory play experiences;

(iii) **6 points** – Layout of the play area for integration of wheelchair accessible components to promote inclusive play;

(iv) **3 points** – Layout of the play area for persons with visual impairment.

(d) Layout/circulation (**maximum 21 points**):

(i) **6 points** – Flow and relationship between play area activities;

(ii) **4 points** - Layout/orientation of components on Site and in relation to seating areas;

(iii) **4 points** - Orientation to provide good visibility to play area from adjacent road, backlane and parking lot;

- (iv) **4 points** – Efficient use of space within and between elements;
    - (v) **3 points** - Slide orientation – north or east.
  - (e) Durability (**maximum 10 points**):
    - (i) **10 points** - Use of durable/tamper-resistant materials, low maintenance finishes and connector systems and ease of repair/replacement of the products used with the playground area.
- B20.6 Further to B20.5.1(a), if Contractor states play equipment components are compliant with CSA Standards which 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.
- B21. **AWARD OF CONTRACT**
- B21.1 The City will give notice of the award of the Contract, or will give notice that no award will be made.
- B21.2 The City will have no obligation to award a Contract to a Proponent, even though one or all of the Proponents are determined to be responsible and qualified, and the Proposals are determined to be responsive.
- B21.2.1 Without limiting the generality of B21.2, 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 Proposal 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.
- B21.3 Where an award of Contract is made by the City, the award shall be made to the responsible and qualified Proponent submitting the most advantageous offer.
- B21.3.1 Following the award of contract, a Proponent will be provided with information related to the evaluation of his/her Proposal upon written request to the Contract Administrator.
- B21.4 The City may, at its discretion, award the Contract in phases.
- B21.4.1 Notwithstanding C4, the City may issue a Purchase Order to the successful Bidder in lieu of the execution of a Contract.
- B21.4.2 The Contract documents as defined in C1.1 in their entirety shall be deemed to be incorporated in and to form a part of the Purchase Order notwithstanding that they are 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 Request for Proposal 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 major components of the Work are as follows:

- (a) Removals;
- (b) Excavation and grading;
- (c) Sub-surface drainage;
- (d) Reinforced CIP concrete pavement;
- (e) Timber edging;
- (f) Play equipment and swings;
- (g) Engineered wood fibre safety surfacing;
- (h) Perennial beds;
- (i) Tree and perennial planting with wood chip mulch;
- (j) Tyndall stone plinth;
- (k) Timber fencing and gate;
- (l) Trees;
- (m) Soil and Sod, and;
- (n) Site furniture.

#### **D3. DEFINITIONS**

D3.1 When used in this Request for Proposal:

- (a) "CW" means City of Winnipeg Standard Construction Specification (current version); and
- (b) "SCD" means City of Winnipeg Standard Construction Detail (current version).

#### **D4. CONTRACT ADMINISTRATOR**

D4.1 The Contract Administrator is:  
Ian Legge  
Urban Designer

City of Winnipeg  
Urban Design Division  
Planning, Property and Development Department  
Telephone No. 204-986-5597  
Email address: [ilegge@winnipeg.ca](mailto:ilegge@winnipeg.ca)

D4.2 At the pre-commencement meeting, the Contract Administrator will identify additional personnel representing the Contract Administrator and their respective roles and responsibilities for the Work.

D4.3 Bids Submissions must be submitted to the address in B8.

**D5. CONTRACTOR'S SUPERVISOR**

D5.1 Before commencement of Work, the Contractor shall identify his/her designated supervisor and any additional personnel representing the Contractor and their respective roles and responsibilities for the Work.

D5.1.1 Further to C5, Contract Administrator may give instructions or orders to the Contractor's supervisor and such instructions or orders shall be deemed to have been given to the Contractor.

**D6. OWNERSHIP OF INFORMATION, CONFIDENTIALITY AND NON DISCLOSURE**

D6.1 The Contract, all deliverables produced or developed, and information provided to or acquired by the Contractor are the property of the City and shall not be appropriated for the Contractors own use, or for the use of any third party.

D6.2 The Contractor shall not make any public announcements or press releases regarding the Contract, without the prior written authorization of the Contract Administrator.

D6.3 The following shall be confidential and shall not be disclosed by the Contractor to the media or any member of the public without the prior written authorization of the Contract Administrator;

- (a) information provided to the Contractor by the City or acquired by the Contractor during the course of the Work;
- (b) the Contract, all deliverables produced or developed; and
- (c) any statement of fact or opinion regarding any aspect of the Contract.

D6.4 A Contractor who violates any provision of D5 may be determined to be in breach of Contract.

**D7. NOTICES**

D7.1 Notwithstanding C23.2.2, all notices of appeal to the Chief Administrative Officer shall be sent to the attention of the Chief Financial Officer at the following facsimile number:

The City of Winnipeg  
Chief Financial Officer  
Facsimile No.: 204 949-1174

D7.2 **Bids Submissions must not be submitted to this facsimile number. Bids must be submitted in accordance with B8.**

**SUBMISSIONS**

**D8. AUTHORITY TO CARRY ON BUSINESS**

D8.1 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.

**D9. SAFE WORK PLAN**

D9.1 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.

D9.2 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> .

**D10. INSURANCE**

D10.1 The Contractor shall provide and maintain the following insurance coverage:

- (a) commercial general liability insurance, in the amount of at least two million dollars (\$2,000,000.00) inclusive, with The City of Winnipeg added as an additional insured; such liability policy to also contain a cross-liability clause, non-owned automobile liability and products and completed operations cover, to remain in place at all times during the performance of the Work;
- (b) if applicable, Automobile Liability Insurance covering all motor vehicles, owned and operated and used or to be used by the Contractor directly or indirectly in the performance of the Work. The Limit of Liability shall not be less than \$2,000,000 inclusive for loss or damage including personal injuries and death resulting from any one accident or occurrence;
- (c) all risks installation floater, carrying adequate limits to covers all machinery, equipment, supplies and/or materials intended to enter into and form part of any installation.

D10.2 Deductibles shall be borne by the Contractor.

D10.3 The Contractor shall provide the Contract Administrator with a certificate(s) of insurance, **referencing the Bid Opportunity number and/or the Scope of Work D2 and Specifications PART E - to be performed**, 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 the date specified in C4.1 for the return of the executed Contract.

D10.4 The Contractor shall not cancel, materially alter, or cause the policy to lapse without providing at least thirty (30) Calendar Days prior written notice to the Contract Administrator.

D10.5 The City shall have the right to alter the limits and/or coverages as reasonably required from time to time during the continuance of this agreement.

**D11. PERFORMANCE SECURITY**

D11.1 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.

D11.1.1 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.

D11.2 The Contractor shall provide the City Solicitor with the required performance security within seven (7) Calendar Days of notification of the award and prior to the commencement of any Work on the Site.



**D12. SUBCONTRACTOR LIST**

D12.1 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 the date specified in C4.1 for the return of the executed Contract.

**D13. DETAILED WORK SCHEDULE**

D13.1 The Contractor shall provide the Contract Administrator with a detailed work schedule at least two (2) Business Days prior to the commencement of any Work on the Site.

D13.2 Detailed Work Schedule shall consist of the following dates:

- (a) Start date;
- (b) Removals;
- (c) Excavation and layout for play area and pavement;
- (d) Rough Grading;
- (e) Installation of sub-surface drainage;
- (f) Installation of concrete pavement;
- (g) Installation of play edging;
- (h) Installation of play equipment;
- (i) Installation of safety surfacing;
- (j) Installation of fencing and gate;
- (k) Installation of tyndall stone plinth;
- (l) Installation of perennial beds and grasses;
- (m) Installation of trees;
- (n) Installation of soil and sod;
- (o) Installation of site furniture; and
- (p) Expected completion.

D13.3 Other milestone dates appropriate to this project should also be included to make the Contract Administrator aware of them.

**SCHEDULE OF WORK**

**D14. COMMENCEMENT**

D14.1 The Contractor shall not commence any Work until he/she is in receipt of a notice of award from the City authorizing the commencement of the Work.

D14.2 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 D8;
  - (ii) evidence of the workers compensation coverage specified in C6.15;
  - (iii) the Safe Work Plan specified in D9;
  - (iv) evidence of the insurance specified in D10;
  - (v) the performance security specified in D11;
  - (vi) the Subcontractor list specified in D12; and
  - (vii) the detailed work schedule specified in D13.

- (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.

D14.3 The Contractor shall order play equipment and submit this information to the Contract Administrator within seven (7) Calendar Days of receipt of the Purchase Order.

D14.4 The Contractor shall commence the Work on the Site within forty two (42) Calendar Days of receipt of the Purchase Order.

**D15. SUBSTANTIAL PERFORMANCE**

D15.1 The Contractor shall achieve Substantial Performance within twenty (20) consecutive working days.

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 re-inspected.

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-five (25) working days.

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 Substantial Performance in accordance with the Contract by the day fixed herein for Substantial Performance, the Contractor shall pay the City five hundred dollars (\$500.00) per Working Day for each and every Working Day following the day fixed herein for Total Performance during which such failure continues.

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) Trees and Perennial Grasses as specified in E19; and
- (b) Topsoil and sod as specified in E20.

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 Regular weekly job meetings will be held at the Site. These meetings shall be attended by a minimum of one representative of the Contract Administrator, one representative of the City and one representative of the Contractor. Each representative shall be a responsible person capable of expressing the position of the Contract Administrator, the City and the Contractor respectively on any matter discussed at the meeting including the Work schedule and the need to make any revisions to the Work schedule. The progress of the Work will be reviewed at each of these meetings.

D19.2 The Contract Administrator reserves the right to cancel any job meeting or call additional job meetings whenever he/she 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).

### **D21. THE WORKPLACE SAFETY AND HEALTH ACT (MANITOBA) – QUALIFICATIONS**

D21.1 Further to B14.6, the Contractor/Subcontractor must, throughout the term of the Contract, have a Workplace Safety and Health Program meeting the requirements of The Workplace Safety and Health Act (Manitoba). At any time during the term of the Contract, the City may, at its sole discretion and acting reasonably, require updated proof of compliance, as set out in B14.6.

### **D22. SAFETY**

D22.1 Further to C6, the Contractor shall be solely responsible for safety at the Site and for compliance with all laws, rules, regulations and practices required by the applicable safety legislation.

D22.2 The Contractor shall be solely responsible for securing the Site, and any existing facility thereon, and for the proper care and protection of the Work already performed.

D22.3 The Contractor shall do whatever is necessary to ensure that:

- (a) no person, property, right, easement or privilege is injured, damaged or infringed by reason of the Contractor's activities in performing the Work;
- (b) the health and safety of all persons employed in the performance of the Work or otherwise is not endangered by the method or means of its performance;
- (c) adequate medical services are available to all persons employed on the Work and at all times during the performance of the Work;
- (d) adequate sanitation measures are taken and facilities provided with respect to the Work.
- (e) pedestrian and other traffic on any public or private road or waterway is not unduly impeded, interrupted or endangered by the performance or existence of the Work or Plant; and
- (f) fire hazards in or about the Work are eliminated

**D23. SITE CLEANING**

D23.1 The Contractor shall maintain the Site and the Work in a tidy condition and free from the accumulation of waste and debris, other than that caused by the City or by other contractors.

D23.1.1 As the Work progresses, the Contractor shall remove any Plant and Material not required for the performance of the remaining Work. He/she shall also remove waste and debris other than that caused by the City or other contractors, and leave the Site and the Work clean and suitable for occupancy by the City unless otherwise specified.

D23.1.2 Total Performance shall not be considered to have been achieved until the Contractor has cleaned up the Site and has removed all Plant, surplus Material, waste and debris, other than that left by the City or other contractors.

**D24. INSPECTION**

D24.1 Before beginning or resuming operations upon any portion of the Work, the Contractor shall notify the Contract Administrator so as to enable him to arrange for inspection. If the Contractor fails to notify the Contract Administrator, the Contractor shall, if and when required by the Contract Administrator, forthwith take down or expose and redo that portion of the Work required to facilitate inspection. The cost of such taking down or exposure, and redoing, if any, shall be borne by the Contractor.

D24.2 If and when required by the Contract Administrator, the Contractor shall take down or expose forthwith any portion of the Work where the Contract Administrator determines that the Work is not in accordance with the Contract. The cost of such taking down or exposure, and redoing, if any, shall fall upon the City if the taking down or exposure indicates that the portion exposed was properly performed, but if otherwise the cost shall be borne by the Contractor.

**D25. DEFICIENCIES**

D25.1 Further to C11, the Contract Administrator may order the Contractor to alter or improve his methods, to increase or improve his Plant, to furnish additional or more suitable Material, or to employ additional or more qualified labour if, at any time, the Contract Administrator determines that:

- (a) the Work is not being, or will likely not be, performed satisfactorily; or
- (b) progress is not being, or will likely not be, maintained in accordance with the work schedule.

**MEASUREMENT AND PAYMENT**

**D26. PAYMENT**

D26.1 Further to C12, the City may at its option pay the Contractor by direct deposit to the Contractor's banking institution.

**WARRANTY**

**D27. WARRANTY**

D27.1 Warranty is as stated in C13.

**FORM H1: PERFORMANCE BOND**  
(See D11)

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

RFP NO. 356-2017

MAGAS MEMORIAL PARK PLAYGROUND REDEVELOPMENT

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

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

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

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

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

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

\_\_\_\_\_ day of \_\_\_\_\_, 20\_\_\_\_.

**SIGNED AND SEALED**  
in the presence of:

\_\_\_\_\_  
(Witness as to Principal if no seal)

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

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

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

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

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

**FORM H2: IRREVOCABLE STANDBY LETTER OF CREDIT  
(PERFORMANCE SECURITY)**  
(See D11)

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

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

RE: PERFORMANCE SECURITY – RFP NO. 356-2017

MAGAS MEMORIAL PARK PLAYGROUND REDEVELOPMENT

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

\_\_\_\_\_  
(Name of Contractor)

\_\_\_\_\_  
(Address of Contractor)

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

\_\_\_\_\_  
Canadian dollars.

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

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

Partial drawings are permitted.

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

\_\_\_\_\_  
(Address)

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

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

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

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

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

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

This credit is subject to the Uniform Customs and Practice for Documentary Credit (2007 Revision), International Chamber of Commerce Publication Number 600.

\_\_\_\_\_  
(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>
M.100-1	Existing Conditions and Removals
M.100-2	Overall Proposed Plan
M.100-3	Materials Plan
M.100-4	Grading Plan
M.100-5	Fence Details
M.100-6	Fence Details
M.100-7	Gate Details
M.100-8	Custom Memorial Wood Entrance Gates
M.100-9	Details
M.100-10	Layout Plan 1 – Fence Layout
M.100-11	Layout Plan 2 – Layout
SCD-119	Waste Receptacle Side Opening Metal Slat Type (*surface mounted)
SCD-121E	Tache Bench Composite with Arms Surface Mount
SCD-122A	Tache Style Wheelchair Metal Frame Picnic Table
SCD-517	Standard Detail for Tree Planting
SCD-650	Engineered Wood Fibre Safety Surfacing Drainage Diagram
SCD-651A	Double Timber Edging with Cap
SCD-659	Multi-Flow Drainage

#### E2. HAZARDOUS MATERIALS

- E2.1 If asbestos or other hazardous materials are encountered during the Work of the Contract, the Contractor shall stop all work and notify the Contract Administrator immediately. Removal of hazardous materials shall be dealt with by the City and the Contractor shall await further instruction by the Contract Administrator.

#### E3. EXISTING SERVICES AND UTILITIES

- E3.1 No responsibility will be assumed by the City for correctness or completeness of the Drawings, when provided, with respect to the existing utilities, pipes or other objects either underground or on the surface; the City shall not be liable for the incorrectness and inadequacy thereof. It shall be the responsibility of the Contractor to determine the location of all such utilities, pipes and other objects and to make good any damage done to them.

**E4. ACCESS TO SITE**

- E4.1 Access to the Site as required by the Contractor shall be provided and maintained by the Contractor at his/her own expense and approved by the Contract Administrator.
- E4.2 The Contractor's operations shall be limited to the minimum area necessary for undertaking the Work and he/she shall be responsible for all damage resulting from his/her Work on private property.

**E5. PERMITS, NOTICES, LICENSES, CERTIFICATES, LAWS AND RULES**

- E5.1 Further to C6.12, the Contractor shall give all necessary notices, obtain all necessary permits and pay all fees in order that the Work may be carried out. The Contractor shall submit all plans required by any inspection authority and obtain approval of same before proceeding with the Work, and pay any cost attached to the inspection of such plans.
- E5.2 The Contractor shall comply with all laws, ordinances, rules and regulations that would relate to the Work.
- E5.3 All notices, consents, approvals, statements, authorizations, documents or other communications to the City shall be submitted to the Contract Administrator.
- E5.4 All Work shall be performed in compliance with the Manitoba Workplace Health and Safety Act.
- E5.5 All Work shall be performed in compliance with the Manitoba Workplace Health and Safety Fall Protection guidelines.
- E5.6 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.

**E6. DAMAGE TO EXISTING STRUCTURES, TREES AND PROPERTY**

- E6.1 All necessary precautions shall be exercised by the Contractor so as not to remove, disturb, or damage any existing trees, shrubs, sod, pavements, streets, roads, boulevards, poles, hydrants, water pipes, gas pipes, electrical wires, cables, conduits, sewers or other existing facilities and equipment at the Site of the Work. For all damage incurred in the performance of the Work (either directly or indirectly), the Contractor shall either replace and repair such damage, whichever may be deemed necessary in the opinion of, and acceptable to City of Winnipeg Contract Administrator, and the cost of which shall be borne entirely by the Contractor. The Contractor shall also indemnify and save harmless the City from all claims made directly or indirectly against it in respect to any such damage.
- E6.2 The Contractor shall take the following precautionary steps to prevent damage from construction activities to existing park trees within the limits of the construction area:
- (a) The Contractor shall not stockpile materials and soil or park vehicles and equipment within 2.0 metres of trees.
  - (a) Trees identified to be at risk by the Contract Administrator are to be strapped with 25 mm x 100 mm x 2400 mm wood planks, or suitable protection 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), with the outcome read in feet, from the closest edge of the trunk. Where roots must be cut to facilitate excavation, they shall be pruned neatly at the face of excavation.

- (c) Operation of equipment within the drip line of the trees shall be kept to a minimum required to perform the Work required. Equipment shall not be parked, repaired, refuelled; construction materials shall not be stored, and earth materials shall not be stockpiled within the drip lines of trees. The drip line of a tree shall be considered to be the ground surface directly beneath the tips of its outermost branches. The Contractor shall ensure that the operations do not cause flooding or sediment deposition on areas where trees are located.

E6.3 All damage to existing trees caused by the Contractor's activities shall be repaired to the requirements and satisfaction of the Contract Administrator and the City Forester or his/her designate.

E6.4 No separate measurement or payment will be made for the protection of trees.

## E7. PEDESTRIAN SAFETY AND TRAFFIC MANAGEMENT

E7.1 Further to CW 1130, 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/she is working near them. Any damage caused by the negligence of the Contractor or his/her Sub-Contractors to the adjacent Works or properties, shall be promptly repaired by him at his/her own expense, to the satisfaction of the Contract Administrator.

E7.2 Ambulance/ Emergency vehicle access must be maintained at all times.

## E8. PROTECTION OF THE SURVEY INFRASTRUCTURE

E8.1 Notwithstanding clause 4 "Persons and municipalities to protect Outline Monuments"; under [The Surveys Act](#), of Manitoba, the Contractor shall be responsible to protect the Survey Infrastructure from damage as a result of the Work.

E8.2 Further to C6.26 (g), at least 72 hours prior to the commencement of the On-Site Work the Contractor shall contact the City of Winnipeg, Geomatics Services Branch at 204-918-1360 (8:00 am to 4:00 pm Monday to Friday, excluding holidays) to obtain underground clearance. Geomatics Services will locate and mark all known outline survey monuments and geodetic control monuments and confirm the physical condition of those monuments upon completion of construction, at no cost to the Contractor.

E8.3 Where a survey post, bar or control monument lies in the line of the proposed Work and must be disturbed, the Contractor shall provide the Contract Administrator with 48 hours' notice to permit referencing for future replacement, at no cost to the Contractor. Failure to provide the specified notice shall result in the Contractor paying for all costs associated with replacing or relocating the disturbed outline survey monuments and geodetic control monuments. Survey monuments and geodetic control monuments at or adjacent to the Site, not in the line of the proposed construction that are damaged or disturbed by the Contractor shall be replaced or relocated by the City or its agent and all associated costs shall be paid for by the Contractor.

E8.4 An approximate estimate of the cost to restore a legal survey monument is \$1,000 per bar and \$3,000 per control monument. Contractors shall ensure their landscaping and other subcontractors are aware of this clearance procedure and the potential restoration costs. Where possible, amounts owed to the City in accordance with the above will be deducted from payments to be made by the City to the Contractor.

## E9. SITE ENCLOSURES

E9.1 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.

E9.2 Site enclosures shall be considered incidental to the Contract Work.

## E10. SITE RESTORATION

E10.1 Total Performance of the Work shall not be attained until the Contractor has cleaned up the Site and has removed all tools, equipment, waste, debris and surplus foundation earth to the satisfaction of the Contract Administrator. Unless otherwise specified, the Contractor shall restore all areas of the Site beyond the established limit of Work, which have been disturbed by the Contractor's operations to as good as or better than the original condition to the satisfaction of the Contract Administrator. The Contractor shall pay all costs associated with this Work.

## SITE DEVELOPMENT

### E11. REMOVALS

#### E11.1 Description

E11.1.1 In addition to the current version of CW 3550, this Specification shall cover the removal of the existing chain link fence including footing and/or piles.

E11.1.2 The Contractor shall furnish all labour, materials, equipment and services necessary to complete the Work according to the drawings and specifications.

#### E11.2 Construction methods

##### E11.2.1 Removal of Chain Link Fencing

(a) The Contractor shall carefully remove chain link fence designated for removal including any hardware and fasteners holding chain link fence to posts. The Contractor shall remove material from Site.

(b) Holes left by post removal (where new posts are not situated in same location as previous posts) to be filled with existing play sand material w/ 150 mm top coat of soil as per **E22**.

E11.2.2 Cleaning as per **D23**.

#### E11.3 Method of Measurement

E11.3.1 Method of Measurement shall be as follows:

(a) Removals shall be measured on a linear meter basis for:

(i) "Remove Chain Link Fencing" on Form B: Prices

(b) No separate measurement shall be made for filling old post and bollard holes with fill material as this work is incidental.

(c) No separate measurement shall be made for removing concrete piles/footings as this work is incidental herein.

#### E11.4 Basis of Payment

E11.4.1 Basis of Payment shall be as follows:

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

(b) No separate payment shall be made for filling old post and bollard holes with fill material as this work is incidental.

(c) No separate payment shall be made for removing concrete piles/footings as this work is incidental herein.

## E12. EXCAVATION AND GRADING

### E12.1 General Description

E12.1.1 This Specification shall amend and supplement the current version of CW 3110 and CW 3170. It shall cover the excavation and legal disposal of existing safety surfacing plus excavation for new play area, new concrete pavement, new topsoil and sod, and new woodchips as per drawings.

E12.1.2 The Contractor shall furnish all labour, materials, equipment and services necessary to complete the Work according to the drawings and specifications.

E12.1.3 All extraneous materials are to be removed from the Site and disposed of in a safe and legal manner.

- (a) The Work to be done by the Contractor under this specification shall include all labour, equipment and material necessary for and incidental to the satisfactory performance and completion of the Work herein specified.

E12.1.4 Work shall include but not be limited to the following:

- (a) Excavate, add clean fill if necessary, and grade to the limits shown on Drawings to the depths necessary to achieve finish grade for:
- (i) New topsoil and sod over excavated play areas;
    - ◆ Entire depth of existing sand surfacing depth to be excavated. Depth varies.
  - (ii) New Play Area Protective Surfacing;
    - ◆ Depth of excavation varies depending on type of engineered wood fibre safety surfacing, excavate to min. 300 mm – 375 mm as per **E16**.
  - (iii) New CIP concrete pavement;
    - ◆ Excavate to min. 275 mm below finished grade.
    - ◆ Excavate to min. 455mm below finished grade for thickened edge concrete where tyndall block plinth shall rest upon.
  - (iv) Perennial beds;
    - ◆ Excavate to min. 400mm below finished grade. 300mm for planting soil and 100 mm for wood chips.
  - (v) New wood chips mulch;
    - ◆ Excavate to min. 100 mm below finished grade.

### E12.2 Construction Methods

E12.2.1 Excavation includes the removal of items (i.e., sand, earth) as indicated on the Drawings and as directed by the Contract Administrator. Work includes the satisfactory disposal of unsuitable Site material such as clays susceptible to frost-heaving, silts, rock, rubble, rubbish and any surplus suitable Site material.

- (a) Stockpile suitable, approved material on Site for reuse (clean topsoil, clean earth fill,) in a secure location. Remove and dispose of unsuitable material.
- (b) Disposal of material shall be understood to mean the hauling of all unsuitable material from the Site and the unloading in a legal manner acceptable to the Contract Administrator. If arrangements are made in advance excavated material may be disposed of on Site at a location designated by the Contract Administrator.
- (c) Contractor must coordinate with the Contract Administrator to ensure all removals have occurred.
- (d) The depth of excavation in the play area shall directly relate to the requirements of the play equipment proposed in the Bid Submission.

- (e) Excavate to the limits shown and as necessary to achieve finish grades as indicated on the Drawings. Where design grades are not shown, the new surface materials shall be installed to meet flush with surrounding grades, and sloped so as not to impede the existing drainage pattern.
- (f) Where new sod will meet existing, employ a vertical shearing operation, such as using a sharp spade or edger, along the outside edges of the excavation to create a clean and definite line for the new sod to abut flush to.
- (g) Excavation should be coordinated with the installation of play equipment and safety surfacing so as not to leave an open excavation area subject to ponding water.

E12.2.2 Site grading shall be as per Drawings.

- (a) The Contractor must ensure that the rough grading does not create tripping hazards and no areas of standing water remain. The subgrade of all excavated play areas must drain towards the subsurface drainage piping.
- (b) If necessary the Contractor shall import clean fill to achieve grades as per Drawings.
- (c) Backfill shall be placed in a dry, thawed condition and shall be maintained free of moisture or frost.
- (d) In fill areas where the difference between the existing ground elevation and the new finished design elevation is less than 300 mm, the Contractor shall scarify the existing ground to a minimum depth of 50 mm prior to placement of any fill.
- (e) All surplus fill material shall be removed and legally disposed off-site.
- (f) Do not disturb adjacent items designated to remain in place.

E12.2.3 Cleaning as per D23.

E12.3 Method of Measurement and Basis of Payment

E12.3.1 Method of Measurement shall be as follows:

- (a) Excavation shall be measured on a cubic metre basis for:
  - (i) "Excavate and legally dispose of existing play surfacing", and;
  - (ii) "Excavate and legally dispose of earth and sand for new play area" on Form B: Prices.
- (b) Grading shall be measured on a square metre basis for:
  - (i) "Rough grading" on Form B: Prices.
- (c) No measurement will be made for Excavation and Grading of sod areas that are not identified as "Rough Grading" as these items are incidental to **E22**.
- (d) No measurement will be made for Excavation and Grading of the new CIP concrete pavement as these items are incidental to **E14**.
- (e) No measurement will be made for Excavation and Grading for perennial bed area as this item is incidental to **E17**.
- (f) No measurement will be made for Excavation and Grading for wood chip area as this item is incidental to **E18**.
- (g) No measurement will be made for the import of clean fill to achieve rough grading grades as this item is incidental to the work herein.

E12.3.2 Basis of Payment shall be as follows:

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

- (b) No payment will be made for Excavation and Grading of sod areas as these items are incidental to **E22**.
- (c) No payment will be made for Excavation and Grading of the new CIP concrete plaza these items are incidental to **E14**.
- (d) No payment will be made for Excavation and Grading for perennial bed area as this item is incidental to **E17**.
- (e) No payment will be made for Excavation and Grading for wood chip area as this item is incidental to **E18**.
- (f) No payment will be made for the import of clean fill to achieve rough grading grades as this item is incidental to the work herein.

**E13. SUB-SURFACE DRAINAGE**

**E13.1 Description**

- E13.1.1 This Specification shall consist of providing and placing a geocomposite prefabricated subsurface drain system to drain the play area, as shown on drawings and specifications herein.
- E13.1.2 The Contractor shall furnish all labour, materials, equipment and services necessary to complete the Work according to the drawings and specifications.

**E13.2 Material**

- E13.2.1 Drainage pipe will be Multi-Flow or approved substitute in accordance with B7. Drainage pipe will be 150 mm (6"). The manufacturer will size and approve all fittings for use with Multi-Flow or approved substitute drainage pipe.
- E13.2.2 The drain conduit shall be of flexible, prefabricated, rounded rectangular shaped, composite product. The drain conduit will be wrapped with a non-woven geotextile and will be a non-woven needle-punched construction and consist of long-chain polymeric fibres composed of polypropylene, polyethylene or polyamide. The fibres will be oriented into a multi-directional stable network whereby they retain their positions relative with each other and allow the passage of water as specified. The fabric will be free of any chemical treatment or coating, which reduces permeability and will be inert to chemical commonly found in soil. The geotextile will conform to the following minimum average roll values.

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

- E13.2.3 The drainage core shall be made of a high-density polyethylene. The core shall be constructed using interconnected corrugated pipes that define and provide the flow channels and structural integrity of the drain. The geotextile shall function only as a filter. The core of the edge drain shall conform to the following physical property requirements.



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

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

#### E13.2.4 Fittings

- (a) The fittings used with the edge drain shall be of a snap together design. In no case shall any drainage product be joined without the use of the manufacturers connector designed specifically for the purpose. Cleanouts will be provided as indicated on the drawing.

#### E13.2.5 Pipe

- (a) Pipe for drain outlet laterals will be either 75 mm (3") PVC pipe meeting the requirements of ASTM D-2729 or ASTM F-949, or high-density polyethylene pipe meeting the requirements of AASHTO M252.
- (b) A rodent screen made of 7.6 mm (0.3") by 7.6 mm (0.3") square opening size, 1.6 mm (0.063") gauge, stainless steel or galvanized, welded wire mesh shall be installed in each outlet lateral line. When using galvanized welded wire mesh, the rodent screen shall be galvanized after it has been formed to the shape and dimensions shown on the plans or specified by the Contract Administrator.

#### E13.2.6 Backfill for Trenches

- (a) As per current SCD-659.

#### E13.3 Construction Methods

E13.3.1 Subsurface drainage to drain new playground surfacing as described in the plans as as per current SCD-650 and SCD-659.

E13.3.2 Installation of Subdrain is not to proceed until after the excavation/grading has been approved by the Contract Administrator.

E13.3.3 The layout of the subdrain is to be marked on Site and approved by the Contract Administrator prior to trenching.

E13.3.4 Trenches are to be excavated with a trenching machine or by hand. Locations, where the trench crosses existing utilities, irrigation pipes and all other sub-surface pipes or fixtures, are to be excavated by hand. The amount of trench excavated at any time shall not exceed the amount of drain that can be set and backfilled completely prior to the end of that Working Day. Trench width shall be as specified on the Drawings.

E13.3.5 The bottom surface of the trench is to be free of loose particles and is to have the slope minimum of 1.5%. Over excavation in the bottom of the trench shall be backfilled to the proper grade with the excavated material or sand prior to the placement of the drain. Where sand or excavated material is used to fill the trench to the proper elevation that material shall be compacted to 95% of standard proctor density using appropriate means. Where the trench is to pass through an area of existing sod, backfill shall be removed from the Site daily and disposed of legally.

E13.3.6 Multi-Flow drain pipe is to be placed in the trench using a Multi-Flow centering device. Trench is to be backfilled with coarse sand to the surface. Backfill shall be placed in maximum of 450 mm loose lifts. Backfill is to be lightly tamped into place and watered.

- E13.3.7 Fittings for the drain will be installed in accordance with the manufacturer's written recommendations, instructions, and specifications.
- E13.3.8 Any damaged edge drain or outlet lateral will be replaced or repaired by splicing in an undamaged section of drain at the Contractor's expense. The repair must be in accordance with the manufacturer's written specification and to the satisfaction of the Contract Administrator.
- E13.3.9 Contractor is to protect subdrain from excessive weight during the duration of construction and to repair and make good any pipe collapsed prior to acceptance.
- E13.3.10 The Contractor shall be responsible for restoration of any surfaces damaged during the Work under this section.
- E13.3.11 The top of the trench is to be finished as shown on the Drawings.
- E13.3.12 The sand backfill is to be installed to meet existing grades and sodded where the trench is located in existing sod, as per current CW 3510 and CW3540.
- E13.3.13 The Multi-Flow drain system is to be connected to a solid pipe in accordance with manufacturer's written recommendations, instructions, and specifications and the pipe is then connected to the catch basin.
- E13.3.14 Connecting to existing catch basin will be done as outlined in the current version of CW 2130 – item 3.15 – “Connecting New Sewers an Catch Basin Leads to Existing Manholes, Catch Basins and Catch Pits”.
- E13.3.15 Trenches are to be inspected by the Contract Administrator prior to backfilling.
- E13.3.16 Cleaning as per D23.

#### E13.4 Method of Measurement and Basis of Payment

##### E13.4.1 Method of Measurement shall be as follows:

- (a) Sub-surface Drainage shall be measured on a lineal metre basis for:
  - (i) “Supply and Install drainage piping” on Form B: Prices.

##### E13.4.2 Basis of Payment shall be as follows:

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

#### E14. **CAST-IN-PLACE CONCRETE PAVEMENT**

##### E14.1 Description

- E14.1.1 The specification shall supplement the current version of CW 3325 and CW 3310.
- E14.1.2 The Contractor shall furnish all labour, materials, equipment and services necessary to complete the Work according to the drawings and specifications.

##### E14.2 Material

- E14.2.1 All material shall conform to current CW 3325 and CW 3310 and all other applicable current City of Winnipeg Standard Construction Specifications, whether listed herein or not.
- E14.2.2 Granular limestone base is to be crushed stone or gravel having hard angular particles, free from clay lumps, cementation, organic material, frozen material or other deleterious materials.

- E14.2.3 Geotextile shall be non-woven and installed as shown on the drawings. It shall have an apparent opening size of between 0.149 mm and .210 mm and a minimum unit weight of 135 grams per sq. m.
- E14.3 Supply of Materials and Equipment
- E14.3.1 The Contractor shall supply all materials and use equipment in accordance with the current version of CW 3325.
- E14.4 Construction Methods
- E14.4.1 No concrete work shall commence until the excavation has been completed in accordance with the current version of CW 3110 and the drawings has been approved by the Contract Administrator.
- E14.4.2 Sub-base compaction shall be in accordance with the current version of CW 3110.
- E14.4.3 Base Course to be installed to a depth of 150 mm in accordance with the current version of CW 3110 and the drawings.
- E14.4.4 Concrete pavement shall be installed as shown on drawings in accordance with the current version of CW 3310.
- E14.4.5 Pavement joints shall be constructed, where required, as directed by the Contract Administrator and as shown on the drawings and shall be in accordance the current version of CW 3325.
- E14.4.6 Concrete Placement for concrete walkways shall be installed to a depth of 127 mm thickness. Concrete Placement for thickened edge shall be reinforced as per drawings to a depth of 305 mm. Both shall be in accordance with the current version of CW 3310, Section 9.4.
- E14.5 Cleaning as per D23.
- E14.6 Method of Measurement and Basis of Payment
- E14.6.1 Method of Measurement shall be as follows:
- (a) CIP concrete pavement shall be measured on a square meter basis for:
    - (i) "Supply and install 127 mm (5") reinforced concrete pavement" on Form B: Prices.
- E14.6.1 Basis of Payment shall be as follows:
- (a) CIP concrete pavement will be paid for at the Contract Unit Prices. The amount to be paid for shall be the total number of units, as indicated on Form B: Prices. This price shall be full payment for supplying all labour, equipment and materials, and performing all operations herein described and all other items incidental to the Work and as accepted by the Contract Administrator.
- E15. **TIMBER EDGING**
- E15.1 General Description
- E15.1.1 This specification shall cover the supply and installation of two and three tier timber edging to contain the wood fibre safety surfacing in the new play area.
- E15.1.2 The Contractor shall furnish all labour, materials, equipment and services necessary to complete the Work according to the drawings and specifications.
- E15.2 Materials and Construction Method
- E15.2.1 Cap and screws per the current version of SCD-651A with tiers heights as indicated on drawings.

- E15.2.2 All wood rows shall be pressure treated spruce, pine or fir, No. 2 or better, no wane, bark, checking or splitting permitted. Wood shall be smooth and free of rough areas. All timbers to be 140 mm x 140 mm with a minimum length of 1200 mm. All ends and cuts shall be treated with preservative before being secured. Use longest lengths possible.
- E15.2.3 Edging material shall be cut neatly for a proper fit with no spaces or gaps between. Finished elevations shall ensure that all edging material is smooth, level, set plumb and spaced uniformly. Joints to be butt joints. Joints in straight runs are to be lapped over timber by a minimum of 600 mm.
- E15.2.4 Sod shall be repaired as required around edging as per the current version of CW 3510 and CW3540.
- E15.3 Cleaning as per D23.
- E15.4 Method of Measurement and Basis of Payment
- E15.4.1 Method of Measurement shall be as follows:
- (a) Timber Edging will be measured on a linear metre basis for:
    - (i) "Supply and Install 2 tier timber edging w// cap", and;
    - (ii) "Supply and Install 3 tier timber edging w/ cap", on Form B: Prices.
- E15.4.2 Basis of Payment shall be as follows:
- (a) Timber edging will be paid for at the Contract Unit Prices. The amount to be paid for shall be the total number of units, as indicated on Form B: Prices. This price shall be full payment for supplying all labour, equipment and materials, and performing all operations herein described and all other items incidental to the Work and as accepted by the Contract Administrator.

## E16. **ENGINEERED WOOD FIBRE SURFACING**

### E16.1 General Description

- E16.1.1 This specification shall cover the supply and install of wood fibre safety surfacing, including granular drainage layer.
- E16.1.2 The Contractor shall furnish all labour, materials, equipment and services necessary to complete the Work according to the drawings and specifications.

### E16.2 Materials

#### E16.2.1 Engineered Wood Fibre Surfacing

- (a) Wood Fibre product shall be either Zeager Woodcarpet system 1 or Fibar System **200** or **300**:
- (b) Wood Fibre surfacing shall be supplied by an authorized distributor and delivery slips and/or a warranty certificate from an authorized supplier are to be submitted to the Contract Administrator prior to installation.
  - (i) Contact for Woodcarpet:  
Zeagar Bros. Inc.  
4000 East Harrisburg Pike, Middletown, PA 17057, USA  
Phone: 1-888-346-8524 or 717-944-7481 ·  
Fax: 717-944-7681  
Email: [sales@zeager.com](mailto:sales@zeager.com)
  - (ii) Contact for FibarSystem **200** or **300**:  
The Fibar Group LLC  
80 Business Park Drive, Suite 300, Armonk, NY 10504-1705, USA

Phone: 1-800-342-2721

Fax: 914-273-8659

Email: [info@FibarPlaygrounds.com](mailto:info@FibarPlaygrounds.com)

- (c) Approved substitutions must be in accordance with **B7** and the following conditions:
  - (i) materials must be IPEMA certified Engineered Wood Fibre;
  - (ii) material must consist of random-sized, clean, engineered hardwood chips. Standard wood chips or bark mulch are not acceptable;
  - (iii) materials must meet or exceed ASTM F1292 standards for impact attenuation;
  - (iv) materials must be certified by the CSA and approved for playground use;
  - (v) materials must comply with ASTM F1951 for accessibility under the Canadians with Disabilities Act;
  - (vi) materials must be covered by \$10,000,000.00 product liability insurance as well as provide a minimum 10 year warranty against loss of resiliency.
- (d) Wood Fibre surfacing shall include wood fibre, filter cloth, granular drainage layer and mats under swings and ends of slides.
- (e) Mats are to be installed directly on top of the geotextile fabric and secured in place with two (2) duckbill anchors per mat.

#### E16.2.2 Construction Methods

- (a) Wood Fibre shall be installed within the play areas, as defined by the timber edging to a **minimum depth of 300 mm** (after compaction). In the case where proposed play equipment includes a maximum fall height greater than 2400 mm (8'-0"), depth of material to directly correspond to maximum fall height of play equipment in accordance with manufacturer's written specifications.
- (b) The installation of the Wood Fibre shall be done immediately after the play equipment has been installed.
- (c) Installation of entire system, including fibre, filter cloth, subsurface drainage and mats under swings and slide ends shall be done in accordance with manufacturer's written instructions and specifications.
- (d) Adequate drainage within play equipment area must be ensured and in accordance with manufacturer's written instructions and specifications.
- (e) Mud grade of play area shall be graded to drain to one edge of the play area and area cleared of any debris which inhibits proper drainage. Drainage pipe shall be installed from the subsurface drainage system within the play area to run outside of the play area perimeter to drain into an existing catch basin. The cost of this shall be included in the price for the wood fibre supply and installation.
- (f) Filter fabric must be cut and fit around playground equipment footings and overlap seams by 300 mm.
- (g) Installation
  - (i) Shall be done by equipment sized to suit the Work being done
  - (ii) Wood Fibre shall be spread by hand, as necessary, in the immediate vicinity of the play equipment so as not to damage the play equipment. Any damage to the play equipment shall be reported to the Contract Administrator immediately.
  - (iii) The play equipment shall be swept clean to the satisfaction of the Contract Administrator after installation of the Wood Fibre.

#### E16.3 Cleaning as per D23.

#### E16.4 Method of Measurement and Basis of Payment

##### E16.4.1 Method of Measurement shall be as follows:

- (a) Protective Surfacing will be measured on a square metre basis for:
  - (i) "Supply and Install engineered wood fibre safety surfacing" on Form B: Prices.

E16.4.2 Basis of Payment shall be as follows:

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

## E17. PERENNIAL BEDS

### E17.1 Description

E17.1.1 This specification shall cover perennial bed installation and planting topsoil.

E17.1.2 The Contractor shall furnish all labour, materials, equipment and services necessary to complete the Work according to the drawings and specifications.

### E17.2 Materials

#### E17.2.1 Topsoil Mix

- (a) Planting soil shall consist of black top soil, a fertile friable natural loam containing by volume not less than 4% and no more than 25% of organic matter for clay loams, and not less than 2% and no more than 25% for sandy loams, with an acidity value ranging from pH 6.0 to 8.0 and capable of sustaining vigorous plant growth. Topsoil is to be free of any mixture of subsoil, clay lumps and free of stones and other extraneous matter including couch or crab grass rhizomes.

#### E17.2.2 Wood chip mulch

- (a) Install as per **E18**.

### E17.3 Construction Methods

#### E17.3.1 Excavation and Preparation of Planting Beds

- (a) New Perennial Beds to be excavated as per drawings and as per **E12**.
- (b) Upon excavation of the planting bed, the excavation shall be backfilled with a topsoil mixture to a depth to permit adequate installation and stabilization of the plant material.
- (c) Topsoil shall be placed in accordance with the current version of CW 3540 to a minimum depth of 300 mm in areas indicated on drawings.

#### E17.3.2 Wood chip mulch placement

- (a) Mulch to be installed as per drawings after planting installation is complete.

E17.4 Cleaning as per D23.

### E17.5 Method of Measurement and Basis of Payment

#### E17.5.1 Method of Measurement shall be as follows:

- (a) Perennial Beds will be measured on a cubic metre basis for:
  - (i) "Supply and Install perennial planting beds" on Form B: Prices.
- (b) No measurement will be made for Supply and Installation of wood chips as this item is incidental to **E18**.

E17.5.2 Basis of Payment shall be as follows:

- (a) Perennial Beds will be paid for at the Contract Unit Prices. The amount to be paid for shall be the total number of units, as indicated on Form B: Prices. This price shall be full payment for supplying all labour, equipment and materials, and performing all operations herein described and all other items incidental to the Work and as accepted by the Contract Administrator.
- (b) No payment will be made for Supply and Installation of wood chips as this item is incidental to **E18**.

## E18. **WOOD CHIPS**

### E18.1 Description

E18.1.1 This specification shall cover the supply and installation of Woodchip Mulch:

- (a) located within and around perennial grass beds; and
- (b) in separate areas as identified on Drawings.

### E18.2 Materials

#### (a) Woodchips

- (i) Natural. Clean bark or wood chip mulch with chips not less than 15mm nor larger than 75mm in size and not more than 20mm thick. Mulch is to be free of leaves, branches and other extraneous matter. Quantity 4 CM.

### E18.3 Construction Methods

- (a) Woodchip Surfacing around all areas shall include a 100mm layer of **compacted** woodchips throughout.

### E18.4 Method of Measurement and Basis of Payment

E18.4.1 Method of Measurement shall be as follows:

- (a) The supply and installation of Woodchip Surfacing shall be measured on a per square metre basis for:
  - (i) "Supply and Install Wood Chips", on Form B:Prices.

E18.4.2 Basis of Payment shall be as follows:

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

## E19. **TREES AND PERENNIAL GRASS PLANTING**

### E19.1 Description:

E19.1.1 The Work to be done by the Contractor under this Specification shall include the furnishing of all superintendence, overhead, labour, materials, equipment, tools, supplies and all other things necessary for and incidental to the satisfactory performance and completion of all Work as shown on the Drawings and as hereinafter specified, including, but not necessarily confined to the following:

- (a) Supply and Installation of trees.
- (b) Supply and Installation of perennial grasses.

### E19.2 Materials

E19.2.1 General

- (a) All nursery stock supplied shall be Canadian prairie nursery grown, of the species and sizes indicated on the drawings. Quality shall be in accordance with the latest "Guide Specification for Nursery Stock of the Canadian Nursery Trades Association".
- (b) Any nursery stock dug from native stands, wood lots, orchards or neglected nurseries and which have not received proper cultural maintenance as advocated by the Canadian Nursery Trades Association shall be designated as "collected plants". The use of "collected plants" will not be permitted unless approved by the Contract Administrator.
- (c) The Contract Administrator reserves the right to inspect the plant material at their original source, and to instruct the supplier on root and branch pruning requirements.
- (d) Nomenclature of specified nursery stock shall conform to the International Code of Nomenclature for Cultivated Plants and shall be in accordance with the approved scientific names given in the latest edition of standardized Plant Names. The names of varieties not names therein are generally in conformity with the names accepted in the nursery trades.
- (e) Plants larger than specified may be used if approved by the Contract Administrator. The use of such plants shall not increase the Contract price.
- (f) All nursery stock shall be measured when the branches are in their normal position. Height and spread dimensions specified refer to the main body of the plant and not from branch tip.
- (g) All nursery stock shall be well branched, true to type, structurally sound, possess a well developed, undamaged root system and shall be free of disease, insect infestations, rodent damage, sunscald, frost cracks and other abrasion or scare to the bark. All parts of the nursery stock shall be moist and show live, green cambium when cut.
- (h) At least one plant of each variety supplied shall bear a tag showing both the botanical and common name of the plant.

#### E19.2.2 Miscellaneous Materials

- (a) Water shall be potable and free of minerals which may be detrimental to plant growth.
- (b) Stakes shall be metal T-Bar, steel, 40x40x5x2440mm. Stakes must be adequately installed into sub-base as to ensure they are not easily removed by vandalism.
- (c) Guying Wire shall be 3mm diameter multi-strand galvanized steel cable.
- (d) Guying Collar shall be plastic tube, 13mm diameter, nylon reinforced.
- (e) Trunk Protection shall be plastic perforated spiraled strip.
- (f) Fertilizer shall be a slow release formulation of low nitrogen and high phosphorus e.g. 10-50-12. Apply quantities at rates stated by product manufacturer.
- (g) Planting Soil shall be as per specification **E17** - Perennial Beds.
- (h) Root Ball Burlap shall be 150 g Hessian burlap, biodegradable.
- (i) Wire Baskets shall be horticultural accepted product designed to carry the weight and to contain a burlap-covered root ball. Minimum diameter basket size is to conform to the same minimum diameter of the tree root ball for the respective minimum tree caliper sizes.

#### E19.2.3 Plant Material

- (a) Nomenclature of specified trees is to conform to the International Code of Nomenclature for Cultivated Plants and is to be in accordance with the approved scientific names given in the latest edition of the Standardized Plant Names.
- (b) Trees are to be characteristically developed for their species and structurally sound, well branched, healthy and vigorous and densely foliated when in leaf. The tree is to have a healthy, well developed, fibrous root system which may be verified through a



testing procedure that destructively samples one or more randomly selected root balls.

- (c) Trees are to have been root pruned regularly, but not later than one growing season prior to arrival on Site. The Contractor may be required to furnish documentation to the client on their root-pruning program. Trees in excess of 75mm caliper are to have been half root pruned during each of two successive growing seasons, the latter at least, one growing season prior to arrival on Site.
- (d) All parts of the trees, especially the lower branches, are to be moist and show live, green cambium tissue when cut.
- (e) Trees are to have only one, sturdy, reasonably straight and vertical trunk, and a well balanced crown with fully developed leader.
- (f) Trees are to be free of disease, insect infestation, rodent damage, sun scald, frost cracks, abrasions, unhealed scars, scars exceeding 5cm in diameter, major forks or crooks in the trunk, broken branches, or angled leaders. Trees having the above defects will not be accepted by the Contract Administrator.
- (g) Trees having a leader which has developed at a sharp angle to the trunk as a result of pruning or trunk damage will not be accepted.
- (h) Trees exhibiting suppressed, weakly developed branches due to competition from other closely spaced trees in the nursery will not be accepted. Trees exhibiting dead branches will not be accepted.
- (i) Any tree that has come out of dormant stage and is too far advanced will not be accepted unless prior approval obtained. Approval is required for any tree which has been held in cold storage.
- (j) Balled and burlapped trees in excess of a 3m height must have been dug with large firm ball. Roots in root balls must be comprised of 75% fibrous and feeder root systems. Secure root balls with burlap, heavy twine and rope. For trees 75mm or more in caliper, wrap ball in double layer of burlap and drum lace with minimum 10mm diameter rope. Protect root balls against sudden changes in temperature and exposure to heavy rainfall.
- (k) Tree spade dug trees are to be dug with mechanized digging equipment with hydraulic spade. Lift root ball from hole, place in wire basket designed for purpose and lined with burlap. Tie basket to ball with heavy rope. Take care not to injure trunk of tree with wire basket ties or rope.
- (l) Use of collected or native trees is not permitted.

#### E19.2.4 Plant Quantity and Size

- (a) Trees and perennials are to be supplied and planted at the quantities and caliper listed on the Planting Lists which are shown on the drawings. Any variations to species, size or caliper of specified plants will require a request for approval from the Contract Administrator.
- (b) Any changes in planting locations will be determined on-site by the Contract Administrator.
- (c) Trees are to be measured when the branches are in their normal position. Height dimensions specified are to refer to the main body of the tree and not from branch tip to root base. Where trees have been measured by caliper or diameter, reference is to be made to the diameter of the trunk measured 15cm above the ground as the tree stands in the nursery prior to lifting. Caliper of tree shall be appropriately designed on a permanently fixed tag on one of the branches.

#### E19.2.5 Shipment and Pre-Planting Care

- (a) Coordinate shipping of trees and excavation of holes to ensure minimum time lapse between digging and planting.

- (b) Tie branches of trees securely, and protect trees against abrasion, exposure and extreme temperature change during transit. Avoid binding of trees with rope or wire which would damage bark, break branches or destroy natural shape of tree. Give full support to root ball of trees during lifting.
- (c) Cover tree foliage with tarpaulin, and protect bare roots by means of dampened straw, peat moss, saw dust or other acceptable material to prevent loss of moisture during transit and storage.
- (d) Remove broken and damaged roots with sharp pruning shears. Make clean cuts, and cover cuts over 10mm diameter with a tree wound dressing.
- (e) Keep roots moist and protected from sun and wind. Heel-in trees which cannot be planted immediately in shaded areas and water well.

### E19.3 Construction Methods

#### E19.3.1 Workmanship

- (a) Location of trees will be staked out or painted on Site by the Contractor. Locations shall be approved by the Contract Administrator prior to installation.

#### E19.3.2 Planting Time

- (a) Plant deciduous trees during dormant period before buds have broken. Trees noted for spring planting only, must be planted in dormant period.
- (b) Plant only under conditions that are conducive to health and physical conditions of trees.

#### E19.3.3 Excavation

- (a) Planting pits shall be excavated as per Drawings for perennials and drawing SCD-517 for trees. Hand dig pits where required to protect underground utilities.
- (b) Protect bottom of excavations against freezing.
- (c) Remove water which enters excavations prior to planting. Ensure source of water is not ground water and notify Contract Administrator.

#### E19.3.4 Installation

- (a) Installation shall be as per Drawings for perennials and Drawing SCD-517 for trees.
- (b) Planting shall be done during periods of suitable weather conditions and in accordance with locally accepted practice.
- (c) Trees are to be planted within forty eight (48) hours of excavation from the nursery.
- (d) No tree pit is to be left open at the end of the Contractor's Work Day. Planting program is to be planned to ensure that all approved trees delivered to the Site at designated planting locations are installed and thoroughly watered the same day as delivery.
- (e) With balled and burlapped root balls and root balls in wire baskets, burlap shall be loosened and cut away from the top 1/3 without disturbing root ball. Wire shall be cut away and removed from the top 1/3 of the root ball. Burlap or rope shall not be pulled from under root ball. Non-biodegradable wrapping shall be removed.
- (f) After inserting the tree and tamping the root system with topsoil in layer of 150mm, water shall be poured in until the pit is thoroughly soaked. Filling of the hole shall then be completed and the fill-in soil shall be packed firmly around the roots, leaving a concave surface for convenient watering. After filling, the planting shall be watered at frequent intervals.
- (g) Each tree is to have an earth saucer at its base having a diameter as large as the excavation with a 10cm lip formed at the perimeter of the saucer to retain water.
- (h) All nursery stock shall be set plumb in the centre of pits and at levels as shown on the planting details after settlement has taken place.

- (i) Nursery stock shall be faced to give the best appearance or relationship to adjacent structure and to the approval of the The City of his representative. Trees shall be placed equal to depth they were originally growing in nursery.

E19.3.5 Fertilizing

- (a) When planting is completed, give surface of planting saucer dressing of fertilizer meeting the requirements of Specification. Mix fertilizer thoroughly with top layer of planting soil and water in well.

E19.3.6 Trunk Protection

- (a) Install trunk protection on trees as indicated.
- (b) Install trunk protection prior to installation of tree supports when used.

E19.3.7 Pruning

- (a) The Contractor shall provide a licensed Manitoba Certified Arborist for each work crew or work site.
- (b) Employ clean sharp tools and make cuts flush with branch collars. Remove dead and injured branches.

E19.3.8 Protection of Stock

- (a) All nursery stock shall be well protected from damage and drying out from the time of digging until the time of planting on site. All roots shall be cleanly cut; split roots are not acceptable.
- (b) Nursery stock shall be transplanted with care to prevent damage. Branches shall be carefully tied in such a manner so as not to break or damage trunks. Points of contact with equipment shall be padded. All nursery stock, which cannot be planted immediately upon arrival at the site, shall be well protected to prevent drying out and shall be kept moist until commencement of planting.

E19.3.9 Wound Dressing

- (a) Horticulturally accepted non-toxic, non-hardening emulsion. Wound Dressing must be approved by Contract Administrator.

E19.3.10 Maintenance

- (a) The Contractor shall be responsible for the maintenance of the trees for a period of **two (2) years** from the date of Substantial Performance. Any areas planted after September 15th, the maintenance period will commence on May 15th of the following year or such date as mutually agreed upon by all parties.
- (b) The Contractor shall be responsible for the maintenance of the perennial grasses for a period of **one (1) year** from the date of Substantial Performance. Any areas planted after September 15th, the maintenance period will commence on May 15th of the following year or such date as mutually agreed upon by all parties.
- (c) Water to ensure soil moisture conditions for optimum growth and health of plant material. Ensure watering techniques do not cause erosion.
- (d) Reform damaged watering saucers.
- (e) Remove weeds bi-monthly.
- (f) Replace or re-spread damaged, missing or disturbed mulch.
- (g) If required to control insects, fungus and disease, use appropriate control methods in accordance with Federal, Provincial and Municipal regulations. Obtain product approval from Contract Administrator prior to application.
- (h) Apply fertilizer as directed by manufacturer's specifications.
- (i) Remove dead, broken or hazardous branches from plant material.
- (j) Keep trunk protection and tree supports in proper repair and adjustment.

- (k) Remove trunk protection, tree supports and level watering saucers at end of warranty period.
- (l) Remove and replace dead plants and plants not in healthy growing condition. Make replacements in same manner as specified for original plantings.
- (m) Submit monthly written reports to Contract Administrator identifying:
  - (i) Maintenance work carried out.
  - (ii) Development and condition of plant material.
  - (iii) Preventative or corrective measures required which are outside Contractor's responsibility.

#### E19.3.11 Warranty

- (a) The Contractor shall, at his/her expense, warrant the Work against any and all defects or deficiencies resulting from insect infestation, disease and mechanical damage due to improper handling, installation or maintenance, for a period of two (2) years for trees and one (1) year for perennial grasses from the date of the Total Performance. Nursery stock damaged by vandalism or reasons beyond the control of the Contractor shall be replaced by the client.
- (b) End-of-Warranty inspection will be conducted by the Contract Administrator.
- (c) The Contract Administrator reserves the right to request material replacement or extend the Contractor's Maintenance responsibilities for an additional **one (1) year** if, at the end of the Warranty Period, leaf development and growth are not sufficient to ensure future survival of the plant material.

#### E19.3.12 Replacements

- (a) During the Maintenance Period, the Contractor shall remove from Site any plant material that has died or failed to grow satisfactorily as determined by the Contract Administrator and replace as per Specifications within a maximum ten (10) day period from notification.
- (b) Defective plants shall be replaced within three (3) days of notification to the Contractor.
- (c) The Contractor shall extend Maintenance and Warranty on replacement tree for a period equal to the original Maintenance and Warranty Periods.
- (d) The Contractor shall continue such replacement, Maintenance and Warranty until tree is acceptable.

#### E19.3.13 Method of Measurement and Basis of Payment

#### E19.3.14 Method of Measurement shall be as follows:

- (a) Trees and Perennial Grasses will be measured on a per unit basis for:
  - (i) "Supply and Install Trees w/ 2 yr maintenance";
  - (ii) "Supply and Install perennial grasses w/ 1 yr maintenance" on Form B: Prices.

#### E19.3.15 Basis of Payment shall be as follows:

- (a) Trees and perennial grass planting will be paid for at the Contract unit price, which shall be payment in full including all costs for the trees and perennial grasses, extended maintenance, and all other items incidental to the Work included in this Specification.
  - (i) Species and quantities as noted.

#### E19.4 Plant List

Quantity	Botanical Name	Size / Remarks
<b>TREES</b>		
4	<i>Quercus ellipsoidalis</i> 'Shooting Star'	60mm calliper, specimen, machine dug with min. 10 branches in well branched head, straight trunk, min. ht. 4500mm
3	<i>Tilia cordata</i> 'Golden Cascade'	60mm calliper, specimen, machine dug with min. 10 branches in well branched head, straight trunk, min. ht. 4500mm
1	<i>Syringia reticulata</i> 'Ivory Silk'	60mm calliper, specimen, machine dug with min. 10 branches in well branched head, straight trunk, min. ht. 4500mm
<b>PERENNIAL GRASSES</b>		
24	<i>Calamagrostis acutifolia</i> "Overdam"	1 gal. container

## E20. FENCING AND GATES

### E20.1 Description

E20.1.1 This specification shall cover the supply and installation of 912 mm high timber fencing, 1410 mm high chain link and timber fencing, chain link and timber gate and custom memorial wood entrance gates and wood bollard as shown on the drawings and specified herein.

E20.1.2 The Contractor shall furnish all labour, materials, equipment and services necessary to complete the Work according to the drawings and specifications.

### E20.2 Quality Assurance

E20.2.1 Lumber identification: by grade stamp of an agency certified by Canadian Lumber Standards Accreditation Board.

### E20.3 Delivery, Storage and Handling

E20.3.1 Deliver, store and handle materials in accordance with manufacturer's written instructions.

E20.3.2 Delivery and Acceptance Requirements: deliver materials to site in original factory packaging, labelled with manufacturer's name and address.

E20.3.3 Storage and Handling Requirements:

- (a) Store materials off ground and in accordance with manufacturer's recommendations in clean, dry, well-ventilated area.
- (b) Replace defective or damaged materials with new.

### E20.4 Materials

E20.4.1 Pressure Treated Timbers, Dimension Lumber and Poles: To CSA 080, ACQ-C treatment, Green colour, No. 2 or better Pine, S4S. Minimum moisture content at treatment in accordance with CSA 080. Minimum retention for above ground use 4.0 kg/m<sup>3</sup> and for ground contact 6.4 kg/m<sup>3</sup>. All wood to be free of defects, any warped, checked or bent materials will be rejected.

E20.4.2 Hardware: to CAD/CSA-G164, for exterior work and acceptable for ACQ treated lumber. All hardware to be hot dipped galvanized, size and type to suit application and as per Drawings.

- E20.4.3 Preservative: Clear type to CSA 080 for above ground applications and preservative suitable for below grade applications on all horizontal boards that are buried below grade.
- E20.4.4 Screw Piles
- (a) Product: Postech Thermal Screw Pile, Product # P238L10-12
  - (b) Screw Piles to be supplied and installed by:
    - VersaPile Premium Foundations Inc.
    - Contact: Dale Plett
    - Phone: 204-793-0653
    - Email: dale@screwiling.ca
  - (c) Approved substitutions must in accordance with **B7**.
- E20.4.5 Chain Link Fabric:
- (a) Fabric shall be No. 9 gauge steel wire woven into a uniform 50 mm (2") diamond pattern mesh or as specified. Size of mesh shall be determined by measuring the minimum clear distance between the wires forming the parallel sides of the mesh. Permissible variation in size of mesh shall be 3 mm (1/8"). Diameter of wire shall be no less than 3.68 mm (0.145"). The top and bottom selvage shall be knuckled.
  - (b) Fabric shall be zinc coated before weaving by the hot dip process to an average mass per unit area of not less than 490 g/m<sup>2</sup>.
  - (c) Mesh fabric shall not be excessively rough, or have blisters, sal ammoniac spots, bruises or flaking.
  - (d) Chain link fabric shall have a minimum tensile strength of 415 MPa.
- E20.4.6 Paint for Routed Lettering
- (a) Black colour. Paint shall be suited to outdoor conditions on GPT lumber
- E20.5 Construction Methods
- E20.5.1 Handling and use of treated timber
- (a) Handle and use treated material in a manner that will avoid damage or field fabrication causing alteration in original treatment.
  - (b) Treat in field, cuts and damages to surface of treated material with an appropriate, clear preservative as described in CSA 080.1974. Ensure that damaged areas such as abrasions nail and spike holes, are thoroughly saturated with field treatment solutions as per CSA 080.1974.
- E20.5.2 All work is to be located and installed in accordance with the Drawing.
- E20.5.3 Contractor shall confirm proposed location of fencing with Contract Administrator prior to fabrication.
- E20.5.4 Contractor to verify underground utility locations prior construction and report any discrepancies to the Contract Administrator immediately.
- E20.5.5 Contractor to coordinate pile installation schedule with VersaPile Premium Foundations, Inc. After installation obtain certificate attesting to the conformity of installation and allowable loads for piles by certified installer as per CCMC 13102-R.
- E20.5.6 All wood cuts shall be sanded to remove any burrs.
- E20.5.7 Treat surfaces of material with wood preservative before installation.
- E20.5.8 Apply preservative by dipping, or by brush to completely saturate and maintain wet film on surface for minimum 3 minute soak into lumber.
- E20.5.9 Re-treat surfaces exposed by cutting, trimming or boring with liberal brush application of preservative before installation.

- E20.5.10 Treat material as follows :
- (a) Ends of all fence posts that have been cut.
  - (b) Ends of wood rails that have been cut.
  - (c) Ends of wood boards that have been cut. Where possible orientate cut ends towards grade.
- E20.5.11 Do all nailing and fastening neatly, evenly, and thoroughly. All screws shall be slightly countersunk so as not to protrude above the face of the wood surface.
- E20.5.12 Install all members true to line, levels, and elevations. Set plumb and space uniformly.
- E20.5.13 Build work square, true and accurate to required height, length, and depth with joints closely fitted and properly secured.
- E20.5.14 Use timbers of the longest possible length to minimize joints.
- E20.5.15 Chain link fabric shall be stretched taut to the correct tension as specified by the manufacturer and to the Contract Administrator's satisfaction.
- E20.5.16 Fasten chain link fabric securely to timber rails and posts as indicated.
- E20.5.17 All abraded chain link fabric surfaces shall be cleaned and painted. Damaged surface areas shall be thoroughly grinded or wire brushed and all loose and cracked zinc coating removed, after which the cleaned area shall be painted with two coats of a zinc pigmented paint approved by the Contract Administrator for these purpose.
- E20.5.18 Routed lettering to be centred vertically on Horizontal slats as per Drawings. Letters to be routed to a ¼" (6mm) depth, concave to not trap water. Letter height as per drawings. Contract Administrator to review horizontal slat prior to installation.
- E20.6 Cleaning as per D23.
- (a) Upon completion remove all sawdust, scrap pieces of wood, metal or plastic lumber straps, and all other debris and legally dispose of off-site.
- E20.7 Method of Measurement and Basis of Payment
- E20.7.1 Method of Measurement shall be as follows:
- (a) The supply and installation of Timber Fencing shall be measured on a per linear metre basis for:
    - (i) "Supply and Install 912mm high timber fencing" on Form B: Prices;
    - (ii) "Supply and Install 1410mm high chain link and timber fencing" on Form B: Prices.
  - (b) The supply and installation of Timber Gate shall be measured on a lump sum basis for:
    - (i) "Supply and Install chain link and timber access gate" on Form B: Prices;
    - (ii) "Supply and Install custom memorial wood entrance gates and wood bollard" on Form B: Prices.
  - (c) No separate measurement will be made for supply and installation of Screw Piles as that is incidental to the work herein.
  - (d) No separate measurement will be made for routing and painting of lettering as that is incidental to the work herein.
- E20.8 Basis of Payment shall be as follows:
- (a) Fencing and Gates will be paid for at the Contract Unit Prices. The amount to be paid for shall be the total number of units, as indicated on Form B: Prices. The price shall be full payment for supplying all labour, equipment and materials, and performing all

operations herein described and all other items incidental to the Work and as accepted by the Contract Administrator.

- (b) No separate payment will be made for supply and installation of Screw Piles as that is incidental to the work herein.
- (c) No separate payment will be made for routing and painting of lettering as that is incidental to the work herein.

## E21. **TYNDALL STONE PLINTH**

### E21.1 Description

- E21.1.1 This Specification shall cover the supply and installation of a Tyndall Stone Plinth, as shown on Drawings.
- E21.1.2 The Contractor shall furnish all labour, materials, equipment and services necessary to complete the Work according to the drawings and specifications.

### E21.2 Materials

- E21.2.1 Tyndall Stone Plinth: Natural rough direct from quarry bed, sized as shown on the Drawings, c/w one smooth face cut on 45° angle.
- E21.2.2 Dowels: 19mm diameter steel dowels.

### E21.3 Construction Methods

- E21.3.1 Store tyndall stone plinth in a protected location immediately upon arrival on site.
- E21.3.2 Tyndall stone plinth shall be subject to inspection by the Contract Administrator prior to installation.
- E21.3.3 Ensure concrete pavement is full cured prior to tyndall stone plinth installation.
- E21.3.4 Supply and install tyndall stone plinth on concrete pavement as per Drawings. Lift tyndall stone plinth and install without causing damage to the boulder or concrete pavement. Do not drag plinth across concrete pavement or site.

### E21.4 Cleaning as per D23.

### E21.5 Method of Measurement and Basis of Payment

- E21.5.1 Method of Measurement shall be as follows:
  - (a) Tyndall Stone Plinth shall be measured on a per unit basis for:
    - (i) "Supply and install Tyndall Stone Plinth" on Form B: Prices.
- E21.5.2 Basis of Payment shall be as follows:
  - (a) Tyndall Stone Plinth will be paid for at the Contract Unit Prices. The amount to be paid for shall be the total number of units, as indicated on Form B: Prices. This price shall be full payment for supplying all labour, equipment and materials, and performing all operations herein described and all other items incidental to the Work and as accepted by the Contract Administrator.

## E22. **SOIL AND SOD**

### E22.1 Description

- E22.1.1 In addition to the current version of CW 3510 and CW 3540, this specification shall cover the supply and installation of new topsoil and sod over all graded areas including; around the perimeter of new play area and the construction access route to the new play area.



E22.1.2 The Contractor shall furnish all labour, materials, equipment and services necessary to complete the Work according to the drawings and specifications.

## E22.2 Materials

E22.2.1 Topsoil to conform to current version of CW 3540.

E22.2.2 Sod to conform to current version of CW 3510.

## E22.3 Construction Methods

E22.3.1 The Contractor shall install mineral sod and a minimum 75 mm compacted thickness of topsoil, as required, bringing up level of finished grade as necessary as per SD 243.

E22.3.2 Areas to be sodded are to be laid out on Site and approved by the Contract Administrator before commencing Work. Work outside the limit approved by the Contract Administrator will not be measured and will not be paid for under this section but considered incidental to the Work. Such incidental items that will not be measured include but are not limited to topsoil and sod placed at the edge of new paving. Incidental Site restoration shall conform to the same Specifications.

E22.3.3 Areas to be sodded are to be laid out on Site and approved by the Contract Administrator before commencing Work. Work outside the limit approved by the Contract Administrator will not be measured and will not be paid for under this section but considered incidental to the Work. Such incidental items that will not be measured include but are not limited to topsoil and sod placed at the edge of new paving. Incidental Site restoration shall conform to the same Specifications.

E22.3.4 Where new sod will meet existing, employ a vertical shearing operation, such as using a sharp spade or edger, along the outside edges of the excavation to create a clean and definite line for the new sod to abut flush to.

E22.3.5 Restoration shall be achieved using topsoil and sod unless otherwise directed by the Contract Administrator.

E22.3.6 Thirty (30) day maintenance period on sod will commence at Total Performance and acceptance.

E22.4 Cleaning as per D23.

## E22.5 Method of Measurement and Basis of Payment

E22.5.1 Method of Measurement shall be as follows:

- (a) Soil and Sod will be measured on a square metre basis for "Supply and Install new soil and sod" on Form B: Prices.

E22.5.2 Basis of Payment shall be as follows:

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

## E23. SITE FURNITURE

### E23.1 Description

E23.1.1 This specification shall cover the ordering, **pick-up**, and installation of one (1) waste receptacle, one (1) bench, and one (1) accessible picnic table.

E23.1.2 The Contractor shall furnish all labour, materials, equipment and services necessary to complete the Work according to the drawings and specifications.

## E23.2 Materials

E23.2.1 All materials supplied under this specification shall be of a type approved by the Contract Administrator, and subject to inspection and testing by the Contract Administrator.

(a) **WASTE RECEPTACLE**

- (i) Supplier: City of Winnipeg
- (ii) Product: Waste Receptacle Side Opening Metal Slat Type - Product #52501063GLV **c/w welded base plate with predrilled holes for surface mounting** and Wire Basket - Product # 52501058GLV, as per current SCD-119
- (iii) Finish: Galvanized
- (iv) Mounting: Surface mount with expansion bolts
- (v) Approved substitutions must be in accordance with B7

(b) **BENCH**

- (i) Supplier: City of Winnipeg
- (ii) Product: Tache Style Composite Bench with Arms - Product # 52501071GLV, as per current SCD-121E
- (iii) Finish: Galvanized
- (iv) Mounting: Surface mount with expansion bolts
- (v) Approved substitutions must be in accordance with B7

(c) **ACCESSIBLE PICNIC TABLE**

- (i) Supplier: City of Winnipeg
- (ii) Product: Tache Style Wheelchair Metal Frame Picnic Table, as per current SCD-122A
- (iii) Painted Finish - Colour, Cedar
- (iv) Metal Finish: Galvanized
- (v) Mounting: Surface mount with expansion bolts
- (vi) Approved substitutions must be in accordance with B7

E23.2.2 For ordering Site Furniture email:

- (a) [pwd-cps-orderdesk@winnipeg.ca](mailto:pwd-cps-orderdesk@winnipeg.ca)
- (b) **Contractor to notify City of Winnipeg Order Desk in email order request that Waste Receptacle Product #52501063GLV is to be surface mounted and include welded base plate with predrilled holes.**

## E23.3 Construction Methods

- (a) All Work is to be located and installed in accordance with the drawings, and associated SCDs using approved non-rusting, vandal resistant fasteners to ensure solid, durable, finished work suitable for the purpose intended. Fasteners and assembly hardware shall be incidental to the Work;
- (b) All furnishings and fixtures to be installed plumb and true to correct elevations and location, as directed by the Contract Administrator. The Contractor shall confirm proposed locations of all site furnishings with Contract Administrator prior to installation;
- (c) All furnishings and fixtures to be carefully handled so that no parts will be bent, broken or otherwise damaged. Hammering is prohibited.

E23.4 Cleaning as per D23.

E23.5 Method of Measurement and Basis of Payment

E23.5.1 Method of Measurement shall be as follows:

- (a) Site Furniture will be measured on a per item basis for the following items:
  - (i) "Pick up and Install metal slat waste receptacle";
  - (ii) "Pick up and Install Tache bench with arm rests"; and
  - (iii) "Pick up and Install accessible picnic table" on Form B: Prices.

E23.5.2 Basis of Payment shall be as follows:

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

## PLAY EQUIPMENT

### E24. PLAY EQUIPMENT

#### E24.1 General Description

E24.1.1 This specification shall cover the supply and install of the Play Equipment as listed below and specified herein.

E24.1.2 The Contractor shall furnish all labour, materials, equipment and services necessary to complete the Work according to the drawings and specifications.

E24.2 The Contractor shall obtain all approvals including permit if required.

#### E24.3 Play Area:

E24.3.1 Two play areas are to be designed, one for children aged 2 to 5 years old, and one for children ages 5-12 years old.

E24.3.2 A **minimum of one (1)** independent component shall be proposed for each of the 2-5 yr age group and 5-12 yr age group.

E24.3.3 Play equipment must provide the following play activities:

- (a) Sensory & Imaginative Play;
- (b) Climbing;
- (c) Balancing;
- (d) Motion;
- (e) Sliding;

E24.3.4 The design submission shall be evaluated as per **B20**.

E24.3.5 If a play structure is proposed, it must include at least one (1) transfer station per playstructure for access of adult caregiver or reduced mobility access.

E24.4 If colour is a feature of posts, top caps and panels, the Contract Administrator shall have the ability to modify specified colours from the proposed design after Contract Award. If the price of the equipment in the Bid Submission is subject to the colours of the proposed design, this shall be indicated in the Bid Submission.

E24.5 Components which are **unacceptable** are the following:

- (a) Wooden structures;
- (b) Tube (enclosed) slides and enclosed crawl tubes;
- (c) Play panels with many small moving parts;

- (d) Talk Tubes;
- (e) Barrel rollers; and
- (f) Large number of plastic components.

## E24.6 Playstructures

### E24.6.1 General Description

- (a) If a Playstructure is specified, this specification shall cover the supply and installation of it.
- (b) Play equipment shall be installed in the play areas as shown on the attached Drawing. The play equipment and their safety zones should fit into the proposed play areas. Efficiency and good use of space will be considered in the evaluation of submissions.

### E24.6.2 Materials

- (a) Posts / Caps
  - (i) All posts shall be a minimum 127 mm (5") O.D. round or 100 mm (4") square tubing for a post and deck structure.
  - (ii) 89 mm (3.5") O.D. round or 73 mm (3") square tubing will be permitted in circumstances where a multi-deck structure has decks of varied heights which are all under 1220 mm (4'-0"), or for structures with 2 decks or less.
  - (iii) All posts shall be fabricated from either aluminum 3 mm (0.125") 11 ga min. wall thickness or galvanized steel 3 mm (0.120") 11 ga min. wall thickness tubing. All fabrication cuts, drill holes and weld joints shall be sprayed with a corrosion resistant coating. The bottom end of the posts is to be sealed with a moisture barrier.
  - (iv) In the case of a deckless structure, a minimum size of 60 mm (2 3/8") O.D. round posts fabricated out of steel or aluminum is acceptable.
  - (v) Top caps shall be made of steel construction and shall be factory installed and secured in place with tamper proof, self-sealing rivets. Plastic top caps will be accepted if made of solid construction (hollow caps not accepted).
  - (vi) If painted colour is a feature of posts and top caps, it shall be a baked-on polyester powder coating. The powder coating finish shall meet or exceed ASTM standards for hardness, adhesion, impact and salt spray resistance.
- (b) Decks (if applicable)
  - (i) All decks shall be manufactured from vinyl-coated perforated steel or a steel core composite. Deck heights may vary to a maximum height of 1830 mm (6'-0").
- (c) Clamping System
  - (i) All deck, rail and play component clamping systems shall be fabricated from zinc plated, galvanized steel, stainless steel or aluminum. Tamper proof, corrosion resistant fasteners shall be used to retain clamping systems.
- (d) Handrails, Safety Rails and Handloops (if applicable)
  - (i) All handrails, safety rails and handloops shall be fabricated using a minimum of 24 mm (15/16") O.D. with 3 mm (0.120") 11 ga min. wall thickness steel tubing. After all fabrication activities have occurred including end cuts, drill holes, bends and weld joints, all components shall be hot dipped galvanized.
  - (ii) Smooth all cut edges and weld joints prior to hot dip galvanizing and ensure that all tubing is free from burrs, cracks, defects and other imperfections.
- (e) Hardware
  - (i) All fasteners shall be socketed and tamper proof in design and requiring special tool

- (ii) Hardware shall either be carbon steel plated with zinc/nickel and iridescent chromate finish or stainless steel.
  - (iii) All necessary hardware shall be provided.
- (f) Poly Components
  - (i) Poly components such as slides and hoods shall be fabricated from U.V. stabilized rotationally moulded linear low-density polyethylene.
  - (ii) Poly components such as play panels shall be fabricated from compression moulded solid colour, U.V. stabilized, high-density polyethylene.
- (g) Slides (if applicable)
  - (i) A minimum of one stainless steel slide is required, north or east orientation is preferred.
- (h) Each playstructure shall have kick plates and hand loops as required to meet the current version of the Canadian Standards Association (CSA) Standards.

#### E24.6.3 Installation

- (a) Play equipment shall be installed as per manufacturer's written specifications and in accordance with the most recent Canadian Standards Association (CSA) Standards.
- (b) **One play equipment installer on site, at minimum, must be a valid Canadian Certified Playground Inspector.**
- (c) All posts and other vertical items shall be plumb and true to vertical, if so designed.
- (d) All decks shall be level, if so designed.

#### E24.7 Independent Components

##### E24.7.1 General Description

- (a) The Contractor shall furnish all labour, materials, equipment and services necessary to complete the Work according to the specifications.
- (b) This specification shall cover the supply and installation of Independent Components as specified herein.
- (c) Independent Components shall be installed as per the proposed design, as the proposed budget will allow.
- (d) Independent Components shall be installed in the available areas as shown on Drawings. The Components and their safety zones must fit into the proposed play area.

##### E24.7.2 Materials

- (a) All materials shall be structurally sound and suitable for safe play. Durability shall be ensured on all parts and materials.
- (b) There shall be a minimum (or no) amount of hollow plastic components. Solid plastic is acceptable.
- (c) There shall be a minimum amount of solid elements which limit visibility through the Site.
- (d) Hardware
  - (i) All fasteners shall be socketed and tamper proof in design and requiring special tool.
  - (ii) Hardware shall either be carbon steel plated with zinc/nickel and iridescent chromate finish or stainless steel.
  - (iii) All necessary hardware shall be provided.
- (e) Finishes

- (i) Finishes shall meet or exceed ASTM standards for hardness, adhesion, impact and salt spray resistance. All fabrication cuts, drill holes and weld joints shall be sprayed with a corrosion resistant coating.
- (f) Slides
  - (i) If an independent slide is proposed, stainless steel is preferred. If other slides are proposed on the Site one may be plastic. North or east orientation preferred. If independent slide over 1220 mm (4'-0") high is proposed, support posts must be minimum 127 mm (5") O.D.
  - (ii) Tube (enclosed) slides and plastic spiral slides will not be accepted.
- (g) Foundations
  - (i) Shall be as per **E26**

E24.8 Cleaning as per D23.

E24.9 Method of Measurement and Basis of Payment

E24.9.1 Method of Measurement shall be as follows:

- (a) Play Equipment shall be measured on a lump sum basis for:
  - (i) "Supply and Install 2-5 Play Equipment";
  - (ii) "Supply and Install 5-12 Play Equipment", and;
  - (iii) "Supply and Install Independent Components" on Form B: Prices.

E24.9.2 Basis of Payment shall be as follows:

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

E25. **SWING SET**

E25.1 General Description

E25.1.1 The Contractor shall furnish all labour, materials, equipment and services necessary to complete the Work according to the specifications.

E25.1.2 This specification shall cover the supply and installation of one (1) complete 2440 mm (8'-0") tall swing standard as specified herein:

- (a) Three Leg Heavy Duty Swing Frame, 2440 mm (8'-0") high, 2-Bay, complete with two (2) slash-proof rubber belt seats, heavy-duty chain, swing hangers and hammer locks / bolt links **and** two (2) slash-proof rubber, enclosed infant seats, heavy-duty chain, swing hangers and hammer locks / bolt links.

E25.2 Materials

E25.2.1 Topbeam

- (a) All topbeams shall be fabricated from **89 mm (3 1/2") O.D. 8 gauge (minimum), RS40 galvanized steel pipe with anti-wrap**. All fabrication cuts, drill holes and weld joints shall be sprayed with a corrosion resistant coating.

E25.2.2 Legs

- (a) All legs shall be fabricated from 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. The bottom end of the posts is to be sealed with a moisture barrier.

E25.2.3 Yoke Clamps

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

E25.2.4 Swing Hangers

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

E25.2.5 Swing Chain

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

E25.2.6 Enclosed Infant (Bucket) Seats

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

E25.2.7 Belt Seats

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

E25.2.8 Hardware

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

E25.2.9 Concrete Foundations

- (a) Post shall be installed into a concrete footing the composition of which is detailed in **E26**.

E25.3 Installation

E25.3.1 Installation shall be in accordance with Manufacturer's written specifications.

E25.3.2 Top rail is to be level and posts securing anchored in concrete.

E25.3.3 Swing seats shall not be installed until the protective surfacing (in accordance with **E16**) has been installed

E25.4 Cleaning as per D23.

E25.5 Method of Measurement and Basis of Payment

E25.5.1 Method of Measurement shall be as follows:

- (a) Swing Set will be measured on a per unit basis for:
  - (i) "Supply and Install 2400 mm (8'0") tall, 2 bay, 2 belt, 2 infant swing Swing Set" on Form B: Prices.

E25.5.2 Basis of Payment shall be as follows:

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

E26. **FOUNDATIONS**

E26.1 General Description

E26.1.1 All playground equipment posts, bases and anchors are to be set in concrete footings or piles to ensure stability and prevent frost heaving. An alternative to concrete footings or piles that may be approved includes a welded and secured rail mounting system. The current version of CW 2160 - *Concrete Underground Structures and Works* is to be utilized in the installation of concrete works for all below ground components.

E26.2 Materials

- (a) The specific concrete requirements shall be:
- (b) Sulfate resistant, Type 50 Cement;
- (c) 28 day compressive strength of 30 Mpa;
- (d) maximum aggregate size of 20 mm, nominal;
- (e) slump 80 +/- 20 mm;
- (f) maximum water/cement ratio 0.49.

E26.3 Installation

E26.3.1 All posts and supports shall be centred in the concrete footing such that there is a complete collar of concrete around each post and support. Where posts are not perfectly centred there should be a minimum of 51 mm (2") concrete at any point around the post.

E26.3.2 All concrete footings for play equipment shall be a **minimum of 914 mm (3'-0") depth**, or in accordance with Manufacturer's written specifications, whichever is greater.

E26.4 Cleaning as per D23.

E26.5 Method of Measurement and Basis of Payment

E26.5.1 Method of Measurement shall be as follows:

- (a) Foundations shall be incidental to the measurement of Play Equipment listed above and as shown on Form B: Prices.

E26.5.2 Basis of Payment shall be as follows:

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

E26.6 Cleaning as per D23.

E27. **MAINTENANCE KITS**

E27.1 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.

E27.2 There shall be no payment for the maintenance kits.

**END OF SPECIFICATIONS**