



**THE CITY OF WINNIPEG**

# **REQUEST FOR PROPOSAL**

**RFP NO. 592-2014**

**FOR THE DESIGN AND CONSTRUCTION OF LINDSAY WILSON SPRAY PARK**

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## **PART B - BIDDING PROCEDURES**

### **B1. CONTRACT TITLE**

B1.1 FOR THE DESIGN AND CONSTRUCTION OF LINDSAY WILSON SPRAY PARK

### **B2. SUBMISSION DEADLINE**

B2.1 The Submission Deadline is 4:00 p.m. Winnipeg time, July 25, 2014.

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. ENQUIRIES**

B3.1 All enquiries shall be directed to the Contract Administrator identified in D4.1.

B3.2 If the Bidder finds errors, discrepancies or omissions in the proposal, or is unsure of the meaning or intent of any provision therein, the Bidder shall promptly notify the Contract Administrator of the error, discrepancy or omission at least five (5) Business Days prior to the Submission Deadline.

B3.3 If the Bidder is unsure of the meaning or intent of any provision therein, the Bidder should request clarification as to the meaning or intent prior to the Submission Deadline.

B3.4 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 Bidders by issuing an addendum.

B3.5 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 Bidder who made the enquiry.

B3.6 The Bidder shall not be entitled to rely on any response or interpretation received pursuant to B3 unless that response or interpretation is provided by the Contract Administrator in writing.

### **B4. CONFIDENTIALITY**

B4.1 Information provided to a Bidder by the City or acquired by a Bidder 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 Bidder before receipt hereof; or
- (b) becomes publicly known other than through the Bidder; or
- (c) is disclosed pursuant to the requirements of a governmental authority or judicial order.

B4.2 The Bidder 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.

### **B5. ADDENDA**

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

- B5.2 The Contract Administrator will issue each addendum at least two (2) Business Days prior to the Submission Deadline, or provide at least two (2) Business Days by extending the Submission Deadline.
- B5.2.1 Addenda will be available on the Bid Opportunities page at The City of Winnipeg, Corporate Finance, Materials Management Division website at <http://www.winnipeg.ca/matmgt/bidopp.asp>.
- B5.2.2 The Bidder is responsible for ensuring that he/she has received all addenda and is advised to check the Materials Management Division website for addenda regularly and shortly before the Submission Deadline, as may be amended by addendum.
- B5.3 The Bidder 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.

## **B6. SUBSTITUTES**

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

- B6.8 If the Contract Administrator approves a substitute as an “approved alternative”, any Bidder bidding that approved alternative may base his/her Total Bid Price upon the specified item but may also indicate an alternative price based upon the approved alternative. Such alternatives will be evaluated in accordance with B19.
- B6.9 No later claim by the Contractor for an addition to the Total Bid Price because of any other changes in the Work necessitated by the use of an approved equal or an approved alternative will be considered.
- B6.10 Notwithstanding B6.2 to B6.9 and in accordance with B7.5, deviations to terms and conditions inconsistent with the Proposal document shall be evaluated in accordance with B19.1(a).

## **B7. PROPOSAL SUBMISSION**

- B7.1 The Proposal shall consist of the following components:
- (a) Form A: Proposal;
  - (b) Form B: Prices;
  - (c) Design drawings and component descriptions;
  - (d) Project work plan;
  - (e) Systems Integration and Economic Analysis;
- B7.2 Further to B7.1, the Bidder should include the written correspondence from the Contract Administrator approving a substitute in accordance with B6.
- B7.3 All components of the Proposal shall be fully completed or provided, and submitted by the Bidder no later than the Submission Deadline, with all required entries made clearly and completely, to constitute a responsive Proposal.
- B7.3.1 Bidders should submit one (1) unbound original 8.5” x 11” original (marked “original”) including drawings and six (6) copies (copies can be any size format).
- B7.3.2 Proposal format, including type of binding, size of pages and, font, etc., will not be regulated, except that the Proposal should be presented in the Sections identified above. Proponents are encouraged to use their creativity to submit a Proposal which provides the requested information for evaluation and other information which illustrates the strength of their team.
- B7.4 Bidders are advised not to include any information/literature except as requested in accordance with B7.1.
- B7.5 Bidders are advised that inclusion of terms and conditions inconsistent with the Proposal document, including the General Conditions, will be evaluated in accordance with B19.1(a).
- B7.6 The Proposal should be submitted enclosed and sealed in an envelope clearly marked with the RFP number and the Bidder’s name and address.
- B7.6.1 Samples or other components of the Proposal which cannot reasonably be enclosed in the envelope may be packaged separately, but shall be clearly marked with the RFP number, the Bidder’s name and address, and an indication that the contents are part of the Bidder’s Proposal Submission.
- B7.7 Proposals submitted by facsimile transmission (fax) or internet electronic mail (e-mail) will not be accepted.
- B7.8 Proposals shall be submitted to:
- The City of Winnipeg  
Corporate Finance Department  
Materials Management Division  
185 King Street, Main Floor

Winnipeg MB R3B 1J1

**B8. PROPOSAL**

- B8.1 The Bidder shall complete Form A: Proposal, making all required entries.
- B8.2 Paragraph 2 of Form A: Proposal shall be completed in accordance with the following requirements:
- (a) if the Bidder is a sole proprietor carrying on business in his/her own name, his/her name shall be inserted;
  - (b) if the Bidder is a partnership, the full name of the partnership shall be inserted;
  - (c) if the Bidder is a corporation, the full name of the corporation shall be inserted;
  - (d) if the Bidder is carrying on business under a name other than his/her own, the business name and the name of every partner or corporation who is the owner of such business name shall be inserted.
- B8.2.1 If a Proposal is submitted jointly by two or more persons, each and all such persons shall identify themselves in accordance with B8.2.
- B8.3 In Paragraph 3 of Form A: Proposal, the Bidder shall identify a contact person who is authorized to represent the Bidder for purposes of the Proposal.
- B8.4 Paragraph 11 of Form A: Proposal shall be signed in accordance with the following requirements:
- (a) if the Bidder is a sole proprietor carrying on business in his/her own name, it shall be signed by the Bidder;
  - (b) if the Bidder is a partnership, it shall be signed by the partner or partners who have authority to sign for the partnership;
  - (c) if the Bidder is a corporation, it shall be signed by its duly authorized officer or officers and the corporate seal, if the corporation has one, should be affixed;
  - (d) if the Bidder is carrying on business under a name other than his/her own, it shall be signed by the registered owner of the business name, or by the registered owner's authorized officials if the owner is a partnership or a corporation.
- B8.4.1 The name and official capacity of all individuals signing Form A: Proposal should be printed below such signatures.
- B8.5 If a Proposal is submitted jointly by two or more persons, the word "Bidder" shall mean each and all such persons, and the undertakings, covenants and obligations of such joint Bidders in the Proposal and the Contract, when awarded, shall be both joint and several.

**B9. PRICES**

- B9.1 The Bidder shall state a price in Canadian funds for each item of the Work identified on Form B: Prices.
- B9.1.1 Notwithstanding C12.2.3(c), prices on Form B: Prices shall not include the Manitoba Retail Sales Tax (MRST, also known as PST), which shall be extra where applicable.
- B9.2 The quantities listed on Form B: Prices are to be considered approximate only. The City will use said quantities for the purpose of comparing Proposals.
- B9.3 The quantities for which payment will be made to the Contractor are to be determined by the Work actually performed and completed by the Contractor, to be measured as specified in the applicable Specifications.
- B9.4 Payments to Non-Resident Contractors are subject to Non-Resident Withholding Tax pursuant to the Income Tax Act (Canada).

## **B10. QUALIFICATION**

### **B10.1 The Bidder shall:**

- (a) undertake to be in good standing under The Corporations Act (Manitoba), or properly registered under The Business Names Registration Act (Manitoba), or otherwise properly registered, licensed or permitted by law to carry on business in Manitoba, or if the Bidder does not carry on business in Manitoba, in the jurisdiction where the Bidder 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.

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

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

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

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

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

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

### **B10.6 Further to B10.3(c), the Bidder shall, within five (5) Business Days of a request by the Contract Administrator, provide proof satisfactory to the Contract Administrator that the Bidder/Subcontractor has a workplace safety and health program meeting the requirements of The Workplace Safety and Health Act (Manitoba), by providing:**

- (a) 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
- (b) 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
- (c) 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/>).



B10.7 The Bidder shall submit, within three (3) Business Days of a request by the Contract Administrator, proof satisfactory to the Contract Administrator of the qualifications of the Bidder and of any proposed Subcontractor.

B10.8 The Bidder shall provide, on the request of the Contract Administrator, full access to any of the Bidder's equipment and facilities to confirm, to the Contract Administrator's satisfaction, that the Bidder's equipment and facilities are adequate to perform the Work.

## **B11. DESIGN DRAWINGS AND COMPONENT DESCRIPTIONS**

B11.1 The Bidder's team is requested to develop the detailed concept design and costing for the project based on the information in the RFP, conceptual drawings and other information provided.

B11.2 Drawings shall include, at a minimum:

- (a) Site context drawings including location and configuration of the spray pad and spray features in association with the site works as represented in the preliminary concepts provided, indication of site services, and any connections that are required or will be considered beneficial.
- (b) Perspective sketches, sections, details and other submissions sufficient to illustrate the nature and overall quality of the design and addressing the following:
  - (i) The overall quality of the design including integration with the surrounding park;
  - (ii) Concept and functionality of the design and its aesthetic appeal;
  - (iii) Quality, durability and warranty of materials;
  - (iv) Universal design/ Inclusive design;
  - (v) How the design will work within the constraints of the existing conditions.
  - (vi) Overall play experience including quantity and quality of spray features.
- (c) Spray feature descriptions and graphic or catalogue reference.

## **B12. PROJECT WORK PLAN**

B12.1 The understanding and approach to the delivery of the project and the tasks to complete the project on time and in budget are critical. The proposal at this stage should demonstrate the rationale of the design, which at a minimum includes:

- (a) Provide an understanding of the functional and technical issues and considerations, on the project requirements and budget.
- (b) An organization chart identifying the major team members and showing the relationship, roles and responsibilities of the major team members who will perform the work.
- (c) Provide a detailed methodology for each stage of the project. Specifics are to include a detailed description of tasks, task assignments, and responsibilities.
- (d) Provide a proposed project work plan including a Gantt chart, identification of major stages of the work, critical dates and project milestones.
- (e) Provide a methodology for delivering the project including
  - (i) schedule,
  - (ii) quality assurance,
  - (iii) budget control and assurance,
  - (iv) risk management,
  - (v) a description of the proposed commissioning process, and
  - (vi) a clear description of the training being proposed including; Identification of training staff; Syllabus; Number of training days for each session; Expected City supplied resources;

**B13. SYSTEMS INTEGRATION AND ECONOMIC ANALYSIS**

- B13.1 A brief description of how the spray pad components will operate.
- B13.2 The anticipated daily water consumption information – based upon a 6 hr. daily operation with a drain away system.
- B13.3 The maintenance schedule and anticipated maintenance costs associated with the spray pad features and mechanical system being proposed.

**B14. OPENING OF PROPOSALS AND RELEASE OF INFORMATION**

- B14.1 Proposals will not be opened publicly.
- B14.2 After award of Contract, the names of the Bidders and the Contract amount of the successful Bidder 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/> .
- B14.3 To the extent permitted, the City shall treat all Proposal Submissions as confidential, however the Bidder is advised that any information contained in any Proposal may be released if required by City policy or procedures, by The Freedom of Information and Protection of Privacy Act (Manitoba), by other authorities having jurisdiction, or by law.
- B14.4 Following the award of Contract, a Bidder will be provided with information related to the evaluation of his/her submission upon written request to the Contract Administrator.

**B15. IRREVOCABLE OFFER**

- B15.1 The Proposal(s) submitted by the Bidder shall be irrevocable for the time period specified in Paragraph 10 of Form A: Proposal.
- B15.2 The acceptance by the City of any Proposal shall not release the Proposals of the other responsive Bidders and these Bidders 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.

**B16. WITHDRAWAL OF OFFERS**

- B16.1 A Bidder may withdraw his/her Proposal without penalty by giving written notice to the Manager of Materials at any time prior to the Submission Deadline.
  - B16.1.1 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.
  - B16.1.2 The City will assume that any one of the contact persons named in Paragraph 3 of Form A: Proposal or the Bidder's authorized representatives named in Paragraph 11 of Form A: Proposal, and only such person, has authority to give notice of withdrawal.
  - B16.1.3 If a Bidder 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 Bidder'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 B16.1.3(b), declare the Proposal withdrawn.

**B16.2** A Bidder who withdraws his/her Proposal after the Submission Deadline but before his/her offer has been released or has lapsed as provided for in B15.2 shall be liable for such damages as are imposed upon the Bidder by law and subject to such sanctions as the Chief Administrative Officer considers appropriate in the circumstances. The City, in such event, shall be entitled to all rights and remedies available to it at law.

## **B17. INTERVIEWS**

**B17.1** The Contract Administrator may, in his/her sole discretion, interview Bidders during the evaluation process.

## **B18. NEGOTIATIONS**

**B18.1** The City reserves the right to negotiate details of the Contract with any Bidder. Bidders are advised to present their best offer, not a starting point for negotiations in their Proposal Submission.

**B18.2** The City may negotiate with the Bidders submitting, in the City's opinion, the most advantageous Proposals. The City may enter into negotiations with one or more Bidders without being obligated to offer the same opportunity to any other Bidders. Negotiations may be concurrent and will involve each Bidder individually. The City shall incur no liability to any Bidder as a result of such negotiations.

**B18.3** If, in the course of negotiations pursuant to B18.2 or otherwise, the Bidder 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 Bidder from the Proposal as originally submitted.

## **B19. EVALUATION OF PROPOSALS**

**B19.1** Award of the Contract shall be based on the following evaluation criteria:

- (a) compliance by the Bidder with the requirements of the Request for Proposal or acceptable deviation therefrom:
  - (i) mandatory requirements (pass/fail);
- (b) qualifications of the Bidder and the Subcontractors, if any, pursuant to B10 :
  - (i) mandatory qualifications (pass/fail);
- (c) Total Bid Price (20%);
- (d) Design Drawings and component descriptions (40%);
- (e) Project Work Plan (20%);
- (f) Systems Integration and Economic Analysis; (20%)
- (g) economic analysis of any approved alternative pursuant to B6;

**B19.2** Further to B19.1(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.

**B19.3** Further to B19.1(b), the Award Authority shall reject any Proposal submitted by a Bidder who does not demonstrate, in his/her Proposal or in other information required to be submitted, that he/she is responsible and qualified.

**B19.4** Further to B19.1(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.

- B19.4.1 Further to B19.1(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.
- B19.5 Further to B19.1 (b), if, in the sole opinion of the City, a Proposal does not achieve a pass rating for B19.1(a) and B19.1(b), the Proposal will be determined to be non-responsive and will not be further evaluated.
- B19.6 Further to B19.1 (c), the total bid price shall be evaluated with a weighting of 20 points out of a possible 100 points. As such, the lowest bidder shall receive the full 20 points, and the second lowest bidder and subsequent bidders shall be pro-rated accordingly. A bidder who exceeds the budget shown on Form B: Prices will receive zero points.
- B19.7 Further to B19.1(d) design drawings and component descriptions will be evaluated in accordance with B11.
- (a) Connection of new spray park with existing site and site context and constraints. (5)
  - (b) Quality, nature & diversity of the play events and the interaction between components. Implementation of a consistent theme if a theme is deemed a part of the proposal (10)
  - (c) Use of universal design principles and overall site connectivity between uses, use of spaces and connection to park area (5)
  - (d) Quality, durability and warranty of materials (5)
- B19.8 Further to B19.1(e) Project Work Plan will be evaluated in accordance with B12.
- (a) Consideration of functional and technical issues (7)
  - (b) Organizational chart (3)
  - (c) Clarity and appropriateness of Project delivery schedule (work plan) (5)
  - (d) Consideration of project delivery methodology (5)
- B19.9 Further to B19.1(f) Systems Integration and Economic Analysis will be evaluated in accordance with B13.
- (a) description of how spray pad components will operate (2)
  - (b) anticipated daily water consumption (3)
  - (c) maintenance schedule and costs (5)
- B19.10 This Contract will be awarded as a whole.

## **B20. AWARD OF CONTRACT**

- B20.1 The City will give notice of the award of the Contract, or will give notice that no award will be made.
- B20.2 The City will have no obligation to award a Contract to a Bidder, even though one or all of the Bidders are determined to be responsible and qualified, and the Proposals are determined to be responsive.
- B20.2.1 Without limiting the generality of B20.2, 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.

B20.3 Where an award of Contract is made by the City, the award shall be made to the responsible and qualified Bidder submitting the most advantageous offer.

B20.3.1 Following the award of contract, a Bidder will be provided with information related to the evaluation of his/her Proposal upon written request to the Contract Administrator.

B20.4 Notwithstanding C4 and Paragraph 6 of Form A: Proposal, the City may issue a purchase order to the successful Bidder in lieu of the execution of a Contract.

B20.5 The Contract Documents, as defined in C1.1(n), 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*, these Supplemental Conditions are applicable to the Work of the Contract.

#### D2. SCOPE OF WORK

D2.1 The Work to be done under the Contract shall consist of design and construction of a park including sidewalks, concrete spray pad and features, picnic shelter and planting.

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

- (a) Design of all site works;
- (b) Permitting for all works;
- (c) Construction of concrete pad for a picnic shelter;
- (d) Design and construction of concrete spray pad with all spray features and all required mechanical and electrical works;
- (e) Construction of site works

#### D3. DEFINITIONS

D3.1 When used in this Request for Proposals;

- (a) "**Proposal**" means the offer contained in the Proposal Submission;
- (b) "**Spray Features**" means small outdoor aquatic components that stimulate interactive and creative play. Spray features may include spray columns, water cannons, ground sprays, spray faces, spirals, loop-throughs, and themed structures such as flowers, trees, animals, nautical, etc. The spray features are to be incorporated into the beach entry as shown on the Conceptual Drawing. With zero water depth and a flat surface, the spray feature area conforms to Universal Access guidelines and eliminates the risk of drowning. Such Spray Features although usable by all ages, tends to service the 0-10 age group;
- (c) "**Design Team**" shall refer to the contractors and consultants responsible for the design on the project. This shall include Engineers licensed to practice in Manitoba for each specific component of the project

#### D4. CONTRACT ADMINISTRATOR

D4.1 The Contract Administrator is McGowan Russell Group, represented by:

Jackie Wilkie  
Landscape Architect

Telephone No. 204 956-0396  
Facsimile No. 204 956-1265

D4.2 Before commencement of Work, Ms. Wilkie 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 B7.8

#### D5. CONTRACTOR'S SUPERVISOR

D5.1 Further to C6, the Contractor shall employ and keep on the Work, at all times during the performance of the Work, a competent supervisor and assistants, if necessary, acceptable to

the Contract Administrator. The supervisor shall represent the Contractor on the Site. The supervisor shall not be replaced without the prior consent of the Contract Administrator unless the supervisor proves to be unsatisfactory to the Contractor and ceases to be in his/her employ.

D5.2 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.

D5.2.1 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

## **D8. FURNISHING OF DOCUMENTS**

D8.1 Upon award of the Contract, the Contractor will be provided with five (5) complete sets of the Bid Opportunity. If the Contractor requires additional sets of the Bid Opportunity, they will be supplied to him at cost.

## **SUBMISSIONS**

### **D9. AUTHORITY TO CARRY ON BUSINESS**

D9.1 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.



## **D10. SAFE WORK PLAN**

- D10.1 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.
- D10.2 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> .

## **D11. INSURANCE**

- D11.1 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 cover all machinery, equipment, supplies and/or materials intended to enter into and form part of any installation.
- D11.2 Deductibles shall be borne by the Contractor.
- D11.3 The Contractor shall provide the Contract Administrator with a certificate(s) of insurance, in a form satisfactory to the City Solicitor, at least two (2) Business Days prior to the commencement of any Work on the Site but in no event later than the date specified in C4.1 for the return of the executed Contract.
- D11.4 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.

## **D12. PERFORMANCE SECURITY**

- D12.1 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.
- D12.1.1 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.

D12.2 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.

### **D13. SUBCONTRACTOR LIST**

D13.1 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.

### **D14. DETAILED WORK SCHEDULE**

D14.1 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.

D14.2 The detailed work schedule shall consist of the following:

- (a) a critical path method (C.P.M.) schedule for the Work;
- (b) a Gantt chart for the Work based on the C.P.M. schedule; and
- (c) a daily manpower schedule for the Work

all acceptable to the Contract Administrator.

D14.3 Further to D14.2(a), the C.P.M. schedule shall clearly identify the start and completion dates of all of the following activities/tasks making up the Work as well as showing those activities/tasks on the critical path.

D14.4 Further to D14.2(b), the Gantt chart shall show the time on a weekly basis, required to carry out the Work of each trade, or specification division. The time shall be on the horizontal axis, and the type of trade shall be on the vertical axis.

D14.5 Further to D14.2(c), the daily manpower schedule shall list the daily number of individuals on the Site for each trade.

## **SCHEDULE OF WORK**

### **D15. COMMENCEMENT**

D15.1 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.

D15.2 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 D9;
  - (ii) evidence of the workers compensation coverage specified in C6.15;
  - (iii) the Safe Work Plan specified in D10;
  - (iv) evidence of the insurance specified in D11;
  - (v) the performance security specified in D12;
  - (vi) the Subcontractor list specified in D13;
  - (vii) the detailed work schedule specified in D14.
- (b) the Contractor has attended a pre-construction meeting with the Contract Administrator, or the Contract Administrator has waived the requirement for a pre-construction meeting.
- (c) permitting is in place for all construction.

D15.3 The Contractor shall commence the Work on the Site within seven (7) Working Days of receipt of the letter of intent.

D15.4 The City intends to award this Contract by August 15, 2014

D15.4.1 If the actual date of award is later than the intended date, the dates specified for Commencement, Critical Stages, Substantial Performance, and Total Performance will be adjusted by the difference between the aforementioned intended and actual dates.

## **D16. WORKING DAYS**

D16.1 Further to C1.1 (jj), the Contract Administrator's determination of whether or not atmospheric and Site conditions are such that a Working Day is deemed to have elapsed may be based at one time on one type of work while at another time a Working Day may be based on another type of work. When more than one type of major work is involved, the quantity of equipment that must be able to work in order to meet the requirements of a Working Day may vary considerably from that specified in the General Conditions.

D16.2 In the event that incidental work is behind schedule which, in the opinion of the Contract Administrator, should have been or could have been carried out by the Contractor in conjunction with or immediately following work of a major type, the City hereby reserves the right to charge Working Days on the incidental work until such time as it is up to schedule.

D16.3 When the major type of work involves restoration of the site to the condition it was prior to rainfall, Working Days shall not be charged.

D16.4 The Contract Administrator will furnish the Contractor with a daily record for each major type of work showing various information concerning the equipment, the time it worked, could have worked and Working Days charged. This report is to be signed each day by an authorized representative of the Contractor.

## **D17. CRITICAL STAGES**

D17.1 The Contractor shall achieve critical stages of the Work in accordance with the following requirements:

- (a) Design of site layout and spray pad by August 29, 2014.
- (b) Permitting application in place by September 19, 2014
- (c) Construction start by September 22, 2014

## **D18. SUBSTANTIAL PERFORMANCE**

D18.1 The Contractor shall achieve Substantial Performance by October 31, 2014.

D18.2 When the Contractor considers the Work to be substantially performed, the Contractor shall arrange, attend and assist in the inspection of the Work with the Contract Administrator for purposes of verifying Substantial Performance. Any defects or deficiencies in the Work noted during that inspection shall be remedied by the Contractor at the earliest possible instance and the Contract Administrator notified so that the Work can be reinspected.

D18.3 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.

## **D19. TOTAL PERFORMANCE**

D19.1 The Contractor shall achieve Total Performance by May 29, 2015.

D19.2 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.

D19.3 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.

## **D20. LIQUIDATED DAMAGES**

D20.1 If the Contractor fails to achieve critical stages, Substantial Performance or Total Performance in accordance with the Contract by the days fixed herein for same, the Contractor shall pay the City the following amounts per Calendar Day for each and every Working Day following the days fixed herein for same during which such failure continues:

- (a) Design of site layout and spray pad – five hundred dollars (\$500.00);
- (b) Permitting applications in place – five hundred dollars (\$500.00);
- (c) Start of construction – five hundred dollars (\$500.00);
- (d) Substantial Performance – five hundred dollars (\$500.00);
- (e) Total Performance – five hundred dollars (\$500.00).

D20.2 The amounts specified for liquidated damages in D20.1 are based on a genuine pre-estimate of the City's losses in the event that the Contractor does not achieve critical stages, Substantial Performance or Total Performance by the days fixed herein for same.

D20.3 The City may reduce any payment to the Contractor by the amount of any liquidated damages assessed.

## **CONTROL OF WORK**

### **D21. JOB MEETINGS**

D21.1 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.

D21.2 The Contract Administrator reserves the right to cancel any job meeting or call additional job meetings whenever he/she deems it necessary.

### **D22. PRIME CONTRACTOR – THE WORKPLACE SAFETY AND HEALTH ACT (MANITOBA)**

D22.1 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).

### **D23. THE WORKPLACE SAFETY AND HEALTH ACT (MANITOBA) – QUALIFICATIONS**

D23.1 Further to B10.6, 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 B10.6.

## **D24. SAFETY**

- D24.1 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.
- D24.2 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.
- D24.3 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;
  - (f) fire hazards in or about the Work are eliminated;

## **D25. SITE CLEANING**

- D25.1 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.
- D25.1.1 As the Work progresses, the Contractor shall remove any Plant and Material not required for the performance of the remaining Work. He 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.
- D25.1.2 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.

## **D26. INSPECTION**

- D26.1 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.
- D26.2 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.

## **D27. DEFICIENCIES**

- D27.1 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.
- D27.2 If the Work or any part thereof is taken out of the Contractor's control pursuant to C18.7, all Plant and Material, and the interest of the Contractor in all licences, powers and privileges acquired, used or provided by the Contractor under the Contract shall be assigned by the Contractor to the City without compensation to the Contractor.
- D27.3 The City shall have the right to take possession of and use any of the Contractor's material and property of every kind provided by the Contractor for the purpose of the Work, and to procure other Plant or Material for the completion thereof.
- D27.4 When the Contract Administrator certifies that any Plant, Material or any interest of the Contractor referred to in D27.2, is no longer required for the purposes of the Work, or that it is not in the best interest of the City to retain that Plant, Material or interest, it shall revert to the Contractor.

## **MEASUREMENT AND PAYMENT**

### **WARRANTY**

#### **D28. WARRANTY**

- D28.1 Notwithstanding C13.2, the warranty period shall begin on the date of Total Performance and shall expire two (2) year thereafter, except where longer warranty periods are specified in the respective Specification sections, unless extended pursuant to C13.2.1 or C13.2.2, in which case it shall expire when provided for thereunder.
- D28.1.1 For the purpose of Performance Security, the warranty period shall be two (2) years.
- D28.2 Notwithstanding C13.2, the Contract Administrator may permit the warranty period for a portion or portions of the Work to begin prior to the date of Total Performance if a portion of the Work cannot be completed because of unseasonable weather or other conditions reasonably beyond the control of the Contractor but that portion does not prevent the balance of the Work from being put to its intended use.
- D28.2.1 In such case, the date specified by the Contract Administrator for the warranty period to begin shall be substituted for the date specified in C13.2 for the warranty period to begin.

**FORM H1: PERFORMANCE BOND**  
(See D12)

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. 592-2014

FOR THE DESIGN AND CONSTRUCTION OF LINDSAY WILSON SPRAY PARK

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

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

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

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

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

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

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

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

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

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

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

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

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

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



**FORM H2: IRREVOCABLE STANDBY LETTER OF CREDIT  
(PERFORMANCE SECURITY)**  
(See D12)

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

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

RE: PERFORMANCE SECURITY – RFP NO. 592-2014

FOR THE DESIGN AND CONSTRUCTION OF LINDSAY WILSON SPRAY PARK

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

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

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

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

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

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

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

Partial drawings are permitted.

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

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

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

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

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

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

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

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

This credit is subject to the Uniform Customs and Practice for Documentary Credit (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*.

<u>Drawing No.</u>	<u>Drawing Name/Title</u>
CP-1	Conceptual Site Design
CP-2	Conceptual Grading Plan
SCD-152B	Chain link fencing with P.T. Posts

#### E2. SOILS INVESTIGATION REPORT

- E2.1 Contractor to provide soil investigation report. Refer to E39.

### GENERAL REQUIREMENTS

#### E3. COMPLETE PROJECT

- E3.1 The Contractor is to deliver a complete project including all permits, inspections, demolition/removals, connections, tie-ins, restorations, etc. required to operate and maintain the project.

#### E4. WORK BY OTHERS

- E4.1 The City of Winnipeg will have regular maintenance staff working in the area. The Contractor is to ensure that all personnel have safe access to complete their works.
- E4.2 Picnic shelter to be supplied and installed by Island Lakes Community Group. Contractor to coordinate with Community Group for shelter base design and construction.
- E4.3 The consultants are to coordinate with Contract Administrator for all site design

#### E5. EXISTING SERVICES AND UTILITIES

- E5.1 No responsibility will be assumed by the City or the Contract Administrator 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 and the Contract Administrator 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.

## **E6. ACCESS TO SITE**

- E6.1 Access to the Site as required by the Contractor shall be provided and maintained by the Contractor at his own expense and approved by the Contract Administrator.
- E6.2 The Contractor's operations shall be limited to the minimum area necessary for undertaking the Work and he shall be responsible for all damage resulting from his Work on private or public property.

## **E7. SITE CONDITION**

- E7.1 The Contractor shall examine the Site and make themselves familiar with the existing conditions (both above and below grade) and nature of Work to be done.
- E7.2 Surface and sub-surface conditions shown on the Drawings and included herein are provided for general information and variations there from shall not affect the terms of the Contract.
- E7.3 The Contractor shall set all necessary control lines, benchmarks, survey, elevation stakes and layout in accordance with the individual Site conditions and in consultation with the Contract Administrator.

## **E8. DAMAGE TO EXISTING STRUCTURES, TREES AND PROPERTY**

- E8.1 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 the Contract Administrator, and the cost of which shall be borne entirely by the Contractor. The Contractor shall also indemnify and save harmless the City and the Contract Administrator from all claims made directly or indirectly against it in respect to any such damage.

## **E9. PERMITS, NOTICES, LICENCES, CERTIFICATES, LAWS AND RULES**

- E9.1 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.
- E9.2 The Contractor shall comply with all laws, ordinances, rules and regulations that would relate to the Work.
- E9.3 All notices, consents, approvals, statements, authorizations, documents or other communications to the City shall be submitted to the Contract Administrator.
- E9.4 All Work shall be performed in compliance with the Manitoba Workplace Health and Safety Act.
- E9.5 All Work shall be performed in compliance with the Manitoba Workplace Health and Safety Fall Protection guidelines.
- E9.6 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.

## **E10. STAKES AND MARKS**

- E10.1 The Contractor will mark, to the extent he determines to be necessary, the location, alignment and elevation of the Work by means of stakes or marks, for review and approval by the Contract Administrator. The Contractor shall make the completed Works conform to the lines and marks thus approved and indicated.
- E10.2 The Contractor shall notify the Contract Administrator immediately of the disturbance of any such stakes or marks. The cost of correcting any errors arising out of neglect of the Contractor to so notify the Contract Administrator shall be borne entirely by the Contractor, as well as the cost of replacing any disturbed stakes or marks.
- E10.3 Before commencing Work, the Contractor shall satisfy himself as to the meaning and correctness of all stakes and marks and no claims shall be entertained by the City on account of any alleged inaccuracies. If any error is suspected in the Drawings, Specifications or the directions of the Contract Administrator, Work shall be discontinued until the errors are rectified, but no claims shall be made on account of any delay occasioned thereby.
- E10.4 The Contractor shall determine and provide all dimensions and elevations measured from the stakes or marks.
- E10.5 The Contract Administrator shall be advised of the staking of the play area layout at least twenty-four (24) hours in advance in order that the layout may be inspected and adjusted as required prior to construction. The cost of correcting any errors arising out of neglect of the Contractor to so notify the Contract Administrator shall be borne entirely by the Contractor.

## **E11. PEDESTRIAN SAFETY AND TRAFFIC MANAGEMENT**

- E11.1 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 is Working near them. Any damage caused by the negligence of the Contractor or his SubContractors to the adjacent Works or properties, shall be promptly repaired by him at his own expense, to the satisfaction of the Contract Administrator.
- E11.2 The Contractor shall, during the construction of this project, maintain safe, accessible, access to the adjacent facilities at all times.
- E11.3 The Contractor shall isolate the work Site with temporary fencing. These shall be erected and maintained as required for the duration of the construction period.
- (a) Orange safety fencing will not be accepted as sufficient to isolate the site.
- E11.4 Ambulance/Emergency vehicle access must be maintained at all times.
- E11.5 Site enclosures shall be considered incidental to the Contract Work.

## **E12. PROTECTION OF THE SURVEY INFRASTRUCTURE**

- E12.1 Notwithstanding clause 4 "Protection of Survey Bars" of the Standard Provisions; Current legislation, The Surveys Act, places the onus on those undertaking construction to protect the Survey Infrastructure from damage as a result of their activity.
- E12.2 Further to C:6.26 (g), at least seventy-two (72) hours prior to the commencement of the On-Site Work the Contractor shall contact the City of Winnipeg, Geomatics Services Branch at 986-4826 (8:00 am to 4:00 pm Monday to Friday excluding holidays) to obtain underground clearance. Geomatics Services will locate and mark all known outline survey monuments and geodetic control monuments and confirm the physical condition of those monuments upon completion of construction, at no cost to the Contractor.
- E12.3 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 forty-eight (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.

- E12.4 Survey monuments and geodetic control monuments at or adjacent to the Site, not in the line of the proposed construction that are damaged or disturbed by the Contractor shall be replaced or relocated by the City or its agent and all associated costs shall be paid for by the Contractor. An approximate estimate of the costs involved to restore a legal survey monument is \$1,000 per bar and \$3,000 per control monument. Contractors must ensure their landscaping and other subcontractors are aware of this clearance procedure and the potential restoration costs.
- E12.5 Where possible, amounts owed to the City in accordance with the above will be deducted from any payments to be made by the City to the Contractor

### **E13. TREE PROTECTION**

- E13.1 The Contractor shall take the following precautionary steps to prevent damage from construction activities to existing park trees within the limits of the construction area.
- (a) The Contractor shall not stockpile materials and soil or park vehicles and equipment within 2 metres of trees.
  - (b) Trees identified to be at risk by the Contract Administrator are to be strapped with 25x100x2400mm wood planks, or suitable protection as approved by the Contract Administrator.
  - (c) Excavation shall be performed in a manner that minimizes damage to the existing root systems. Where possible, excavation shall be carried out such that the edge of the excavation shall be a minimum of 1.5 times the diameter (measured in inches), with the outcome read in feet, from the closest edge of the trunk. Where roots must be cut to facilitate excavation, they shall be pruned neatly at the face of excavation.
  - (d) Operation of equipment within the drip line of the trees shall be kept to a minimum required to perform the Work required. Equipment shall not be parked, repaired, refuelled; construction materials shall not be stored, and earth materials shall not be stockpiled within the drip lines of trees. The drip line of a tree shall be considered to be the ground surface directly beneath the tips of its outermost branches. The Contractor shall ensure that the operations do not cause flooding or sediment deposition on areas where trees are located.
- E13.2 Where tree protection fencing is called for the Contractor shall install orange safety fencing with a minimum height of 1.2m using t-rail metal stakes at a maximum spacing of 2m o.c. Safety fencing shall be securely fastened to the trail stake.
- E13.3 Contractor shall maintain tree protection fence until such time as construction is sufficiently well progressed as to ensure that vehicular traffic and movement of heavy materials is no longer necessary to complete the remaining works.
- E13.4 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.
- E13.5 Tree protection shall be incidental to the work and will have no separate measurement and payment.

### **E14. LAYOUT OF WORKS**

- E14.1 The Contractor will Work from layout information provided in the construction drawings and will be responsible to provide a full time experienced survey crew to layout and continuously check the locations and elevations of all components and paving patterns of the Work included in this Contract.

- E14.2 The Contractor must provide all necessary survey equipment in good operating conditions.
- E14.3 The Contractor shall supply all materials (painting, stakes, ribbon, markers, etc) and labour necessary for the accurate location and setting out of the Work.
- E14.4 From time to time the Contract Administrator may have a survey crew on the Site, but they will check the Work done by the Contractor's survey personnel only. The checking of the Work by the City's surveyors will not relieve the Contractor of any responsibility of the correctness of the Work. Should any structure or paving or any part thereof be installed in any location other than that shown on the Drawings, then the error shall be rectified by the Contractor all at his own expense and at the satisfaction of, and in a manner specified by the Contract Administrator.

## **E15. EXISTING UNDERGROUND SERVICES**

- E15.1 The Contractor's attention is drawn to the existing underground lines or services that may be located in the area of the Work.
- E15.2 The Contractor shall take all necessary precautions when performing the Work to ensure that no damage is done to these existing services.
- E15.3 No responsibility will be assumed by the Owner for correctness or completeness of the Drawings, when provided, with respect to the existing utilities, pipes or other objects either underground or on the surface, 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.
- E15.4 All costs in connection with this item including location of the existing service, repairs to any existing services damaged by the construction operation, etc. shall be included in the unit prices bid for supply and installation of the items included under this Contract.
- E15.5 The Contractor will be required to make his own arrangements in connection with the temporary use of lighting, power, gas, sewer, water or other utilities, and pay all costs in connection therewith.
- E15.6 All necessary permits, fees and other like expenses as well as the cost of temporary connections to existing facilities shall be arranged and paid for by the Contractor.

## **E16. PRODUCT APPROVALS**

- E16.1 The Contractor shall, following award, prepare a complete list of all material to be used on the project and submit the list to the Contract Administrator seventy two (72) hours prior to start of construction.
- E16.2 The Contractor shall only use material which has been approved by Specification CW 3710-R1 or by the Contract Administrator. The list shall provide the product, the manufacturer and the supplier.
- E16.3 Other than required to be done by the Contractor under the Work of this contract, all necessary precautions shall be exercised by the Contractor so as not to remove, disturb, or damage any existing plant material, pavements, streets, roads, boulevard, poles, hydrants, water pipes, gas pipes, electrical wires, cables, conduits, sewers or other existing facilities and equipment at the Site of the Work. For all damage incurred thereto in the performance of the Work, the Contractor shall upon instructions from the Contractor Administrator, either replace or repair such damage, whichever may be deemed necessary in the opinion of, and acceptable to the Contract Administrator and the costs of which shall be borne entirely by the Contractor.
- E16.4 All workmanship and materials furnished and supplied under this Specification are subject to close and systematic inspection and testing by the Contract Administrator. The Contract Administrator reserves the right to reject any materials or Works which are not in accordance with the requirements of the Specifications.



E16.5 The Contractor shall be wholly responsible for the supply, safe storage, and handling of all materials set forth in this specification, and the control of all operations incidental thereto notwithstanding any inspection or approval that may have been previously given.

#### **E17. DAMAGE TO STREETS AND STRUCTURES**

E17.1 The Contractor is to be advised of the following existing Site features to be retained and protected to the City of Winnipeg Standards:

- |             |                             |                 |
|-------------|-----------------------------|-----------------|
| a) trees    | e) light standards          | i) hydro poles  |
| b) curbs    | f) fire hydrants            | j) catch basins |
| c) sidewalk | g) street signs             | k) curb inlets  |
| d) sod      | h) all underground services | l) fences       |

#### **E18. PERMITS, NOTICES, LICENCES, CERTIFICATIONS, LAWS, AND RULES**

E18.1 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.

E18.2 The Site Development Permits (including lot grading and damage deposits) will be obtained and paid for by Owner prior to commencement of construction. A copy of this permit will be provided to the Contractor upon award of Contract.

E18.3 The Contractor shall comply with all laws, ordinances, rules, and regulations that would relate to the Works.

#### **E19. CONSTRUCTION FACILITIES AND STAGING**

E19.1 The Contractor shall be responsible for providing his own storage and handling of all his/her construction operations. The use of public right-of-ways will not be allowed.

#### **E20. EXCAVATION, REMOVALS, SUBGRADE COMPACTION AND ROUGH GRADING**

E20.1 This specification is supplemental to CW 3110 and CW 3170. The Work of this section comprises the furnishing of all labour, equipment and materials required to complete the excavation fill, grading and related Work including, but not necessarily confined to, the following:

- (a) Excavation, removals, disposal, subgrade compaction and rough grading of the existing Site for the construction of asphalt pathway, concrete sidewalk, concrete pad for shelter, spray pad, planting beds and sodded areas to the design requirements noted on the Drawings, approved on Site by the Contract Administrator, less the appropriate surface finish allowance.
- (b) Stockpile suitable, approved material on Site for reuse (clean topsoil, clean earth fill). Remove and dispose of unsuitable material.
- (c) Earthwork and Grading of the existing Site (cut and fill including supply, placement and compaction of subgrade and fill material) to ensure positive drainage in all paved areas, and swales and adjacent sodded/seeded areas.
- (d) Excavation, removals, and disposal of unsuitable subgrade and replacement with compacted granular base material for all paved areas.
- (e) Remove, stockpile and reinstall site sign and planter.

#### **Materials**

E20.2 All fill materials shall conform to CW 3170

#### **Construction Methods**

- E20.3 The Contractor shall remove and dispose of all surfaces within the area of work as required to construct all new site work.
- E20.4 The Contractor shall construct the Site within the limits indicated to the design elevations and gradients noted on the Conceptual Grading Plan, less the appropriate surface treatment depths specified and shall excavate, remove and dispose of all unsuitable materials of whatever nature encountered.
- E20.5 The Contractor shall construct all sub-grades in accordance with Specification CW 3110. Excavation will be performed as per Item 3.2 of CW 3110. The Contractor shall remove existing pavement in accordance with 3.1 of CW 3110. Unsuitable Excavated material shall be disposed of as per Item 3.2 of CW 3110. All surplus material will be disposed of in accordance with Item 3.2 of CW 3110.
- E20.6 The Contractor shall restrict his activities strictly to within the limits of the Work, unless receiving prior written approval from the Contract Administrator. The Contractor shall take all precautions to prevent damage to traffic structures, pole lines, existing trees, Site services and adjacent property and he shall be liable for any damages occurring in the performance of this Work.
- E20.7 The Contractor shall examine the Site and make themselves familiar with the existing conditions and the nature of the Work to be done.
- E20.8 The Contractor shall prevent damage to surface or underground utility lines which are to remain and make good any damage.
- E20.9 The Contractor shall excavate to the design grades shown less the appropriate allowance for surface treatment and shall excavate, remove and dispose of all unsuitable materials of whatever nature encountered.
- E20.10 Excavated or graded materials to be approved before use as fill for grading Work. Protect such approved material from contamination. Stockpile in approved locations on Site. Protection and stockpiling are incidental to unit prices bid for excavation, removals and rough grading.
- E20.11 The Contractor shall excavate topsoil as per CW 3170 Section 9.2. Topsoil excavation is incidental to the unit prices bid for excavation, removal and rough grading.
- E20.12 The Contractor shall ensure that upon completion of the removal operations the Site is left in a neat condition free from debris, etc. for approval by the Contract Administrator prior to placing base courses and clean fill.
- E20.13 Except for drainage swales, berms and embankments indicated, the design gradient for all other areas shall be considered to be straight grade between the design elevations shown. Changes in grade at swales, berms, embankments and field shall be gently contoured as directed by the Contract Administrator to provide future ease of grass mowing operation.
- E20.14 The Contractor is advised that there may be useable topsoil, clay and gravel fill on Site. All suitable material will be reviewed and approved by the Contract Administrator and then re-used on Site. The re-use of this material on Site may reduce the quantity of imported topsoil, gravel and clean earth fill required. The Contractor shall re-use existing Site material prior to delivering new material to Site.
- E20.15 Contractor to remove, store securely and reinstall the existing site sign and planter. Locations to be indicated on site plans for approval.
- E20.16 No direct payment will be made for placing and grading of existing fill as all costs for this Work shall be included in the lump sum bid for rough grading within the limit of the Work.
- E20.17 Compaction shall include the use of sheep's foot or other suitable compaction equipment as approved by the Contract Administrator to achieve a minimum compaction of 98% Standard Proctor Density below all paved areas, and 95% Standard Proctor Density in all other areas disturbed under this Contract.

E20.18 The Contractor shall construct the compacted sub-grade surface to the following minimum depths below the grades shown on the Drawings for each area:

- |                              |        |
|------------------------------|--------|
| (a) Concrete Sidewalk        | 275mm  |
| (b) Asphalt Pathway          | 425mm  |
| (c) Sodded Areas             | 100mm  |
| (d) Spray Pad                | 400mm  |
| (e) Concrete Pad for Shelter | 400mm  |
| (f) Planting Bed             | 1000mm |

E20.19 Following earth moving, rough grading and compaction, the Work areas shall be fine graded to provide a maximum deviation of 50mm in 10 metres from the design grade with no low areas to hold water. The finished surface of all disturbed areas shall be dragged and smoothed in such a manner that there are no loose soil particles greater than 50mm in maximum dimension.

E20.20 Measurement and payment

E20.21 Rough grading will be paid for at the contract lump sum price for "Rough grading" as specified herein, which price shall be payment in full for performing all operations herein and all other items incidental to the Work included in this Specification

E20.22 No separate measurement or payment shall be made for excavation and rough grading as this Work is incidental to the unit prices bid for supply and installation of the final surface treatment. No separate measurement or payment for relocation of sign and planter.

## **E21. MATCHING EXISTING GRADES**

E21.1 Wherever the proposed paving, or sod meets existing hard surface, or property line, the Contractor shall construct the proposed element to an acceptable grade, as directed by the Contract Administrator, to ensure that proper drainage and accessibility are maintained

## **E22. CONCRETE SIDEWALK**

### **Description**

E22.1 Further to City of Winnipeg Specification CW 3325 this section covers the supply and installation of concrete sidewalk.

E22.2 Materials to be to CW 3325.

E22.3 Compacted base to be 150mm thick granular A base.

E22.4 Sidewalk to be 125mm thick with reinforcing mat as per the drawings.

E22.5 Thickened edge of sidewalk will be incidental to the unit prices bid for concrete sidewalk.

### **Measurement and Payment**

E22.6 Supply and installation of concrete sidewalk will be measured on an area basis. The surface area to be paid for shall be the total number of square metres supplied in accordance with the specifications and accepted by the Contract Administrator, as computed from measurements made by the Contract Administrator.

## **E23. CAST-IN-PLACE CONCRETE**

### **Description**

E23.1 The Work of this section comprises the furnishing of all labour, equipment and materials required to complete the supply and installation of cast-in-place concrete base for picnic shelter,

concrete pad for spray pad, concrete footings for site furniture and fencing as shown on the drawings and as hereinafter specified, including, but not necessarily confined to the following:

- (a) Excavation
- (b) Granular fill Work as required
- (c) Supply, erection and removal of all formwork as required
- (d) Design of concrete mixes
- (e) Supply and install of concrete piles and base for picnic shelter
- (f) Supply and install of concrete pad for spray pad
- (g) Supply, placing and curing of bases for bench and waste receptacle
- (h) Supply, placing and curing of bases for fencing
- (i) Supply and installation of all joint material in concrete Work.
- (j) Supply and Installation of compacted granular base courses not supplied by other sections.
- (k) Clean-up.

E23.2 The following items of Work are specified under other sections of the specifications and are not included in this section:

- (a) Supply of miscellaneous metal anchors, bolts, inserts, etc.

E23.3 Contractor is to coordinate with the local community group for the design and construction of the base for the picnic shelter. The shelter and all anchors, connections, wiring, etc. are to be supplied by the community group. All coordination to be done through the Contract Administrator. Size of shelter is to be as per the conceptual drawings.

## Materials

E23.4 All concrete Work shall be in accordance with CAN3-A23.1-Concrete Materials and Methods of Concrete Constructions. Proportion normal density concrete in accordance with CAN3-A23.1 to govern the following properties.

E23.5 Concrete for cast-in-place bases as follows:

Cement: Type 50  
Max. Coarse Aggregate: 40mm  
Min Compressive Strength at 28 days = 25 Mpa  
Min. Cement Content: 310 kg/cu.m  
Max. Water Cement Ratio: 0.45  
Class of Exposure: S-2  
Max. Slump: 90mm ± 20mm  
Air Content: 4 to 7%  
Flyash content: Max 15% of Cementitious Material

E23.6 Fine aggregate shall consist of natural sand or manufactured sand and shall conform to all requirements of CAN3.A23.1.

E23.7 Coarse aggregate shall consist of hard, strong, uncoated durable particles of crushed stone, gravel or approved combination thereof and shall be free from an excess of thin, elongated or soft pieces, frozen lumps, vegetable matter or other deleterious matter, and shall conform to all the requirements of CAN3-A23.1. Maximum size of coarse aggregate shall be 20 mm.

E23.8 Water for concrete shall be clean and free from injurious amounts of oil, acid, alkali, salts, silt, organic matter or other deleterious matter. The quality of the water shall be equal to or better than that of potable water.

E23.9 A non-detergent type of air-entraining admixture, supplied in liquid form, shall be metered into the mix. The total air in the placed concrete shall be 5% - 8%.

- E23.10 Curing compound shall be Sternson ritcure or approved equal, in accordance with B6.
- E23.11 Bonding agent shall be Sternson ST 431 Epoxy Bonding Agent.
- E23.12 Form coating shall be Sternson's Formseal or approved equal, in accordance with B6.
- E23.13 Compacted granular base courses for all cast in place concrete Works shall be in accordance with City of Winnipeg Specifications.
- E23.14 The Contract Administrator may engage a fully qualified Inspecting Engineer and Testing Laboratory to:
- (a) Inspect the pile excavations to determine that they have been augured to the specified depth, are of the specified size, are clean and level, and meet the design criteria.
  - (b) Take test cylinders during concrete placing and carry out compression tests to determine whether concrete produced complies with these Specifications.
  - (c) Take compaction tests of compacted granular sub-base and sub-grade material.
  - (d) Submit reports to the Contract Administrator of all materials, concrete, and caisson tests and inspections.
  - (e) Three concrete test cylinders to be taken for pile cast. One cylinder from each group shall be tested at seven (7) days, one at 14 days and the remainder at 28 days. Sampling and testing procedures shall be according to CAN3-A23.1 latest edition.
- E23.15 Curing and Protection
- (a) Curing shall immediately follow the finishing operation as in CSA A23.1, Section 18 and shall continue for a minimum of five (5) days at 10°C.
  - (b) When the outside temperature is less than 4°C, the temperature of the concrete shall be maintained between 10°C and 21°C for the required curing period.
  - (c) When heat required for curing is being removed, the maximum temperature change shall not exceed 2.5°C per hour or 27°C, in any 24 hour period.
  - (d) Unless adequate protection is provided, no concrete shall be placed during rain, sleet or snow.
  - (e) Rainwater shall not be allowed to increase the mixing water nor damage the surface finish.
  - (f) All exposed concrete to have sack rubbed finish.

### **Excavation for Piling**

- E23.16 Water jetting methods of excavation will not be permitted. The bearing surface shall be inspected and any loose material shall be cleaned out prior to casting concrete.
- E23.17 If, in the opinion of the Contract Administrator, casing is required to prevent the sides of the augured hole from sloughing in the casing shall be supplied and installed, at no cost to the City. Sleeving will not be allowed for piles less than 600 mm diameter. The diameter of casing supplied shall be equal to the specified diameter of the foundation being constructed. If required, overboring shall be carried out to allow the installation of the casing, if so approved by the Contract Administrator. No additional payment will be made for overboring. The casing shall be designed to withstand installation, withdrawal and earth pressure forces. The casing shall be withdrawn as the concrete is poured ensuring that the casing is at least 1 metre below the top of the freshly placed concrete until all concrete in the foundation is placed.
- E23.18 The pile excavation shall be kept dry at all times. The Contractor shall have on hand sufficient pumps to satisfy this requirement.
- E23.19 Rocks or boulders hindering the continuation of drilling shall be removed in whole or part, using approved methods.

### **Pile Concrete Work**

- E23.20 The pile concrete shall be cast no later than 24 hours after the excavation has been completed.
- E23.21 The reinforcing cage shall be placed in the pile excavation prior to starting the concreting. Spacers shall be provided to keep the reinforcing cage in its correct location.
- E23.22 Reinforcement shall be clean, and free from all coatings, including ice, loose rust, dried concrete, which tend to reduce bond.
- E23.23 Reinforcement shall be formed accurately and secured in pile shaft and to required ties and spacers with annealed wire ties or suitable clips so that position and concrete cover is assured.
- E23.24 Vertical or bent bars shall extend above the top of pile shaft as shown to provide anchorage for the grade beam.
- E23.25 Reinforcing bars kinked, twisted, bent past a right angle, or reduced in cross section, will be rejected.
- E23.26 Concrete consistency shall be such that concrete works readily into corners and around reinforcement without segregation of materials or the collection of free water on the surface.
- E23.27 Do not place concrete until piles, shafts, and/or bells have been inspected.
- E23.28 Place concrete using "elephant trunk" or special chutes which will prevent segregation of materials, ensure a practically continuous flow of concrete at the delivery end, and limit the vertical height of free fall of the concrete to 3 metres.
- E23.29 Concrete placing shall be continuous from bottom to top of pile or caisson, and puddling or rodding carried on constantly to bring air bubbles to the surface and produce a uniform, homogeneous structure.
- E23.30 Mechanical vibration shall be carried out continuously during placing of concrete in piles.
- E23.31 Work concrete completely around reinforcement by rodding, spading and mechanical vibration. Vibrators shall vibrate at not less than 5000 impulses per minute and shall be operated by personnel experienced and qualified in their use.
- E23.32 Concrete shall be kept moist for at least the first 7 days after placing and the temperature of the concrete maintained above 10°C during this time.
- E23.33 If upper soil stratum is dry and there is danger of the concrete losing moisture thereto, water shall be added to the soil by forming a depression around the pile top and ponding continuously for a period of 7 days.
- E23.34 Whenever the temperature of the surrounding air is below or is likely to fall below 5°C during the 4 day period immediately following concrete placing, artificial heating, housing and/or protective covering shall be provided for the pile tops to maintain concrete temperature at or above 10°C.
- E23.35 No dependence shall be placed on salt or other chemicals for the prevention of freezing.

### **Placing of Concrete for Slab**

- E23.36 Placing of concrete shall be in accordance with CAN3-A23.1
- E23.37 No concrete shall be placed until formwork, insulation, reinforcing steel, sleeves, hangers, anchors, inserts, etc., required to be built into the concrete have been inspected by the Contract Administrator.
- E23.38 Before placing concrete on bearing strata, notify the Contract Administrator so that she may make an inspection of the exposed bearing surface.

- E23.39 No concrete shall be placed in water or upon frozen surfaces.
- E23.40 Before placing any concrete, all debris shall be removed, forms shall be thoroughly oiled except where form oil will be detrimental to the finished surface. Equipment shall be cleaned or of hardened concrete and foreign material.
- E23.41 All concrete shall be thoroughly vibrated during pouring. Precautions shall be taken to prevent separation or loss of ingredients while transporting the concrete. At no time shall concrete be allowed to a free fall of more than 1.5 m.
- E23.42 Conveying equipment shall be on temporary runways built over the floor system and runway supports shall not bear upon the fresh concrete.
- E23.43 Placement of concrete shall be carried out as a continuous operation until the placing of an individual section is completed. Concrete shall be carefully worked around reinforcement and embedded fixtures, along surfaces and into corners of forms. Vibrators shall be used, and operated under experienced supervision; forms must be constructed to withstand their action.
- E23.44 The Contractor is advised that no joints will be allowed in the slab except as directed on Site in conjunction with the Contract Administrator.

#### **Clean up and Damage**

- E23.45 Immediately on completion of all piles and foundations Contractor shall remove from Site all equipment, timbers, shores, excavated material, unused concrete, rubbish, etc., caused by his operations, and leave the Site clean, level and ready for placing of grade beams.
- E23.46 The Contractor shall be responsible for making good all areas damaged by his operations in connection with this Contract regardless of the limits of the Contract as shown on the Drawings.

#### **Measurement and Payment**

- E23.47 Supply and installation of reinforced concrete base (including piling) for picnic shelter will be measured and paid on a lump sum basis in accordance with the specifications and accepted by the Contract Administrator.
- E23.48 Supply and installation of reinforced concrete pad for spray pad will be measured on an area basis. The surface area to be paid for shall be the total number of square metres supplied in accordance with the specifications and accepted by the Contract Administrator, as computed from measurements made by the Contract Administrator.
- E23.49 No adjustments in price will be made should actual pile lengths in place be lesser or greater than anticipated by the Contractor.
- E23.50 No separate measurement or payment shall be made for C.I.P. concrete bases for site furniture or fencing as this Work is incidental to the unit prices bid for installation of those items.

#### **E24. MECHANICAL, PLUMBING, AND ELECTRICAL SYSTEMS**

- E24.1 The spray features system is to be a drain away system connected to city water service. Design of the system is to be approved by the Contract Administrator and City of Winnipeg prior to start of construction.
- E24.2 Primary control system including activation switch, timers, electronic sequencers and wiring schematics, controllers, valves, pressure regulators, ball valves etc. shall be provided.
- E24.3 Work to be performed by journeymen skilled tradesmen to the satisfaction of the Contract Administrator.
- E24.4 All plumbing and electrical must comply to all regulatory authorities that have jurisdiction and manufactures recommended practices.

- E24.5 All connections to existing services necessary to provide a complete working project shall be included. This includes, but is not limited to electrical and water.
- E24.6 Designs will respect the use of the areas and ensure the comfort and safety of the occupants.
- E24.7 Mechanical markings to be in accordance with the following and approved by the Contract Administrator:
- (a) Canadian General Standards Board (CGSB).
  - (b) CAN/CGSB-1.60[M89], Interior Alkyld Gloss Enamel.
  - (c) CAN/CGSB-24.3[92], Identification of Piping Systems
  - (d) CAN/CGSB-149.1[M95].
  - (e) CAN/CGSB-149.2[M91].
- E24.8 Controls:
- (a) Low lifecycle cost considering initial investment, daily operations, maintenance and expected lifespan.
  - (b) System to drain away so that there is no standing water at any time.
  - (c) Must comply with current Health regulations for water quality.
- E24.9 Piping
- (a) All fittings to be galvanized or PVC. All fasteners to be stainless steel.
  - (b) All water lines to have proper slope and drain capability and blow out valves for fall servicing.
  - (c) Piping to include a shock arrester.
  - (d) Drain lines are to be sized to permit draining of basin to prevent standing water.
  - (e) All PVC underground piping to be minimum of schedule 80.
  - (f) All supply lines to the features to be low pressure poly pipe approved for 100 psi.
  - (g) Drain lines are to gravity drain to facilitate winterization.
- E24.10 Mechanical
- (a) To be incorporated in free standing weatherproof cabinet enclosure housing all contacts and valves.
  - (b) Site shall have a rain sensor control to limit the use of the site during rain events.
  - (c) Site shall have a wind sensor mounted on the existing lights to limit spray during high wind.
- E24.11 Operations and maintenance manual to be provided.
- (a) Provide three (3) bound copies of the operation and maintenance manual detailing the operation and maintenance for all elements of the construction.
- E24.12 Training
- (a) Provide training on the operation and maintenance of the proposed system.
- E24.13 Electrical
- (a) All equipment must be CSA approved.
  - (b) Related to the mechanical system requirements.
  - (c) Related to the Site Lighting (if included in proposal).
  - (d) Grounding of all components within water play area.
  - (e) To meet all applicable requirements of authorities having jurisdiction.
  - (f) All electrical controls and equipment to be in a free standing weather proof enclosure.



- (g) Power Smart Program: The City has a Power Smart Agreement with Manitoba Hydro. Manitoba Hydro has the right to review the design, specifications, and drawings prior to construction. Contractor shall provide documentation normally required for the City to receive a Power Smart Grant from Manitoba Hydro.

E24.14 Periodic review during the construction phase

- (a) The Design Team shall be responsible for periodic review of construction progress and shall provide the results of said reviews to the Contract Administrator in writing.

**Measurement and Payment**

E24.15 Mechanical system for spray features will be paid for at the contract lump sum price for "Spray Pad Mechanical" as specified herein, which price shall be payment in full for performing all operations herein and all other items incidental to the Work included in this Specification.

E24.16 Electrical system for spray features will be paid for at the contract lump sum price for "Spray Pad Electrical" as specified herein, which price shall be payment in full for performing all operations herein and all other items incidental to the Work included in this Specification.

**E25. SPRAY FEATURES**

E25.1 In as much as possible given the constraints of budget and space, the design shall offer a mix of passive and interactive play.

- (a) Consideration should be given to features/components that the community can identify with.
- (b) For all ages but specific anticipated user groups are 0-4 yrs, 5-8 yrs, 9-12 yrs and caregivers.
- (c) Include a passive 'kiddie' area somewhat segregated from the more active play area with some preschool type features.
- (d) Trip, entanglement, strangulation hazards must be avoided.

E25.2 Site shall be accessible throughout with no curbs blocking access.

E25.3 All surfaces shall be straight to drain.

E25.4 Overspray zone to be 50% greater than manufacturer's specifications. Tall spray components to be installed in the middle of the spray pad to minimize overspray.

E25.5 Water play components:

- (a) Shall be from one manufacturer to assure compatibility of spare parts for fixtures.
- (b) Special consideration will be given to products that offer the ability to remove and relocate components to another site.
- (c) Bollard activator.
- (d) Minimum of moving parts.
- (e) Durable, vandal resistant anchors, finishes, treatments.
- (f) Ease of maintenance.
- (g) Adjustable controls – provide details of 'operation time', 'run time', etc. to manage water consumption. Controls to be programmable to allow flexibility in changing spray sequence.
- (h) Bases/Connections should permit the ability to shift components to other bases.
- (i) Component design is to enhance the safety of the spray pad.

## Measurement and Payment

E25.6 Supply and installation of spray features will be paid for at the contract lump sum price for "Spray features" as specified herein, which price shall be payment in full for performing all operations herein and all other items incidental to the Work included in this Specification.

### E26. CONCRETE SPRAY PAD

#### E26.1 General Considerations

- (a) Basin shall be sized to collect overspray to a minimum of 1.5 times the manufacturer's specified overspray.
- (b) Concrete pad, designed to support light truck use in a wet environment.
- (c) Sloped to drain towards return inlets. With straight line grade from high point to drains. Minimum 1.5% slope, maximum 3% slope.
- (d) Provide a slip resistant surface suitable for use in this type of installation and acceptable to the City.
- (e) If concrete surfacing is abutting a fence, extend the concrete 300mm beyond the outside of the fence to provide a mow strip and structurally reinforced edge.
- (f) Provide drain lines as required. Minimum of 2 drains with anti-vortex covers, ADA compliant, shall be provided for each drainage basin as appropriate to the design.
- (g) Rebar shall be epoxy coated.
- (h) Basin shall include an apron which shall include drain to site drains as shown on the Conceptual Grading Plan.
- (i) Apron shall be sized to collect overspray from the spray devices to a minimum of 50% greater than manufactures stated overspray.
- (j) Contractor shall prepare three samples of concrete finishes 60cm x 60cm with a light, medium and rough finish. Contract Administer and Community Services / PPD to approve finish samples prior to any concrete being poured.

#### E26.2 Operational Considerations

- (a) Ensure ease of access to vault / pump house, from the spray pad area by staff.
- (b) Hours of operation will be dependent on demand but are anticipated to be seven days per week from July 1 to August 31 from 11:30 to 5:00 pm.

### E27. SITE FURNITURE

#### Description

- E27.1 This specification covers the supply and installation of:
- (a) Tache style recycled plastic benches,
  - (b) Picnic tables,
  - (c) Expanded mesh waste receptacles

#### General

- E27.2 Store units in a protected location, immediately upon arrival on the Site.
- E27.3 Remove from Site any units that have been damaged during transportation and replace.

#### Products

- E27.4 Picnic Tables – Accessible Tache Style composite Tables as supplied by:

Brian Mayer @ 470-7747 and Marc Laurin @ 479-5489 or Tom Hendry @ 470-4834

Centralized Park Services  
City of Winnipeg  
960 Thomas Ave.  
Winnipeg MB R2L 2E1  
[BMayer@winnipeg.ca](mailto:BMayer@winnipeg.ca)  
[MLaurin@winnipeg.ca](mailto:MLaurin@winnipeg.ca) or  
[THendry@winnipeg.ca](mailto:THendry@winnipeg.ca)

Colours for picnic tables to be blue, and green.

- E27.5 Recycled Plastic Benches – 1.83m length Tache Style composite benches with back and armrests (black) as supplied by:

Aaron Lennon @ 986-5505  
Supervisor of Central Repair/Manufacturing Facility  
City of Winnipeg  
Fleet Management Agency Division  
Public Works Department  
215 Tecumseh St.  
Winnipeg. MB R3E 3S4

- E27.6 Expanded galvanized wire baskets as supplied by:

Aaron Lennon @ 986-5505  
Supervisor of Central Repair/Manufacturing Facility  
City of Winnipeg  
Fleet Management Agency Division  
Public Works Department  
215 Tecumseh St.  
Winnipeg. MB R3E 3S4

### Installation

- E27.7 Benches and picnic tables to be installed as per City of Winnipeg Specifications and details.
- (a) Waste Receptacle SCD-119
  - (b) Tache Bench SCD-120A
  - (c) Picnic Tables SCD-122A
- E27.8 Protect and maintain Site furnishings, including accessories, until acceptance of project Work.
- E27.9 Immediately remove from Site, damaged furnishing and accessories. Replace, repair, re-finish, or otherwise make good to approval of Contract Administrator.
- E27.10 No separate payment will be made for concrete foundation for site furniture. All Work is incidental to the unit prices bid for the items.
- E27.11 Expanded wire baskets to include chains and locks to secure on site.

### Measurement and Payment

- E27.12 Supply and installation of Tache benches will be measured and paid for at the contract unit price per item for "Supply and install bench", measured as specified herein and accepted by the Contract Administrator.
- E27.13 Supply and installation of the Picnic Tables will be measured and paid for at the contract unit price per item for "Supply and install Picnic Table", as measured and specified herein, and accepted by the Contract Administrator.

E27.14 Supply of expanded wire mesh waste receptacles will be measured and paid for at the contract unit price per item for "Supply and install waste receptacle", as measured and specified herein, and accepted by the Contract Administrator.

## **E28. FENCING**

### **Description**

E28.1 The following list generally describes the scope of this section:

- (a) Supply and installation of 1.2m height vinyl coated chain link fence with wood posts and rails

### **Materials**

E28.2 Minimum security requirements include 1.2m ht, transparent fencing

- (a) Vertical elements should comply with CSA guidelines for head entrapment and entanglement
- (b) Metal products to minimum galvanized or powder coated.
- (c) All wood to be pressure treated

E28.3 New fencing is required to control access to Island Lakes Boulevard as per drawing SCD-152B-R2.

### **Measurement and Payment**

E28.4 Supply and installation of 1.2m height chain link fence will be measured and paid on a linear meter basis. The length to be paid for shall be the total number of metres supplied in accordance with the specifications and accepted by the Contract Administrator, as computed from measurements made by the Contract Administrator.

## **E29. PORTABLE TOILET ENCLOSURE**

### **Description**

E29.1 The following list generally describes the scope of this section:

- (a) Supply and installation of portable toilet enclosure.

### **Materials**

E29.2 Minimum security requirements include 1.2m ht, transparent fencing

- (a) Vertical elements should comply with CSA guidelines for head entrapment and entanglement
- (b) Metal products to minimum galvanized or powder coated.
- (c) All wood to be pressure treated

E29.3 New fencing is required to control access to Island Lakes Boulevard as per drawing SCD-152B-R2.

### **Measurement and Payment**

E29.4 Supply and installation of portable toilet enclosure will be measured and paid on a lumpsum basis. The length to be paid for in accordance with the specifications and accepted by the Contract Administrator, as computed from measurements made by the Contract Administrator.

## **E30. PLANTING BED PREPARATION**

### **Description**

- E30.1 The following list generally describes the scope of this Section:
- (a) Cultivate subsoil;
  - (b) Supply and install drainage course and drainage pipe;
  - (c) Supply and install geotextile;
  - (d) Supply and install planting soil mixture in planters;
  - (e) Supply and install black granite mulch and geotextile.
- E30.2 Submit to the Contract Administrator samples of the following materials:
- (a) Planting soil mixture: 1 kg
  - (b) Bark nugget mulch: 500 g
  - (c) Geotextile

### **Materials**

- E30.3 Planting Soil: For mix imported topsoil with 20% peatmoss loose by volume, and 5% sand loose by volume. Incorporate bonemeal into planting soil at rate of 5 lbs /cu.yd. of soil mixture. Planting soil items to be comprised as follows:
- (a) Peatmoss: horticultural grade Class "A" decomposed plant material, fairly elastic and homogeneous. Free of decomposed colloidal residue, weed, sulphur and iron. To have pH value of 5.9 to 7.0, 60% organic matter by weight, moisture content not exceeding 15% and water absorption capacity of not less than 300% by weight on oven dry basis.
  - (b) Bonemeal: shall be raw bonemeal, finely ground with a minimum analysis of 3% nitrogen and 20% phosphoric acid.
  - (c) Imported topsoil: natural, fertile, agricultural soil typical of locality, capable of sustaining vigorous plant growth, from well drained Site that is free of flooding, not in frozen or muddy condition, not less than 6% organic matter to a maximum 25% organic matter by volume, and pH value of 5.9 to 7.0. Free from subsoil, slag or clay, stones, lumps, live plants and their roots, sticks, crabgrass, couchgrass, noxious weeds and foreign matter.
  - (d) Sand: hard, granular natural beach sand, washed free of impurities, chemical or organic matter.
- E30.4 Fertilizer: commercial type with 50% of the elements derived from organic sources. Deliver and store fertilizer in waterproof bags showing weight, analysis and name of manufacturer.
- E30.5 Separation Geotextile Fabric as per CW 3130 for each application.
- E30.6 Bark nugget mulch to be 50mm-75mm diameter.

### **Construction Methods**

- E30.7 Remove debris, broken roots, branches, stones in excess of 50mm diameter and other deleterious materials. Remove subsoil that has been contaminated with oil, gasoline or calcium chloride. Dispose of removed materials as directed.
- E30.8 Excavate planting beds to depths as per the Drawings. Confirm excavation on site with Contract Administrator prior to placement of geotextile or drainage material.
- E30.9 Do not spread planting soil mixture until Contract Administrator has inspected excavation.
- E30.10 Mix fertilizer at manufacturer's recommended rate of application. Mix fertilizer thoroughly into upper 150mm of planting soil to be placed.

- E30.11 Spread planting soil mixture with adequate moisture in uniform layers during dry weather over approved, dry, unfrozen sub-grade, where planting is indicated.
- E30.12 Bring planting soil mixture up to 100 mm below finished grade in beds.
- E30.13 Remove stones, roots, grass, weeds, construction materials, debris and foreign non-organic objects from soil mixture.
- E30.14 Fine grade entire planting soil area. Eliminate rough spots.
  - (a) Compact planting soil to leave surface smooth, uniform, firm against deep foot printing, with a fine, loose texture. Tolerance: plus or minus 15mm of design grade.
  - (b) Supply and install 100mm bark nugget mulch in planting beds.

### **Measurement and Payment**

- E30.15 Planting bed preparation will be measured and paid on an area basis at the Contract unit price per square metre for "Planting bed preparation" which price shall be payment in full for supply of all materials and performing all operations herein described and for all other items incidental to the Work included in this Specification. The area to be paid for shall be the total number of square metres in place in accordance with this Specification acceptable to the Contract Administrator, as computed from measurements made by the Contract Administrator.

## **E31. PLANT MATERIAL**

### **Description**

- E31.1 The following list generally describes the scope of this section:
  - (a) Supply and planting of trees and shrubs;
  - (b) Maintenance to date of substantial performance;
  - (c) Warranty for two full years.

### **General**

- E31.2 Obtain approval of plant material at source.
- E31.3 Notify Contract Administrator of source of material at least 7 days in advance of shipment. No Work under this Section is to proceed without approval.
- E31.4 Acceptance of plant material at source does not prevent rejection at Site prior to or after planting operations.
- E31.5 Source of all plant material to be from an area within the same hardness zone and soil conditions as Winnipeg.

### **Shipment and Pre-Planting Care**

- E31.6 Co-ordinate shipping of plants and excavation of holes to ensure minimum time lapse between digging and planting. Tie branches of trees and shrubs securely and protect plant material against abrasion, exposure and extreme temperature change during transit. Avoid binding of planting stock with rope or wire which would damage bark, break branches or destroy natural shape of plant. Give full support to root ball of large trees during lifting.
- E31.7 Cover plant foliage with tarpaulin, and protect bare roots by means of dampened straw, peatmoss, sawdust or other acceptable material to prevent loss of moisture during transit and storage.
- E31.8 Remove broken and damaged roots with sharp pruning shears. Make clean cut and cover cuts over 50 mm diameter with wound dressing.

E31.9 Keep roots moist and protected from sun and wind. Heel-in shrubs, which cannot be planted immediately, in shaded areas, and water well.

## **Materials**

### **Water**

E31.10 Water should be potable and free of minerals, which may be detrimental to plant growth.

### **Anti-Desiccant**

E31.11 Anti-desiccant should be wax-like emulsion to provide film over plant surface reducing evaporation but permeable enough to permit transpiration.

### **Wound Dressing**

E31.12 Wound dressing should be horticulturally accepted non-toxic, non-hardening emulsion.

### **Plant Material**

E31.13 Quality and Source: Comply with City of Winnipeg tree planting guidelines, referring to size and development of plant material and root ball. All plant material to be approved by City and Contract Administrator at source.

E31.14 Tree Species: Deciduous trees to be Northern Blaze White Ash (*Fraxinus Americana* 'Northern Blaze') or approved equal. Coniferous trees to be Black Hills Spruce (*Picea glauca* 'Densata') or approved equal.

E31.15 Measure plants when branches are in their natural position. Height and spread dimensions refer to main body of plant and not from branch tip to branch tip. Use trees of No. 1 grade.

E31.16 Additional plant material qualifications:

- (a) Trees must have been root pruned regularly, but not later than one growing season prior to arrival on Site.

### **Cold Storage**

E31.17 Approval required for plant material, which has been held in cold storage.

### **Container – Grown Stock**

E31.18 Acceptable if containers large enough for root development. Shrubs and vines must have grown in container for minimum of one growing season but not longer than two. Root system must be able to "hold" soil when removed from container. Plants that have become root bound are not acceptable. Container stock must have been fertilized with slow releasing fertilizer.

### **Substitutions**

E31.19 Substitutions to plant material as indicated on plantings plan are not permitted unless written approval has been obtained as to type, variety and size prior to award of Contract. Plant substitutions must be similar species and of equal size to those originally specified.

### **Root balls**

E31.20 Deciduous trees in excess of 3 m height must have been dug with large firm ball. Root balls must include 75% of fibrous and feeder root system. This excludes use of native trees grown in light sandy or rocky soil. Lift root ball from hole, place in wire basket designed for purpose and line with burlap. Secure root balls with burlap, heavy twine and wire basket. Protect root balls against sudden changes in temperature and exposure to heavy rainfall. Take care not to injure trunk of tree with wire basket ties or rope.

E31.21 Tree spade material shall not be accepted unless dug in field and secured as above.

## Construction Methods

### Workmanship

- E31.22 Stake out location of trees and shrubs as per the Construction Drawings. Obtain approval by the City and Contract Administrator prior to excavating.
- E31.23 Apply anti-desiccant in accordance with material manufacturer's instructions only as required.
- E31.24 Co-ordinate operations. Keep Site clean and planting holes drained. Immediately remove soil or debris spilled onto pavement.

### Planting Time

- E31.25 Plant deciduous plant material during dormant period, before buds have broken. Plant material noted for spring planting only, must be planted in dormant period.
- E31.26 When permission has been obtained to plant materials after buds have broken, spray plants with anti-desiccant to slow down transpiration prior to transplanting.
- E31.27 When permission has been obtained, shrubs and perennials growing in containers may be planted throughout growing season.
- E31.28 Plant only under conditions that are conducive to health and physical conditions of plants.
- E31.29 Provide planting schedule. Executing planting operations over long period using limited crew will not be accepted.

### Excavations

- E31.30 Prepare planting areas as shown on the Drawings.
- E31.31 Provide drainage for planting holes in heavy soil if natural drainage does not exist. Have method approved.
- E31.32 Protect bottom of excavations against freezing.
- E31.33 Remove water, which enters excavations prior to planting. Ensure source of water is not ground water.

### Planting

- E31.34 Scarify sides of planting hole to depth of 150mm where tree is planted in isolated tree pit.
- E31.35 Plant trees, shrubs and perennials vertically with roots placed straight out in hole. Orient plant material to give best appearance in relation to structure, roads and walks.
- E31.36 Place plant material to depth equal to depth they were originally growing in nursery. Allow for soil settlement in planting.
- E31.37 With balled and burlapped roots balls, loosen burlap and cut away minimum top 1/2 without disturbing root ball. Cut vertical slits in remaining burlap around root ball at 250mm intervals. Remove all rope, string, or other ties from around trunk. Do not pull burlap or rope from under root ball. With container stock, remove entire container without disturbing root ball. Non bio-degradable wrappings must be removed including wire baskets.
- E31.38 Tamp planting soil around root system in layers of 150mm eliminating air voids. Frozen or saturated planting soil is unacceptable. When 2/3 of planting soil has been placed, fill hole with water. After water has completely penetrated into soil, complete backfilling.
- E31.39 Build 100mm deep saucer around outer edge of hole to assist with maintenance watering. Install 100mm depth wood chip mulch in saucer as shown on drawings.



E31.40 When planting is completed, give surface of planting saucer dressing of organic 10-6-4 fertilizer at rate of 12 kg/100 m for shrub beds or 40 to 50 g/mm of calliper for trees. Mix fertilizer thoroughly with top layer of planting soil and water in well.

### **Pruning**

E31.41 Prune trees and shrubs after planting only as required to remove broken diseased or dead branches. Employ clean sharp tools and make cuts flush with main branch, smooth and sloping as to prevent accumulation of water.

### **Maintenance**

E31.42 After completion of planting operation to the satisfaction of the Contract Administrator and City of Winnipeg, the Contractor shall be responsible for the maintenance of the plant material until date of Substantial Performance and commencement of two year warranty.

E31.43 Replace any dead or damaged plant material during the maintenance period, including replacement of vandalized material.

E31.44 Water sufficiently to maintain optimum growing conditions. Ensure adequate moisture in root zone at freeze-up.

E31.45 The Contractor shall provide all necessary equipment, including: tractors, mowers, hand mowers, trimmers, fertilizer spreaders, pruning tools, hoses, water meters, and any other items necessary for the maintenance of the plant material indicated in this Specification.

E31.46 Remove all weeds and debris from mulch beds, planting beds and tree wells on a weekly basis.

E31.47 Turn and top up mulch in beds and tree wells each spring and prior to start of extended maintenance.

### **Personnel**

E31.48 The Contractor shall provide all necessary personnel for the ongoing maintenance operations.

E31.49 Personnel should have at least one year of experience in landscape maintenance and should be under the direction of a foreman, in all cases, with not less than five (5) years of experience with similar maintenance operations.

### **Maintenance Methods**

#### **Watering**

E31.50 Trees shall be watered twice weekly, or during the summer, if temperatures are fairly high and there has been no rainfall, water approximately once a week.

E31.51 To determine the need for watering, make a soil test weekly with a one-inch auger. Take a test sample from both the planting soil and from the root ball by drilling to a minimum depth of 600 mm. The soil shall contain enough moisture to hold together when compressed in the hand, but not be muddy.

#### **Fertilizing**

E31.52 Because of the specialized nature of such operations, fertilizing is to be done by a qualified local arborist.

E31.53 Fertilize in the fall over the surface of the ground surrounding the plants, then soak the area thoroughly, use 10-6-4 analysis fertilizer spreading a maximum of 0.13 kg per square metre.

### **Spraying**

E31.54 Spray trees to control insect pests and diseases. Use horticulturally recommended compounds specific for the problem to be contained.

### **Insects and Diseases**

E31.55 Spray plants to combat pests and diseases. Do not use DDT or sprays prohibited by Agriculture Canada.

### **Measurement and Payment**

E31.56 Supply and Installation of Plant Material will be measured on a unit basis. The number of units to be paid shall be the total number of each type and size of units supplied and installed in accordance with the Drawings and Specifications and as measured and accepted by the Contract Administrator. Supply and Installation of Plant Material will be paid for at the Contract Unit Price per unit type and size specified for "Supply and Installation of Plant Material", measured as specified herein, which price shall be payment in full for performing all operations herein described and all other items incidental to the Work included in this Specification.

### **E32. TOPSOIL AND FINISH GRADING**

E32.1 All Work to be to CW 3510.

### **Measurement and Payment**

E32.2 There shall be no separate measurement for the Work associated with this Specification.

E32.3 Payment for Work specified under this Specification is to be included with the price for Sodding.

### **E33. SODDING**

E33.1 All Work to be to CW 3510.

### **Measurement and Payment**

E33.2 Sodding will be measured on an area basis. The area to be paid for shall be the total number of square meters sodded and maintained in accordance with this Specification and accepted by the Contract Administrator, as computed from measurements made by the Contract Administrator. Sodding will be paid for at the Contract Unit Price per square metre for 'Supply and Install Sod', measured as specified herein, which price shall be payment in full for completing all operations herein described and all other items incidental to the Work included in this Specification.

### **E34. EXTENDED MAINTENANCE**

#### **Description**

E34.1 The Specification shall deal with the maintenance of the Plant Material, Shrub Beds and sod for Two (2) calendar years after the date of Total Performance.

#### **Materials and Personnel**

E34.2 The Contractor shall provide all necessary equipment, including: tractors, trimmers, fertilizer spreaders, pruning tools, water trucks, hoses, water meters, and any other items necessary for the maintenance of the area indicated in this Specification.

E34.3 The Contractor shall provide all necessary personnel for the ongoing maintenance operations.

#### **Work Included**

E34.4 The following areas shall be part of the maintenance jurisdiction:

- (a) The trees and sodded areas as indicated on the Construction Drawings

E34.5 Maintenance of Plant Material

- (a) All trees and shrubs shall be watered bi-weekly, or during the summer, if temperatures are fairly high and there has been no rainfall, water approximately once a week. Where irrigation is not available this should be executed by leaving a hose, with a gentle rate of flow, running into the saucer of the root ball for about one hour.
- (b) To determine the need for watering, make a soil test weekly with a one-inch auger. Take a test sample from both the planting soil and from the root ball by drilling to a minimum depth of 600 mm. The soil shall contain enough moisture to hold together when compressed in the hand, but shall not be muddy.
- (c) Fertilizing, Pruning and Spraying Deciduous Trees and Shrubs. Because of the specialized nature of such operations, this should be done by a qualified local arborist.
- (d) Fertilize in the fall over the surface of the ground surrounding the plants, and then soak the area thoroughly. Use 10-6-4 analysis fertilizer spreading a maximum of 0.13kg per square meter.
- (e) Spray trees and shrubs to control insect pests and diseases. Use horticulturally recommended compounds specific for the problem to be contained.
- (f) Supply and install protective tree wrap on ornamental deciduous tree trunks to prevent winter scalding. Remove tree wrap in spring.
- (g) Tighten, or remove, turnbuckles or guy wires for trees as required or directed by the Contract Administrator.
- (h) Straighten trees as required and directed by the Contract Administrator.

E34.6 The Contractor shall agree and guarantee to replace and replant any nursery stock found dead or in poor condition at the completion of the maintenance period. "Poor Condition" shall be interpreted as meaning nursery stock in which branches are dead or dying, or have not shown satisfactory growth of leaves. All replacements shall be of same size and species, as specified.

E34.7 Upon the end of the required maintenance period, a Site inspection shall be held. If at this time, all Material and Works is satisfactory the Contract for maintenance and warranty shall be terminated.

E34.8 Maintenance of Shrub Bed

E34.8.1 Shrub beds are to be weeded on a weekly basis. Contactor to remove and dispose of weeds.

E34.8.2 Wood Chip mulch is to be turned over in spring and fall. Top up wood chips as required ensuring 100mm depth is maintained.

E34.8.3 Remove and dispose of all garbage from shrub beds on a weekly basis.

E34.8.4 Edge beds in spring each year. Provide smooth even lines for bed.

E34.9 Maintenance of Sod

E34.9.1 Sod to be maintained as per CW 3510 for two (2) full years.

### **Measurement and Payment**

E34.10 Extended Maintenance will be measured on a lump sum basis and paid for in accordance with this Specification and accepted by the Contract Administrator. Extended Maintenance will be paid for over two (2) years, at 50% of the Contract Lump Sum Price each year for "Extended Maintenance of Plant Material"; which price shall be payment in full for supply of all materials and performing all operations herein described and for all other items incidental to the Work included in this Specification.

## **E35. PROJECT SEQUENCING**

E35.1 The Contractor is advised that the City anticipates sequencing as follows:

(a) Design

- (i) The Contractor shall, upon award of the contract, meet with the Contract Administrator to clarify and confirm the detailed conceptual design and engineering plan submitted in the Contractors proposal.
- (ii) The contractor shall engage a geotechnical soil engineer to provide survey and recommendations for construction.
- (iii) The Contractor shall develop the Design to a level sufficient for construction and permitting. This shall include structural, mechanical and electrical engineering drawings, grading drawings, layout drawings, and construction details.
- (iv) Periodic review is required during the design process and will be negotiated at a prework meeting with the City of Winnipeg.
- (v) Submissions during the Design Phase shall include; Drawings, Specifications, and costing confirmation.
- (vi) The Contractor shall submit drawings for review at the 60% stage.
- (vii) The Contractor shall submit drawings and specifications for review at the 90% and 99% stage.
- (viii) The Contractor shall receive written approval from the Contract Administrator after each submission prior to proceeding to the next stage.
- (ix) All applicable items will to be designed and constructed in accordance with City of Winnipeg Standard Construction Specifications, this document and all Manitoba Codes. Where items are not covered by the City of Winnipeg Standard Construction Specifications Contractor is to submit specification to the City for review. Specifications will not be used for construction until accepted by the Contract Administrator.
- (x) The Contractor will submit drawings and specifications to the appropriate authorities for Permitting purposes. Drawings shall be stamped as appropriate by the responsible design professional. Permitting and all fees are the responsibility of the Contractor.

(b) Construction

- (i) Construction shall be staged to meet the Critical Dates, Substantial and Total Performance.
- (ii) The work is to be completed and the necessary permits in place to open the pool to the public by Total Performance.
- (iii) Design professionals responsible for the design of the project shall conduct periodic reviews during the construction of the project and provide written confirmation of acceptance of the work to the Contract Administrator.
- (iv) Construction timelines will be reviewed weekly during construction phase.

## **E36. DESIGN PHASE**

E36.1 Guiding Principles

E36.1.1 Vision – An inclusive engaging play space with rest areas in sun and shade integrated into the existing park.

E36.1.2 Values:

(a) Inclusiveness and accessibility:

(b) Safe and Secure:

- (i) Maintain views into the site from the surrounding area.

- (ii) The Public Health Act (C.C.S.M. c. p210) Manitoba Regulation 132/97 and subsequent amendments as it relates to the design, construction, and mechanical operation of spray pads and equipment.

#### E36.2 Existing Site Conditions

- (a) Contractor is to be aware that the sites may contain existing underground structures and services including but not limited to high voltage buried cable, natural gas, water, etc.
  - (i) Underground structure data from the City is provided as a convenience to the Contractor only. Contractor is not to rely on this information but to arrange for on site location of all utilities and underground services and structures and obtain all clearances required for the project.
  - (ii) Contractor is to maintain offsets from underground services as may be required by the authorities concerned.
  - (iii) If any trees are damaged, they will be assessed by the City Forester to determine if the tree is salvageable and what the cost will be to remedy the tree, or if the tree must be removed for safety or the health of the tree a financial value for replacement compensation.
  - (iv) Any cost to remedy the tree or the financial value of the tree shall be paid by the Contractor at his own cost.
  - (v) Contractor to provide geotechnical investigation report for design of splash pad.

### E37. CONSTRUCTION PHASE

#### E37.1 General

- (a) Unless otherwise stated, the Contractor shall furnish 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 hereinafter specified and in accordance with the referenced standard City specification and construction details.
- (b) The Contractor shall construct the Work in accordance with the design produced during the design phase.
- (c) Construction materials, methods and procedures shall be performed in accordance with the standards set out in *The City of Winnipeg Standard Construction Specifications*. Obtain the Contract Administrators approval if the Contractor will deviate from *The City of Winnipeg Standard Construction Specifications*.
- (d) The Contractor shall document and advise the Contract Administrator of any alteration, modification, deletion, or substitutions to the approved design prior to incorporating said alterations, modifications, deletions or substitutions into the Work.
- (e) All Workmanship and all materials furnished and supplied under this Contract are subject to the close and systematic inspection or review and testing by the Contract Administrator including all operations from the selection and production of materials through to final acceptance of the Work. The Contractor shall be wholly responsible for the control of all operations incidental thereto notwithstanding any inspection, review or approval that may have been previously given. The Contract Administrator reserves the right to reject any materials or Works, which are not in accordance with the requirements of this Contract.

#### E37.2 Shop Drawings

- (a) Shop Drawings will be reviewed by the Contract Administrator for general conformance to the City's requirements only.
- (b) Shop Drawings are to be reviewed by the design professional responsible for the design prior to submission to the Contract Administrator.
- (c) Submit shop drawings and equipment catalogue data and manufacturer's installation operating and maintenance instructions for approval of the following items:
  - (i) Disconnect switched and fuses

- (ii) Over-current devices, including ground fault interruption circuit breakers
- (iii) Primary control system including activation switch, timers, electronic sequencer(s), and wiring schematic
- (iv) Electrical grounding / protection equipment
- (v) Equipment support details
- (vi) Excavation and concrete details
- (vii) Spray features
- (viii) Speciality products
- (ix) Drains / Covers

### E37.3 Record Drawings

- (a) The Contractor shall keep on the Site one (1) up to date copy of all specifications, drawings, and bulletins pertaining to the Work, in good order, available to the Contract Administrator and to his representatives.
- (b) Such specifications and drawings need to be marked by the Contractor to show all Work 'As-Built' as Work proceeds. The Contractor shall modify the Drawings to 'As-Built' bearing notations of all changes and variations from the original and submit these to the Contract Administrator for approval.
- (c) If required, in the opinion of the Contract Administrator, further revisions will be made to the Drawings by the Contractor until the Drawings are accepted by the Contract Administrator.
- (d) Accuracy of these drawings shall be the responsibility of the Contractor, who shall bear all expenses of corrections thereto.
- (e) The Contractor shall have a full topographic survey done of the completed works to be included in the 'As-Built' drawings.
- (f) Said Drawings will be provided to the Contract Administrator during the Commissioning stage of the project as revised Autocad files (dwg format). Drawings are to include all information as determined under items (a) to (e) above.
- (g) Contractor to make geotechnical report available to the city as part of the record drawings.

## E38. COMMISSIONING

### E38.1 System Start-up and First Year Winterization

- (a) Contractor to perform the system start-up in accordance with the information contained in the Operation and Maintenance Manuals in order to have the Work fully operational for public use by the date of Substantial Performance specified herein.
- (b) After the operation of the Work for the season, the Contractor shall perform the first year winterization of the Work as per D20.1(c).
- (c) The Contractor shall provide the Contract Administrator with 48 hours notice prior to commencing the start-up and winterization procedures in order that the City staff may attend.
- (d) Contractor to perform system start-up in the spring following the first winter shut down with training for City staff.

### E38.2 Operation and Maintenance Manuals

- (a) The Contractor shall provide in a format acceptable to the Contract Administrator three (3) bound copies as well as one electronic copy (in pdf format) detailing the operation and maintenance instructions for all elements of the Construction including:
  - (i) Manufacturers' written instructions, warranties, shop drawings, schedules, wire diagram and a listing of persons to contact for repairs during the warranty period.
  - (ii) Descriptions of day to day operations, preventative maintenance, annual and periodic maintenance, and procedures for seasonal shutdown and start-up.

**E38.3 Staff Training**

- (a) On Site training provided to City pool staff and maintenance personnel in proper operation and maintenance procedures for the system.
- (b) Trainers shall be qualified trades persons or consultants knowledgeable of the equipment and familiar with the installation.
- (c) Legible documentation shall be provided to City staff during the training.
- (d) Training shall be a minimum of one half day duration.

E38.4 Payment shall be as per Form B: Prices at the price for item "Commissioning".

**E39. CONSULTANT SERVICES**

E39.1 Consultants on the Design team are to include all required professional Engineers required to design and certify all works for Civil, Geotechnical, Structural, Mechanical, and Electrical work to be done on the project.

E39.2 All Drawings for construction are to be stamped by a professional Engineer licensed to practice in Manitoba for each discipline. All Drawings are to be submitted by the date noted in Critical Stages.

E39.3 All consultant services from detailed conceptual design through to certification are to be included in the Bid Price.

E39.4 Payment shall be as per Form B: Prices at the price for item "Consultant Services".