



**THE CITY OF WINNIPEG**

# **BID OPPORTUNITY**

**BID OPPORTUNITY NO. 107-2014**

**IMPROVEMENTS AT TWO WADING POOLS**

## TABLE OF CONTENTS

### PART A - BID SUBMISSION

Form A: Bid	1
Form B: Prices	3

### PART B - BIDDING PROCEDURES

B1. Contract Title	1
B2. Submission Deadline	1
B3. Site Investigation	1
B4. Enquiries	1
B5. Confidentiality	1
B6. Addenda	2
B7. Substitutes	2
B8. Bid Components	3
B9. Bid	4
B10. Prices	4
B11. Qualification	5
B12. Opening of Bids and Release of Information	5
B13. Irrevocable Bid	6
B14. Withdrawal of Bids	6
B15. Evaluation of Bids	6
B16. Award of Contract	7

### PART C - GENERAL CONDITIONS

C0. General Conditions	1
------------------------	---

### PART D - SUPPLEMENTAL CONDITIONS

#### General

D1. General Conditions	1
D2. Scope of Work	1
D3. Contract Administrator	1
D4. Contractor's Supervisor	1
D5. Ownership of Information, Confidentiality and Non Disclosure	1
D6. Notices	1

#### Submissions

D7. Authority to Carry on Business	2
D8. Safe Work Plan	2
D9. Insurance	2
D10. Performance Security	3
D11. Subcontractor List	3
D12. Shop Drawings and Record Drawings	3
D13. Ordering of Spray Toys and Water Treatment Equipment	4
D14. Detailed Work Schedule	4

#### Schedule of Work

D15. Commencement	5
D16. Critical Stages	6
D17. Substantial Performance	6
D18. Total Performance	6
D19. Liquidated Damages	6
D20. Scheduled Maintenance	6

#### Control of Work

D21. Job Meetings	7
D22. Prime Contractor – The Workplace Safety and Health Act (Manitoba)	7
D23. The Workplace Safety and Health Act (Manitoba) – Qualifications	7

**Measurement and Payment**

D24. Payment	7
--------------	---

**Warranty**

D25. Warranty	7
---------------	---

Form H1: Performance Bond	8
---------------------------	---

Form H2: Irrevocable Standby Letter of Credit	10
---	----

Form J: Subcontractor List	12
----------------------------	----

**PART E - SPECIFICATIONS**

**General**

E1. Applicable Specifications and Drawings	1
--	---

E2. Complete Project	1
----------------------	---

E3. Hazardous Materials	1
-------------------------	---

E4. Existing Services and Utilities	1
-------------------------------------	---

E5. Access To Site	2
--------------------	---

E6. Permits, Notices, Licences, Certificates, Laws and Rules	2
--	---

E7. Codes and Standards	3
-------------------------	---

E8. Damage to Existing Structures, Trees and Property	3
---	---

E9. Pedestrian Safety and Traffic Management	3
--	---

E10. Protection of the Survey Infrastructure	3
--	---

E11. Site Enclosures	4
----------------------	---

E12. Tree Protection	4
----------------------	---

**Site Work**

E13. Demolition and Removals	5
------------------------------	---

E14. Excavation, Earthwork And Grading	5
--	---

E15. Stakes and Marks	6
-----------------------	---

E16. Sodding	7
--------------	---

E17. Landscape Maintenance	7
----------------------------	---

E18. Site Furniture	8
---------------------	---

E19. New Pool Deck	9
--------------------	---

E20. Water Play Components	10
----------------------------	----

E21. Mechanical/Plumbing/Electrical Systems	10
---	----

E22. Basin Resurfacing	14
------------------------	----

E23. Commissioning	14
--------------------	----

E24. Site Restoration	15
-----------------------	----

## **PART B - BIDDING PROCEDURES**

### **B1. CONTRACT TITLE**

B1.1 IMPROVEMENTS AT TWO WADING POOLS

### **B2. SUBMISSION DEADLINE**

B2.1 The Submission Deadline is 4:00 p.m. Winnipeg time, February 20, 2014.

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

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

### **B3. SITE INVESTIGATION**

B3.1 Further to C3.1, the Bidder may make an appointment to view the Site by contacting the Contract Administrator.

B3.2 The Bidder shall not be entitled to rely on any information or interpretation received at the Site investigation unless that information or interpretation is the Bidder's direct observation, or is provided by the Contract Administrator in writing.

### **B4. ENQUIRIES**

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

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

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

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

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

### **B5. CONFIDENTIALITY**

B5.1 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.

B5.2 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.

## **B6. ADDENDA**

- B6.1 The Contract Administrator may, at any time prior to the Submission Deadline, issue addenda correcting errors, discrepancies or omissions in the Bid Opportunity, or clarifying the meaning or intent of any provision therein.
- B6.2 The Contract Administrator will issue each addendum at least two (2) Business Days prior to the Submission Deadline, or provide at least two (2) Business Days by extending the Submission Deadline.
- B6.2.1 Addenda will be available on the Bid Opportunities page at The City of Winnipeg, Corporate Finance, Materials Management Division website at <http://www.winnipeg.ca/matmgt/>
- B6.2.2 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.
- B6.2.3 The Bidder shall acknowledge receipt of each addendum in Paragraph 8 of Form A: Bid. Failure to acknowledge receipt of an addendum may render a Bid non-responsive.

## **B7. SUBSTITUTES**

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

- B7.6.1 The Bidder requesting and obtaining the approval of a substitute shall be entirely responsible for disseminating information regarding the approval to any person or persons he/she wishes to inform.
- B7.7 If the Contract Administrator approves a substitute as an “approved equal”, any Bidder may use the approved equal in place of the specified item.
- B7.8 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 B15.
- B7.9 No later claim by the Contractor for an addition to the Total Bid Price because of any other changes in the Work necessitated by the use of an approved equal or an approved alternative will be considered.
- B7.10 Notwithstanding B7.2 to B7.9, and in accordance with B8.7, deviations inconsistent with the Bid Opportunity document shall be evaluated in accordance with B15.1(a).

## **B8. BID COMPONENTS**

- B8.1 The Bid shall consist of the following components:
- (a) Form A: Bid;
  - (b) Form B: Prices;
- B8.2 Further to B8.1, the Bidder should include the written correspondence from the Contract Administrator approving a substitute in accordance with B7.
- B8.3 All components of the Bid shall be fully completed or provided, and submitted by the Bidder no later than the Submission Deadline, with all required entries made clearly and completely, to constitute a responsive Bid.
- B8.4 The Bid Submission may be submitted by mail, courier or personal delivery, or by facsimile transmission.
- B8.5 If the Bid Submission is submitted by mail, courier or personal delivery, it shall be enclosed and sealed in an envelope clearly marked with the Bid Opportunity number and the Bidder's name and address, and shall be submitted to:
- The City of Winnipeg  
Corporate Finance Department  
Materials Management Division  
185 King Street, Main Floor  
Winnipeg, MB R3B 1J1
- B8.5.1 Samples or other components of the Bid Submission which cannot reasonably be enclosed in the envelope may be packaged separately, but shall be clearly marked with the Bid Opportunity number, the Bidder's name and address, and an indication that the contents are part of the Bidder's Bid Submission.
- B8.6 Bidders are advised not to include any information/literature except as requested in accordance with B8.1.
- B8.7 Bidders are advised that inclusion of terms and conditions inconsistent with the Bid Opportunity document, including the General Conditions, will be evaluated in accordance with B15.1(a).
- B8.8 If the Bid Submission is submitted by facsimile transmission, it shall be submitted to 204 949-1178.
- B8.8.1 The Bidder is advised that the City cannot take responsibility for the availability of the facsimile machine at any time.

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

**B9. BID**

B9.1 The Bidder shall complete Form A: Bid, making all required entries.

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

- (a) if the Bidder is a sole proprietor carrying on business in his/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.

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

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

B9.4 Paragraph 10 of Form A: Bid shall be signed in accordance with the following requirements:

- (a) if the Bidder is a sole proprietor carrying on business in his/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;
- (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.

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

B9.4.2 All signatures shall be original.

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

**B10. PRICES**

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

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

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

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

## **B11. QUALIFICATION**

### **B11.1 The Bidder shall:**

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

### **B11.2 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>

### **B11.3 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);

### **B11.4 Further to B11.3(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/Subcontractors 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/>).

### **B11.5 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.**

### **B11.6 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.**

## **B12. OPENING OF BIDS AND RELEASE OF INFORMATION**

### **B12.1 Bids will not be opened publicly.**

### **B12.2 Following the submission deadline, the names of the Bidders and their Total Bid Prices (unevaluated, and pending review and verification of conformance with requirements) will be**



available on the Closed Bid Opportunities (or Public/Posted Opening & Award Results) page at The City of Winnipeg, Corporate Finance, Materials Management Division website at <http://www.winnipeg.ca/matmgt/bidopp.asp>

B12.3 After award of Contract, the name(s) of the successful Bidder(s) and the Contract amount(s) will be available on the Closed Bid Opportunities (or Public/Posted Opening & Award Results) page at The City of Winnipeg, Corporate Finance, Materials Management Division website at <http://www.winnipeg.ca/matmgt/>

B12.4 The Bidder is advised that any information contained in any Bid may be released if required by City policy or procedures, by The Freedom of Information and Protection of Privacy Act (Manitoba), by other authorities having jurisdiction, or by law.

### **B13. IRREVOCABLE BID**

B13.1 The Bid(s) submitted by the Bidder shall be irrevocable for the time period specified in Paragraph 9 of Form A: Bid.

B13.2 The acceptance by the City of any Bid shall not release the Bids of the next two lowest evaluated responsive Bidders and these Bidders shall be bound by their Bids on such Work for the time period specified in Paragraph 9 of Form A: Bid.

### **B14. WITHDRAWAL OF BIDS**

B14.1 A Bidder may withdraw his/her Bid without penalty by giving written notice to the Manager of Materials at any time prior to the Submission Deadline.

B14.1.1 Notwithstanding C23.3, the time and date of receipt of any notice withdrawing a Bid shall be the time and date of receipt as determined by the Manager of Materials.

B14.1.2 The City will assume that any one of the contact persons named in Paragraph 3 of Form A: Bid or the Bidder's authorized representatives named in Paragraph 10 of Form A: Bid, and only such person, has authority to give notice of withdrawal.

B14.1.3 If a Bidder gives notice of withdrawal prior to the Submission Deadline, the Manager of Materials will:

- (a) retain the Bid until after the Submission Deadline has elapsed;
- (b) open the Bid to identify the contact person named in Paragraph 3 of Form A: Bid and the Bidder's authorized representatives named in Paragraph 10 of Form A: Bid; and
- (c) if the notice has been given by any one of the persons specified in B14.1.3(b), declare the Bid withdrawn.

B14.2 A Bidder who withdraws his/her Bid after the Submission Deadline but before his/her Bid has been released or has lapsed as provided for in B13.2 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.

### **B15. EVALUATION OF BIDS**

B15.1 Award of the Contract shall be based on the following bid evaluation criteria:

- (a) compliance by the Bidder with the requirements of the Bid Opportunity or acceptable deviation there from (pass/fail);
- (b) qualifications of the Bidder and the Subcontractors, if any, pursuant to B11 (pass/fail);
- (c) Total Bid Price;
- (d) economic analysis of any approved alternative pursuant to B7.

- B15.2 Further to B15.1(a), the Award Authority may reject a Bid as being non-responsive if the Bid is incomplete, obscure or conditional, or contains additions, deletions, alterations or other irregularities. The Award Authority may reject all or any part of any Bid, or waive technical requirements or minor informalities or irregularities, if the interests of the City so require.
- B15.3 Further to B15.1(b), the Award Authority shall reject any Bid submitted by a Bidder who does not demonstrate, in his/her Bid or in other information required to be submitted, that he/she is responsible and qualified.
- B15.4 Further to B15.1(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.
- B15.4.1 Further to B15.1(a), in the event that a unit price is not provided on Form B: Prices, the City will determine the unit price by dividing the Amount (extended price) by the approximate quantity, for the purposes of evaluation and payment.

## **B16. AWARD OF CONTRACT**

- B16.1 The City will give notice of the award of the Contract or will give notice that no award will be made.
- B16.2 The City will have no obligation to award a Contract to a Bidder, even though one or all of the Bidders are determined to be responsible and qualified, and the Bids are determined to be responsive.
- B16.2.1 Without limiting the generality of B16.2, the City will have no obligation to award a Contract where:
- (a) the prices exceed the available City funds for the Work;
  - (b) the prices are materially in excess of the prices received for similar work in the past;
  - (c) the prices are materially in excess of the City's cost to perform the Work, or a significant portion thereof, with its own forces;
  - (d) only one Bid is received; or
  - (e) in the judgment of the Award Authority, the interests of the City would best be served by not awarding a Contract.
- B16.3 Where an award of Contract is made by the City, the award shall be made to the responsible and qualified Bidder submitting the lowest evaluated responsive Bid, in accordance with B15.
- B16.3.1 Following the award of contract, a Bidder will be provided with information related to the evaluation of his/her Bid upon written request to the Contract Administrator.
- B16.4 Notwithstanding C4, the City will issue a Purchase Order to the successful Bidder in lieu of the execution of a Contract.
- B16.5 The Contract, as defined in C1.1, in its entirety shall be deemed to be incorporated in and to form a part of the Purchase Order notwithstanding that it is not necessarily attached to or accompany said Purchase Order.

## PART C - GENERAL CONDITIONS

### C0. GENERAL CONDITIONS

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

## **PART D - SUPPLEMENTAL CONDITIONS**

### **GENERAL**

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

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

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

D2.1 The Work to be done under the Contract shall consist of facility enhancements at two wading pools including but not limited to the provision of new spray toys in the wading pools and upgrades to the pool mechanical and water treatment equipment, pool deck and concrete basin.

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

D3.1 The Contract Administrator is Dean Spearman Landscape Architect, represented by:  
Dean Spearman

Telephone No. 204 261-4137  
Email dean@spearman.mb.ca

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

D3.3 Bids Submissions must be submitted to the address in B8.5.

#### **D4. CONTRACTOR'S SUPERVISOR**

D4.1 At the pre-construction meeting, 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. OWNERSHIP OF INFORMATION, CONFIDENTIALITY AND NON DISCLOSURE**

D5.1 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.

D5.2 The Contractor shall not make any public announcements or press releases regarding the Contract, without the prior written authorization of the Contract Administrator.

D5.3 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.

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

#### **D6. NOTICES**

D6.1 Except as provided for in C23.2.2, all notices, requests, nominations, proposals, consents, approvals, statements, authorizations, documents or other communications to the Contractor

shall be sent to the address or facsimile number identified by the Contractor in Paragraph 2 of Form A: Bid.

D6.2 All notices, requests, nominations, proposals, consents, approvals, statements, authorizations, documents or other communications to the City, except as expressly otherwise required in D6.3, D6.4 or elsewhere in the Contract, shall be sent to the attention of the Contract Administrator at the facsimile number identified in D3.1.

D6.3 Notwithstanding C21., all notices of appeal to the Chief Administrative Officer shall be sent to the attention of the Chief Financial Officer at the following facsimile number:

The City of Winnipeg  
Chief Financial Officer

Facsimile No.: 204 949-1174

D6.4 All notices, requests, nominations, proposals, consents, approvals, statements, authorizations, documents or other communications required to be submitted or returned to the City Solicitor shall be sent to the following facsimile number:

The City of Winnipeg  
Legal Services Department  
Attn: Director of Legal Services

Facsimile No.: 204 947-9155

## **SUBMISSIONS**

### **D7. AUTHORITY TO CARRY ON BUSINESS**

D7.1 The Contractor shall be in good standing under The Corporations Act (Manitoba), or properly registered under The Business Names Registration Act (Manitoba), or otherwise properly registered, licensed or permitted by law to carry on business in Manitoba, or if the Contractor does not carry on business in Manitoba, in the jurisdiction where the Contractor does carry on business, throughout the term of the Contract, and shall provide the Contract Administrator with evidence thereof upon request.

### **D8. SAFE WORK PLAN**

D8.1 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.

D8.2 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>

### **D9. INSURANCE**

D9.1 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 Dean Spearman Landscape Architect and The City of Winnipeg added as an additional insured, with a cross-liability clause, such liability policy to also contain contractual liability, unlicensed motor vehicle liability, non-owned automobile liability and products and completed operations, to remain in place at all times during the performance of the Work and throughout the warranty period;
- (b) 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.

D9.2 Deductibles shall be borne by the Contractor.

D9.3 The Contractor shall provide the Contract Administrator with a certificate(s) of insurance, in a form satisfactory to the City Solicitor, at least two (2) Business Days prior to the commencement of any Work but in no event later than seven (7) Calendar Days from notification of the award of Contract by Purchase Order.

D9.4 The Contractor shall not cancel, materially alter, or cause each policy to lapse without providing at least thirty (30) Calendar Days prior written notice to the Contract Administrator.

## **D10. PERFORMANCE SECURITY**

D10.1 If the Contract Price exceeds twenty-five thousand dollars (\$25,000.00), the Contractor shall provide and maintain performance security until the expiration of the warranty period in the form of:

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

D10.1.1 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.

D10.2 The Contractor shall provide the City Solicitor with the required performance security within seven (7) Calendar Days of notification of the award of the Contract by way of Purchase Order and prior to the commencement of any Work on the Site.

## **D11. SUBCONTRACTOR LIST**

D11.1 The Contractor shall provide the Contract Administrator with a complete list of the Subcontractors whom the Contractor proposes to engage (Form J: Subcontractor List) at least two (2) Business Days prior to the commencement of any Work on the Site but in no event later than seven (7) Calendar Days from notification of the award of Contract.

## **D12. SHOP DRAWINGS AND RECORD DRAWINGS**

D12.1 Shop Drawings will be reviewed by the Contract Administrator for general conformance to the City's requirements and the design intent only.

D12.2 Shop Drawings are to be reviewed by the Contractor's responsible design personnel for the design prior to submission to the Contract Administrator.

D12.3 Shop drawings shall be sealed by a professional engineer registered to practice in the Province of Manitoba.

- D12.4 The level of detail and scope of information provided on the shop drawings shall be sufficient to satisfy construction needs and permitting requirements.
- D12.5 Plan drawings submitted shall include the following:
- (a) Name and address of the proposed facility.
  - (b) Scale, north point
  - (c) Date, address, name, professional seal and signature of the design engineer or architect.
- D12.6 Detailed drawings. All detailed drawings shall be drawn to a suitable scale and include the following information:
- (a) Complete construction details, including dimensions, elevations and appropriate cross-sections.
- D12.7 The Contractor shall provide within 10 days of award, at minimum the following Shop Drawings:
- (a) Site layout and piping diagrams
  - (b) Detail drawings and schematic of the water treatment proposed as well as connections to existing water supply and sewer.
  - (c) Electrical drawings
  - (d) Anchoring drawings regarding the new spray toys.
- D12.8 The Contractor shall maintain, during the course of construction, a complete set of Drawings including the original Bid Opportunity Drawings, any Drawings released by addenda or change order, and the Contractors Shop Drawings.
- (a) These drawings shall have any deviations between the actual built Work and the Drawings noted on them in red as well as the reason for the deviation.
  - (b) These drawings shall be made available to the Contract Administrator for review upon request during the Construction phase of the project.
  - (c) These drawings shall be provided to the Contract Administrator at the date of Substantial Performance in accordance with E23.4.
- D12.9 There shall be no separate measurement or payment for Shop Drawings or Record Drawings.

**D13. ORDERING OF SPRAY TOYS AND WATER TREATMENT EQUIPMENT**

- D13.1 The Contractor shall provide the Contract Administrator evidence, to the satisfaction of the Contract Administrator, of having ordered all items and equipment necessary to complete the work from the manufacturer/supplier within seven (7) calendar days of receipt of the purchase order or letter of intent, which ever is received earlier.
- D13.2 This shall include but not be limited to the following items:
- (a) Water Treatment Equipment;
  - (b) Aqua-flex Surfacing;
  - (c) Spray Toys

**D14. DETAILED WORK SCHEDULE**

- D14.1 The Contractor shall provide the Contract Administrator a detailed work schedule within seven (7) calendar days of receipt of the purchase order or letter of intent, which ever is received earlier.
- D14.2 This shall identify a schedule with detail acceptable to the Contract Administrator and sufficient to provide for planning, monitoring, and reporting of project progress. It shall include but not be limited to the following:

- (a) Project Award
- (b) Submittal of Shop drawings and samples
- (c) Permitting
- (d) Delivery of Materials
- (e) Construction Start
- (f) Demolition and removals
- (g) Water treatment system
- (h) Mechanical and Piping, Vault Construction
- (i) Bases for features
- (j) Feature installation
- (k) Site Furnishings
- (l) Anticipated Completion Date

D14.3 Each item shall include an anticipated start date and an anticipated completion date.

D14.4 Each item shall identify dependencies and risk factors.

## **SCHEDULE OF WORK**

### **D15. COMMENCEMENT**

D15.1 The Contractor shall not commence any Work until he/she is in receipt of a Purchase Order from the Award Authority 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 D7;
  - (ii) evidence of the workers compensation coverage specified in C6.15;
  - (iii) the Safe Work Plan specified in D8;
  - (iv) evidence of the insurance specified in D9;
  - (v) the performance security specified in D10; and
  - (vi) the Subcontractor list specified in D11; and
  - (vii) the Shop Drawings specified in D12; and
  - (viii) evidence of ordering spray toys and water treatment equipment specified in D13.
  - (ix) The detailed Work Schedule as 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.

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

D15.4 The City intends to award this Contract by March 6, 2014.

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



**D16. CRITICAL STAGES**

D16.1 The Contractor shall achieve critical stages of the Work in accordance with the following requirements:

- (a) Submission of permit application by March 20, 2014
- (b) Completion of Works constructed at Ducharme Park by May 23, 2014.

**D17. SUBSTANTIAL PERFORMANCE**

D17.1 The Contractor shall achieve Substantial Performance by May 30, 2014.

D17.2 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.

D17.3 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.

**D18. TOTAL PERFORMANCE**

D18.1 The Contractor shall achieve Total Performance by June 6, 2014.

D18.2 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.

D18.3 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.

**D19. LIQUIDATED DAMAGES**

D19.1 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 Working Day for each and every Working Day following the days fixed herein for same during which such failure continues:

- (a) Completion of Works constructed at Ducharme Park by May 23, 2014 – Five Hundred dollars (\$500.00);
- (b) Substantial Performance – Five Hundred dollars (\$500.00);
- (c) Total Performance – Five Hundred dollars (\$500.00).

D19.2 The amounts specified for liquidated damages in D19.1 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.

D19.3 The City may reduce any payment to the Contractor by the amount of any liquidated damages assessed.

**D20. SCHEDULED MAINTENANCE**

D20.1 The Contractor shall perform the following scheduled maintenance in the manner and within the time periods required by the Specifications:

(a) Sod Maintenance as specified in E17;

D20.2 Determination of Substantial Performance and Total Performance shall be exclusive of scheduled maintenance identified herein. All scheduled maintenance shall be completed prior to the expiration of the warranty period. Where the scheduled maintenance cannot be completed during the warranty period, the warranty period shall be extended for such period of time as it takes the Contractor to complete the scheduled maintenance.

## **CONTROL OF WORK**

### **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 B11.4, 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 B11.4.

## **MEASUREMENT AND PAYMENT**

### **D24. PAYMENT**

D24.1 Further to C12, the City may at its option pay the Contractor by direct deposit to the Contractor's banking institution.

## **WARRANTY**

### **D25. WARRANTY**

D25.1 Warranty is as stated in C13.

**FORM H1: PERFORMANCE BOND**  
(See D10)

KNOW ALL MEN BY THESE PRESENTS THAT

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

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

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

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

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

BID OPPORTUNITY NO. 107-2014

IMPROVEMENTS AT TWO WADING POOLS

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 D10)

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

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

RE: PERFORMANCE SECURITY - BID OPPORTUNITY NO. 107-2014  
IMPROVEMENTS AT TWO WADING POOLS

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

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

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

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

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

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

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

Partial drawings are permitted.

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

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

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

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

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

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

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

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

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

\_\_\_\_\_  
(Name of bank or financial institution)

Per: \_\_\_\_\_  
(Authorized Signing Officer)

Per: \_\_\_\_\_  
(Authorized Signing Officer)



## PART E - SPECIFICATIONS

### GENERAL

#### E1. APPLICABLE SPECIFICATIONS AND DRAWINGS

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

<u>Drawing No.</u>	<u>Drawing Name/Title</u>
L-1	65 Morrow, Wading Pool Upgrades
L-2	575 Larson, Wading Pool Upgrades

#### E2. COMPLETE PROJECT

- E2.1 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.

#### E3. HAZARDOUS MATERIALS

- E3.1 If asbestos or other hazardous materials are encountered during the Work of the Contract, the Contractor shall stop all work and notify the Contract Administrator immediately. Removal of hazardous materials shall be dealt with by the City and the Contractor shall await further instruction by the Contract Administrator.

#### E4. EXISTING SERVICES AND UTILITIES

- E4.1 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.
- E4.2 The Contractor shall make all requests for the location of each utility directly to each utility prior to the start of construction in the area.
- E4.3 The Contractor shall indemnify and save harmless the City and the Contract Administrator against damages for consequential loss or any claim made for any damage or consequential loss in respect of third party claims which may be made arising from damage to any structure or utility in any way caused by the operations of the Contractor in the performance of this Contract.



## **E5. ACCESS TO SITE**

- E5.1 Access to the Site as required by the Contractor shall be provided and maintained by the Contractor at his/her own expense and approved by the Contract Administrator.
- E5.2 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/her Work on private or public property. The Contractor Shall:
- (a) Confine apparatus, the storage of products and the operations of workers to limits indicated by laws, ordinances, permits and by directions of the Contract Administration.
  - (b) Obtain and pay for use of additional storage, or work areas, or materials needed for operations.
  - (c) Maintain roads and access in good condition for efficient execution of work.
  - (d) Maintain the project site during construction.
  - (e) Be responsible for damage due to weather, vandalism, etc. which occur during construction.
  - (f) Complete works in a manner that shall result in good surface drainage during periods of precipitation.
  - (g) Maintain project free of accumulated waste, surplus excavated materials and rubbish.
  - (h) Haul any waste materials including excavated materials from the site and dispose of in a manner acceptable to the Contract Administrator.
  - (i) Assume full responsibility for the protection and safekeeping of products under the contract, stored on the site.
- E5.3 The Contractor shall not:
- (a) Unreasonably encumber site with materials or equipment.
  - (b) Load or permit to be loaded any part of the work with a weight, load or force that will endanger its safety.
  - (c) Move stored products or equipment which interfere with operations of City.

## **E6. PERMITS, NOTICES, LICENCES, CERTIFICATES, LAWS AND RULES**

- E6.1 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.
- E6.2 The Contractor shall comply with all laws, ordinances, rules and regulations that would relate to the Work.
- E6.3 All notices, consents, approvals, statements, authorizations, documents or other communications to the City shall be submitted to the Contract Administrator.
- E6.4 All Work shall be performed in compliance with the Manitoba Workplace Health and Safety Act.
- E6.5 All Work shall be performed in compliance with the Manitoba Workplace Health and Safety Fall Protection guidelines.
- E6.6 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.

## **E7. CODES AND STANDARDS**

- E7.1 Perform work and obtain permits in accordance with the National Codes of Canada and any other code of provincial or local application including City of Winnipeg, including City of Winnipeg Accessibility Design Standards. In any case of conflict or discrepancy the more stringent requirements shall apply.
- E7.2 Obtain permits and complete work to meet or exceed the requirements of standards, codes and other documents referred to in this specification.
- E7.3 Where the specifications contained herein are more stringent than the applicable code or standard utilize the most stringent.
- E7.4 Equipment and materials to carry CSA, ULC or cUL approval and conform with applicable standards. There will be no exceptions or alternatives.
- E7.5 Where a standard or code of any type is referred to anywhere in the document, the standard or code utilized for all work shall be the most recent whether or not the most recent is specifically shown or listed.

## **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.
- E8.2 Location of existing works on public property in some areas may restrict the normal operation of heavy machinery. In these areas the contractor is not relieved of any responsibility from damages caused to private or public property. Take all necessary precautions to prevent damage to existing facilities.
- E8.3 When moving heavy equipment protect roads, streets and all property. Use caution when turning heavy equipment on streets to prevent permanent damage. If permanent damage occurs, repair such damage at no expense to the City.

## **E9. PEDESTRIAN SAFETY AND TRAFFIC MANAGMENT**

- E9.1 Further to CW 1130-R1, 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/her SubContractors to the adjacent Works or properties, shall be promptly repaired by him/her at his/her own expense, to the satisfaction of the Contract Administrator.
- E9.2 Ambulance/ Emergency vehicle access must be maintained at all times.

## **E10. PROTECTION OF THE SURVEY INFRASTRUCTURE**

- E10.1 Notwithstanding CW 1130 3.14 'Protection of Survey Infrastructure' of the Standard Construction Specifications, 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.
- E10.2 Further to C:6.26(g), at least 72 hours prior to the commencement of the On-Site Work the Contractor shall contact the City of Winnipeg, Geomatics Services Branch at 918-1360 (8:00

a.m. to 4:00 pm Monday to Friday excluding holidays) to obtain 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.

- E10.3 Where a survey post, bar, or control monument lies in the line of proposed Work and must be disturbed, the Contractor shall provide the Contract Administrator with 48 hours notice to permit referencing for future replacement, at no cost to the Contractor. Failure to provide the specified notice shall result in the Contractor paying for all costs associated with replacing or relocating the disturbed outline survey monuments and geodetic control monuments.
- E10.4 Outline survey monuments and geodetic control monuments at or adjacent to the Site, not in 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 \$1000 per bar and \$3000 per control monument. Contractors must ensure SubContractors are aware of this clearance procedure and the potential restoration costs.
- E10.5 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.

## **E11. SITE ENCLOSURES**

- E11.1 Temporary Site enclosures, as determined necessary at the pre-construction meeting or as shown on the Drawings, shall be erected and maintained as required for the duration of the construction period.
- E11.2 At minimum site enclosures shall be provided for the pool basin while under construction.
- E11.3 Site enclosures shall, at a minimum, consist of sectional, 1.8 m ht, non-climbable metal fencing.
- E11.4 Site enclosure shall be sufficient to isolate and secure the jobsite from the adjacent area.
- E11.5 Site enclosures shall be considered incidental to the Contract Work and will not be separately measured or paid for.

## **E12. TREE PROTECTION**

- E12.1 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.
- E12.2 The Contractor shall not stockpile materials and soil or park vehicles and equipment within 2 metres of trees.
- E12.3 Trees identified to be at risk by the Contract Administrator are to be strapped with 25x100x2400 wood planks, or suitable protection as approved by the Contract Administrator.
- E12.4 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.
- E12.5 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.

- E12.6 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 2 m o.c.. Safety fencing shall be securely fastened to the trail stake.
- E12.7 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.
- E12.8 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.
- E12.9 Tree protection shown on the drawings shall be paid for at the rate identified for tree protection Form B:Prices. All other tree protection shall be considered incidental to the Contract and will not be separately measured or paid for.

## **SITE WORK**

### **E13. DEMOLITION AND REMOVALS**

- E13.1 This section shall cover the removal of existing asphalt surfacing, concrete decking existing equipment, as well as any other items scheduled for removal or where removal will be necessary to construct the Works. It shall also cover any other demolition and removal necessary to construct the project which may be considered incidental to other items of Work.
- E13.2 To the extent and limits shown on the Drawings, where the existing surfacing is to be removed, it is to be removed in its entirety.
- E13.3 Removal of items designated for removal on sheets L-1 and L-2 shall be included in items 1 and 24 on Form B;Prices and shall be paid for as part of that lump sum item.
- E13.4 There shall be no separate measurement and payment for demolition and removals item not scheduled on sheets L-1 and L-2 but necessary to complete the Work with these items being considered incidental to other aspects of the Work.

### **E14. EXCAVATION, EARTHWORK AND GRADING**

#### Description

- E14.1 This specification shall cover all clearing and grubbing, excavation, stockpiling of topsoil, removal or supply and placement of materials necessary to achieve the grades and drainage patterns documented in the Drawings at the sub grade (mud grade) level.
- E14.2 This specification is supplemental to CW 3010 , CW 3110 and CW 3170. Materials and installation are to conform to these standard Specifications.

#### Construction Methods

- E14.3 Prior to beginning work the Contractor shall establish limits of grading and stake finish grades in a manner consistent with the drawings. Contractor shall not proceed until Contract Administrator has reviewed the grades and the limits for conformance with the design intent and authorized the Contractor to proceed. This contractor shall remain responsible for attaining the design grades irrespective of the Contract Administrators review.
- E14.4 Clearing and grubbing operations are to be completed to the satisfaction of the Contract Administrator prior to the beginning of Earthwork and Grading.
- E14.5 Contractor shall limit grading operations to the minimum area required to construct the Works..

E14.6 Grading operations are to be conducted to ensure adequate subcut to install surface materials and structures as detailed on the drawings while still ensuring positive drainage of the finished project.

E14.7 Subgrade shall be completed and accepted by the Contract Administrator prior to the installation of other works.

Method of Measurement and Basis of Payment

E14.8 There will be no separate measurement or payment for stockpiling of topsoil, clearing and grubbing operations and it shall be considered incidental to other aspects of the Work.

E14.9 There shall be no separate measurement of payment for excavation and the supply or removal of fill material required for installation of sod, site furniture, asphalt or concrete work or skate features to the elevations indicated as it shall be considered incidental to the supply and installation of those items.

**E15. STAKES AND MARKS**

E15.1 The Contractor shall be responsible for setting control and completing all grading, underground services, utilities and other work executed under this contract to all lines, elevations, reference points and measurements based on plans, specifications, basic control points and benchmark(s) supplied by Contract Administrator.

E15.2 The Contractor shall employ competent person(s) to lay out work.

E15.3 If requested, the Contract Administrator will provide the Contractor with the basic layout plan in AutoCAD dwg format. The Contract Administrator will not provide any survey points, survey data, contours, or DTMs (Digital Terrain Models).

E15.4 Supply Contract Administrator all Survey data utilized upon request. Further, the Contractor will rectify all errors in position, levels, alignment or dimensions at no cost to the City.

E15.5 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.

E15.6 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.

E15.7 Before commencing Work, the Contractor shall satisfy him/herself 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.

E15.8 The Contractor shall determine and provide all dimensions and elevations measured from the stakes or marks.

E15.9 The Contract Administrator shall be advised of the staking of the work 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.

E15.10 The Contract Administrator shall only review the stakes and marks for general conformance to the proposed design. The Contractor shall not rely on this review as authoritative or comprehensive review of the staking and shall remain responsible for conformance to the design intent and drawings following this review.

E15.11 There shall be no separate payment for the layout of the works or the provision of stakes or marks, these items being considered incidental to the items of work being laid out

## **E16. SODDING**

### General Description

E16.1 This specification covers the removal of existing grass, topsoil or sand, levelling or excavating the area designated to receive sod, supply and installation of topsoil and sod, the topdressing and seeding of seam, edges and areas of Site restoration.

### Materials and Methods

E16.2 Topsoil and sod are to be supplied and installed as per CW 3510 and CW 3540.

E16.3 Areas to be Sodded are to be laid out on Site and approved by Contract Administrator before commencing Work. Work outside the limits approved by the Contract Administrator will not be measured and will not be paid for under this section but considered incidental to the Work. Such incidental items that will not be measured include but are not limited to topsoil and sod placed at the edge of new paving. Incidental Site restoration shall conform to the same Specifications.

E16.4 Where edges of excavation abut existing turf those edges are to be cut with a sod cutter prior to excavation.

E16.5 The compacted depth of topsoil shall be minimum 10 cm.

### Payment

E16.6 Payment will be at the contract unit Price for item 'Topsoil and Sod' on Form B:Prices. Price shall be payment in full for supplying materials and for performing all operations listed below:

- (a) Supply and installation of topsoil.
- (b) Supply and placement of sod.
- (c) Maintenance of sod.

## **E17. LANDSCAPE MAINTENANCE**

E17.1 This section shall cover the maintenance for all sod and shrub beds installed during the course of this Contract.

E17.2 Sod Maintenance shall be as per CW 3510.

E17.3 Active maintenance is to include;

- (a) Watering
- (b) Weeding control
- (c) Pest and Disease control
- (d) Pruning
- (e) Tree Support and tie maintenance and adjustment
- (f) Winter protection

E17.4 Water shall be applied as required to maintain optimum conditions. During dry weather the Contractor should expect to water on a weekly basis. Contractor is to avoid over watering by reducing the frequency during wet weather.

E17.5 Contractor shall maintain planting beds in a weed free condition throughout the maintenance period. Weed should be removed frequently and not left to establish for a period greater than 10 days.

- E17.6 Contractor is to control pests and diseases as required. Contractor shall inform the Contract Administrator prior to applying pesticides and use only those pesticides of low mammalian toxicity. Persons applying pesticides shall have a valid pesticide applicators license and strictly follow manufacturers instructions regarding the application of the chemicals and the safety precautions required to apply them.
- E17.7 Pruning shall be done by persons with a valid Manitoba Tree Pruners license. Pruning shall be as necessary to remove dead or damaged limbs as well as maintain species typical form and healthy growth. Pruning shall also be done to ensure clearances to all pathways and other facilities as well as maintain safe viewed into the facility. Pruning shall be done in accordance with industry accepted methods to standard good practice. In the event of a disagreement the opinion of the Contract Administrator as to what constituted standard good practice shall be considered final.
- E17.8 Maintenance operation are to be diarised. Each diary entry is to contain the following;
- (a) Maintenance Site Forman
  - (b) Date
  - (c) Weather conditions
  - (d) Actions performed
- E17.9 Maintenance of the sodded areas shall be deemed a part of Topsoil, Sod and Shrub Bed preparation and paid for as per CW 3510.

## **E18. SITE FURNITURE**

### General Description

- E18.1 This specification shall cover the installation of Benches, Picnic Table, and Waste Receptacles, as called for on the drawings. The Contractor shall furnish all labour, materials, equipment and services necessary to complete the Work as shown and specified herein.

### Materials

- E18.2 All materials supplied under this specification shall be of a type approved by the Contract Administrator, and shall be subject to inspection and testing by the Contract Administrator.
- E18.3 Benches shall be Tache Bench Composite c.w. Arms as per SCD-121A and supplied by the City of Winnipeg FOB Central Manufacturing facility at no cost to the Contractor. They shall be as indicated on the drawings.
- E18.4 Picnic Table shall be Wheelchair Tache Style Metal Frame Picnic Table as per SCD-122A and supplied by the City of Winnipeg FOB Central Manufacturing facility at no cost to the Contractor. They shall be located as indicated on Site by the Contract Administrator. Colour shall be Cedar.
- E18.5 Waste Receptacle(s) is to be Metal Receptacle Side Opening Metal Slat type as per SCD-119 R2 City of Winnipeg metal slat waste receptacle as supplied by the City of Winnipeg FOB Central Manufacturing facility at no cost to the Contractor. They shall be located as indicated on Site by the Contract Administrator.
- E18.6 Contact for site furniture
- (a) Contact for benches and waste receptacles:
    - Aaron Lennon
    - Supervisor of Central Repair/Manufacturing Facility
    - City of Winnipeg
    - Fleet Management Agency Division
    - Public Works Department
    - 215 Tecumseh St

Winnipeg. MB R3E 3S4

Email: [ALennon@winnipeg.ca](mailto:ALennon@winnipeg.ca)

(b) Contact for Picnic Tables

(i) Carl Woloshyn [cwoloshyn@winnipeg.ca](mailto:cwoloshyn@winnipeg.ca) Ph: 204-986-3835

#### Construction Methods

E18.7 Contractor shall obtain waste receptacle(s), benches and picnic tables from the City and deliver to the jobsite.

E18.8 All fixtures and furnishings are to be installed as per manufactures instructions.

(a) Install waste receptacle as per SCD-119..

(b) Install Benches as per SCD-121A

(c) Install picnic table as per SCD-122A.

E18.9 Each item is to be installed into a pad constructed from 15 cm depth 37 mm down limestone with a top coat of 5 cm depth of 6mm down limestone.

(a) Existing ground is to be excavated prior to installation

(b) Limestone is to be placed and compacted in layers.

(c) Base is to be compacted in place with means of a plate compactor.

(d) Dimension of pad is to be dimension of site furniture plus the following:

(i) For Benches 15 cm on all sides except the front which is to be 1 m.

(ii) For Waste Receptacles 30 cm on all sides

(iii) For picnic tables 1 m on all sides.

(e) Top surface of pad is to be no less than 2 cm above surrounding grade.

E18.10 All concrete used in installation is to meet CW 2160.

E18.11 All furnishings and fixtures to be installed plumb and true to correct elevations and location, as directed the Contract Administrator. The Contractor shall confirm proposed locations of all site furnishings with Contract Administrator prior to installation.

E18.12 All furnishings and fixtures to be carefully handled so that no parts will be bent, broken or otherwise damaged. Hammering, which will injure or distort fixture, is prohibited.

#### Method of Measurement and Basis of Payment

E18.13 Measurement and payment shall be for delivery and installation of each as per each items listing on Form B: Prices. Said price shall include all Work necessary to deliver and install each item of Site furniture as well as the cost of providing a crusher fines pad for each item.

#### **E19. NEW POOL DECK**

E19.1 New pool deck shall be constructed with reinforced concrete as per the drawings.

E19.2 Concrete paving and testing shall be as per CW 3325 and as per the drawings

E19.3 Contractor shall ensure and provide sufficient notice to ensure that compaction is tested and approved and reinforcing is reviewed by the Contract Administrator prior to pouring operations.

E19.4 Payment shall be as per Form B: Prices for the item named "New Pool Deck and Zero Entry".



## **E20. WATER PLAY COMPONENTS**

- E20.1 Shall be from one manufacturer to assure compatibility of spare parts for fixtures.
- E20.2 Durable, vandal resistant anchors, finishes, treatments.
- E20.3 Mounting anchors must be flush with pool basin surface and otherwise meet all Province of Manitoba requirements.
- E20.4 Accepted Products:
- (a) Type A Fixtures to be;
    - (i) WaterPlay Hoo Lee Post C02-019;
    - (ii) Water Odyssey Cool Stick W050;
    - (iii) Vortex WaterGarden Leaf N°1 VOR 7548; or
    - (iv) approved equal in accordance with B7.
  - (b) Type B Fixtures to be;
    - (i) WaterPlay Twist 'N' Spill w. wheel handle C02-279;
    - (ii) Water Odssey Just A Bucket W147;
    - (iii) Vortex WaterGarden Flower N°7 VOR 7559; or
    - (iv) approved equal in accordance with B7.
  - (c) Type C Fixtures to be;
    - (i) WaterPlay Daisy Mae (Wavy) C02-023-W;
    - (ii) Water Odssey Water Woopee W024;
    - (iii) Vortex Sunspray N°2 VOR 7579; or
    - (iv) approved equal in accordance with B7.
  - (d) Type D Fixtures to be:
    - (i) WaterPlay Archway C02-052;
    - (ii) Water Odssey Shimmer Sheet W132;
    - (iii) Vortex Plux Arch VOR 7397; or
    - (iv) approved equal in accordance with B7.
- E20.5 Colours of fixtures are to be determined after award upon consultation with Contract Administrator and in accordance with City of Winnipeg Accessibility Design Standards.
- E20.6 Contractor is to provide shop drawing including mounting method, anchoring, reinforcing for anchor, and connection of grounding and water. Drawing shall be stamped by an engineer registered to work in the Province of Manitoba.
- E20.7 Payment shall be as per Form B:Prices for appropriate items. Payments shall be for fixture, installation, and connection including grounding and anchoring.

## **E21. MECHANICAL/PLUMBING/ELECTRICAL SYSTEMS**

- E21.1 This section shall cover the mechanical, plumbing and electrical systems including the control system and the water quality management system.
- E21.2 Mechanical system shall consist of a water treatment loop which shall feed the wading pool recirculation system as well as supply the spray features.
- (a) The Drawings include a schematic for the water treatment loop which shall be considered conceptual in nature and indicative only of the City's intent. The Contractor shall be responsible for the final design and permitting of the treatment loop/ recirculation system on each of these sites.

- (b) In the case of Ducharme pool it is intended that the mechanical be integrated into the existing pool mechanical and where feasible use existing lines.
    - (i) Additional lines and piping will be required to service the new spray features.
    - (ii) The Contractor will be responsible for providing additional mechanical to sufficiently isolate the fill system from the recirculation system. It is expected that at minimum this will include an air gap and backflow preventers.
  - (c) In the case of East End wading pool it is intended that the existing fill and drain system be maintained 'as is' with the addition of an air gap and that the recirculation system will be separate and isolated from the pool fill system.
  - (d) The mechanical systems will include a concrete vault and metal cover to house the manifold and provide a location to gravity drain the lines.
    - (i) The mechanical vault shall be drained either by connection to the existing sewer or an automated sump system and pump.
    - (ii) Metal cover shall be galvanized or powder coated
  - (e) It is anticipated that the water treatment system and pump shall be housed as follows:
    - (i) At Ducharme in the existing mechanical room of the pool;
    - (ii) At East End in the mechanical room for the Community Centre.
      - (i) Provided sufficient space exists to accommodate mechanical and provide adequate clearance to service the mechanical then water treatment and pump may be housed in a new vault at East End.
      - (ii) If sufficient space is not available in the vault then the mechanical may be housed in the existing mechanical room.
  - (f) Controls must be easily accessible.
  - (g) Mountings must be structurally designed.
  - (h) Ensure all equipment, fixtures and devices requiring normal maintenance and or cleaning are to be mounted such that they are fully serviceable. Provide necessary isolation access doors, union fittings and the like.
  - (i) Pits must be accessible, easy maintenance and operation and have vandal resistant lockable entry point.
- E21.3 It is intended that the spray features and the pool recirculation system will operate continuously while the pool is in use and that the pool shall be filled at the beginning of the day and drained to sewer at the end of the day.
- E21.4 Recirculation system shall be designed to treat the water, provide continuous recirculation of the water into the pool basin, and provide water for the spray toys.
- (a) System shall be designed to ensure that a minimum turnover time for water in the pool of two hours is maintained.
- E21.5 The Water treatment system is to consist of, at minimum, the following:
- (a) Strainer
  - (b) Pump
  - (c) Chlorinator;
  - (d) Filter;
  - (e) UV treatment;
  - (f) Post UV Strainer.
- E21.6 The chlorination system is to meet the following performance standard;
- (a) Chlorination is to added automatically;
  - (b) Chlorination is to be a puck type system;

- (c) The system is to be designed to maintain the level of free available chlorine or equivalent in the pool between 1 mg/l and 5 mg/l at all times. This includes the level of the chlorine at the spray toy nozzles and the recirculation return into the pools.
- (d) The system shall be designed such that the combined residual chlorine level does not exceed 1.5 mb/l.
- (e) The system shall be designed such that the hydrogen ion concentration of the water in the pool is maintained within the range pH 7.2 to pH 7.8 unless otherwise approved by a public health inspector;

E21.7 The UV treatment system is to meet the following performance standard;

- (a) shall provide a uv level of 40 mj/cm2 or greater at end of life. End of life to be minimum 98% of new lamp output.
- (b) Shall included a drain valve, a temperature switch, an automated cleaning(wiper) system, and a UV intensity sensor.
- (c) shall be UL listed and conform to NSF 50 or third party testing to the NSF Standard.
- (d) An inline strainer shall be installed after the UV unit to capture broken lamp glass or sleeves.
- (e) Reactor shall be type 316L stainless steel.
- (f) Materials exposed to reactor to be UV resistant.
- (g) Controls to include panel, transformer as applicable and circuit breaker.
- (h) Plumb to allow isolation for service.
- (i) Provide spare parts including at minimum:
  - (i) Spare bulb
  - (ii) Quartz sleeve and 2 seals
  - (iii) 2 end cap seals
  - (iv) UV monitor seal
  - (v) Wiper blade and shaft seals
  - (vi) Face shield (to block UV light)
  - (vii) Wiper cloths and cleaning solution.

E21.8 Pump(s) shall be sized to maintain operation of the spray features and recirculation with a minimum excess capacity of 20%. A strainer shall be provided prior to the pump.

E21.9 Filter sized appropriately to the turnover and spray toy requirements shall be provided.

- (a) Filter shall be a cartridge type filter.

E21.10 Primary control system including activation switch, wiring schematics, controllers, valving, pressure regulators, ball valves manifold, etc., sufficient to start and activate the system shall be provided.

E21.11 Ventilation systems shall be designed to meet current standards described by A.S.H.R.A.E. and applicable

E21.12 Work to be performed by journeymen skilled tradesmen to the satisfaction of the Contract Administrator.

E21.13 All plumbing and electrical must comply to all regulatory authorities that have jurisdiction and manufactures recommended practices.

E21.14 All connections to existing services necessary to provide a complete working project shall be included. This includes but is not limited to electrical, water, and sewer.

E21.15 Mechanical markings to be in accordance with the following and approved by the Contract Administrator:

- (i) Canadian General Standards Board (CGSB).
- (ii) CAN/CGSB-1.60[M89], Interior Alkyld Gloss Enamel.
- (iii) CAN/CGSB-24.3[92], Identification of Piping Systems
- (iv) CAN/CGSB-149.1[M95].
- (v) CAN/CGSB-149.2[M91].

E21.16 Piping

- (i) All fittings to be galvanized or PVC. All fasteners to be Stainless Steel.
- (ii) All water lines to have proper slope and drain capability and blow out valves for fall servicing.
- (iii) Water service:
  - a. To be sized to suit proposed design requirements.
  - b. Piping to include a shock arrester.
  - c. Water Supply
    - (a) The existing water supply shall be maintained at both pools
    - (b) The existing piping shall be modified to ensure adequate separation from the water supply
      - (i) This separation shall be understood to include both backflow prevention and an air gap.
- (iv) Return lines are to be sized to permit adequate turnover and supply water features and recirculation.
- (v) All PVC underground piping to be minimum of schedule 80.
- (vi) All supply lines to the features to be low pressure poly pipe approved for 100 psi.
- (vii) The connections and piping shall meet all existing code and be acceptable to any applicable Authorities.
- (viii) The Contractor shall submit shop drawings for piping and connections stamped by a Registered Professional Engineer.

E21.17 Drains>Returns

- (i) Ducharme has two interconnected basin drains and it is anticipated these will be incorporated into the new solution.
  - (a) Basin drains at Ducharme are to be isolated from the City sewer lines during operation by means of backflow preventers or air gap. Such separation is to be to the satisfaction of the City's Waterworks and Waste department and the Provincial Health department.
- (i) East End Wading pool is to have two new interconnected return (drains) sized sufficiently to provide adequate return.
  - (a) Returns are to be anti-vortex drains complete with secured covers.
  - (b) Returns shall be minimum of 2 m apart.
  - (c) Deck Drains are to be provided
- (i) Deck drains, access lids, frames, etc. to be heavy duty non-corroding metal alloy or equally durable fibreglass or plastic construction.
- (ii) Drain lines are to gravity drain to facilitate winterization.

E21.18 Metering

- (i) It is expected that each wading pool will use the existing water supply and continue to use the existing metering.

E21.19 Electrical

- (i) All equipment must be CSA approved.

- (ii) Electrical work shall be sufficient to meet the mechanical system requirements.
- (iii) Grounding of all components within water play area.
- (iv) All electrical components to be protected by appropriate surge protection devices.
- (v) To meet all applicable requirements of authorities having jurisdiction.
- (vi) 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.

E21.20 Periodic review during the construction phase

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

E21.21 Payment shall be as per Form B:Prices at the price for items as appropriate. Items not specifically noted but necessary to provide a complete project are included under items 14 and 35 "New Piping and Miscellaneous Mechanical".

**E22. BASIN RESURFACING**

E22.1 This section shall cover the construction of a resilient overlay surfacing in the existing pool basin at East End Cultural Centre.

E22.2 Material to be AquaFlex porous surfacing or equal approved in accordance with B7.

- (a) Colour Type A to be Cobalt Blend
- (b) Colour Type B to be Wheat Blend

E22.3 Installation

- (a) Remove any existing paint from pool basin.
- (b) Power wash deck surface.
- (c) Install keyways in the existing spray heads, drain and the inside of the pool as per manufacturers recommendations
- (d) Install two coats of AF primer prior to AquaFlex layer
- (e) Install AquaFlex using the manufacturers approved bonding agent over the existing basin to a minimum thickness of 9.5 mm (1/8").
  - (i) Ensure sufficient quantity of AquaFlex is provided to ensure uneven surfaces in the existing basin are made even in the top surface of the AquaFlex. It is anticipated that this will require 20% added material.
  - (ii) Install AquaFlex when the ambient temperature is greater than 10 degrees celsius.
  - (iii) Do not install AquaFlex when it is raining or rain is forecast within 72 hours.
  - (iv) Protect the installed surface for a minimum of 72 hours following installation.
- (f) Payment shall be as per Form B:Prices at the price for the item "Basin Resurfacing".

**E23. COMMISSIONING**

E23.1 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.

- (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.

#### E23.2 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, part schedules, 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.
- (b) Manuals shall be submitted as three original copied bound an a three ring notebook complete with tabs to separate each section (first section to be table of contents) and one electronic copy in PDF format submitted on a USB drive.

#### E23.3 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.

#### E23.4 Record Drawings

- (a) Contractor is to maintain a set of white prints on site during the construction. These are to be continuously updated to accurately record any changes or deviations from the shop drawings including but not limited to buried line location and runs dimensioned from the existing buildings, conduit size etc..
- (b) Prior to requesting Substantial Performance the Contractor shall transfer this information onto a autocad drawing including any necessary corrections required to ensure accuracy, print a set of these drawings and sign them as a certification of accuracy, and provide both the printed set and the autocad drawings to the Contract Administrator.

- E23.5 Payment shall be as per Form B:Prices at the price for item "Commissioning".

### **E24. SITE RESTORATION**

- E24.1 Total Performance of the Work shall not be attained until the Contractor has cleaned up the Site and has removed all tools, equipment, waste, debris and surplus foundation earth to the satisfaction of the Contract Administrator. Unless otherwise specified, and as a condition of Total Performance the Contractor shall restore all areas of the Site beyond the established limit of Work, which have been disturbed by the Contractor's operations to as good as or better than the original condition to the satisfaction of the Contract Administrator. The Contractor shall pay all costs associated with this Work.