



THE CITY OF WINNIPEG

BID OPPORTUNITY

BID OPPORTUNITY NO. 279-2013

STURGEON HEIGHTS COMMUNITY CENTER SPRAY PAD

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PART B - BIDDING PROCEDURES

B1. CONTRACT TITLE

B1.1 STURGEON HEIGHTS COMMUNITY CENTER SPRAY PAD

B2. SUBMISSION DEADLINE

B2.1 The Submission Deadline is 4:00 p.m. Winnipeg time, April 25, 2013.

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 Contract Administrator or an authorized representative will be available at the Site from 1:30 pm to 2:30 pm on April 11, 2013 to provide Bidders access to the existing building.

B3.2 The Bidder is advised that:

- (a) The Bidder is responsible for inspecting the Place of the Work and for making whatever inquiries or arrangements necessary for it to become fully informed of the nature of the Place of the Work, including information regarding the subsurface conditions as made available by the City and topography of the site, and of the Work to be performed and all matters which may in any way affect the Work. Without limiting the foregoing, by the submission of its Bid, the Bidder acknowledges that it has investigated and satisfied itself as to:
 - (i) the nature of the Work;
 - (ii) the location and all conditions relating to the location of the Work including, but not limited to, accessibility, general character, surface and sub-surface conditions, information regarding the subsurface conditions as made available by the City, utilities, road, uncertainties of seasonal weather and all other physical, topographical, geological and geographic conditions;
 - (iii) the conditions, laws and restrictions applicable to the Work that might affect the performance of the Work;
 - (iv) all environmental risks, conditions, laws and restrictions applicable to the Work that might affect the Work; and
 - (v) magnitude of the construction work required to execute and complete the Work
- (b) The Bidder is fully responsible for obtaining all information required for the preparation of its Bid and for the execution of the Work. The City shall not be responsible for undertaking any investigations to assist the Bidder. All site information is made available only for the assistance of Bidders who must make their own judgment about its reliability, accuracy, completeness and relevance to the Work, and neither the City nor any representative of the City, including the Contract Administrator, gives any guarantee or representation that the additional information is reliable, accurate, complete or relevant.
- (c) The plans, drawings and specifications for this work may indicate information obtained from some of the record plans or drawings and existing conditions; however, the foregoing shall not relieve the Bidder from the responsibility of making an accurate inspection and survey of the site of the project and surrounding properties before submitting a bid, either personally or through a representative to familiarize himself with existing conditions that may in any manner affect cost, progress or performance of the work, including any federal, provincial, municipal laws, ordinances rules and regulations.

B3.3 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. ADDENDA

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

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

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

B5.2.2 The Bidder is responsible for ensuring that he/she has received all addenda and is advised to check the Materials Management Division website for addenda regularly and shortly before the Submission Deadline, as may be amended by addendum.

B5.2.3 The Bidder shall acknowledge receipt of each addendum in Paragraph 8 of Form A: Bid. Failure to acknowledge receipt of an addendum may render a Bid non-responsive.

B6. SUBSTITUTES

B6.1 The Work is based on the Plant, Materials and methods specified in the Bid Opportunity.

B6.2 Substitutions shall not be allowed unless application has been made to and prior approval has been granted by the Contract Administrator in writing.

B6.3 Requests for approval of a substitute will not be considered unless received in writing by the Contract Administrator at least five (5) Business Days prior to the Submission Deadline.

B6.4 The Bidder shall ensure that any and all requests for approval of a substitute:

- (a) provide sufficient information and details to enable the Contract Administrator to determine the acceptability of the Plant, Material or method as either an approved equal or alternative;

- (b) identify any and all changes required in the applicable Work, and all changes to any other Work, which would become necessary to accommodate the substitute;
- (c) identify any anticipated cost or time savings that may be associated with the substitute;
- (d) certify that, in the case of a request for approval as an approved equal, the substitute will fully perform the functions called for by the general design, be of equal or superior substance to that specified, is suited to the same use and capable of performing the same function as that specified and can be incorporated into the Work, strictly in accordance with the proposed work schedule and the dates specified in the Supplemental Conditions for Substantial Performance and Total Performance;
- (e) certify that, in the case of a request for approval as an approved alternative, the substitute will adequately perform the functions called for by the general design, be similar in substance to that specified, is suited to the same use and capable of performing the same function as that specified and can be incorporated into the Work, strictly in accordance with the proposed work schedule and the dates specified in the Supplemental Conditions for Substantial Performance and Total Performance.

B6.5 The Contract Administrator, after assessing the request for approval of a substitute, may in his/her sole discretion grant approval for the use of a substitute as an "approved equal" or as an "approved alternative", or may refuse to grant approval of the substitute.

B6.6 The Contract Administrator will provide a response in writing, at least two (2) Business Days prior to the Submission Deadline, only to the Bidder who requested approval of the substitute.

B6.6.1 The Bidder requesting and obtaining the approval of a substitute shall be entirely responsible for disseminating information regarding the approval to any person or persons he/she wishes to inform.

B6.7 If the Contract Administrator approves a substitute as an "approved equal", any Bidder may use the approved equal in place of the specified item.

B6.8 If the Contract Administrator approves a substitute as an "approved alternative", any Bidder bidding that approved alternative may base his/her Total Bid Price upon the specified item but may also indicate an alternative price based upon the approved alternative. Such alternatives will be evaluated in accordance with B17.

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

B6.10 Notwithstanding B6.2 to B6.9, and in accordance with B7.7, deviations inconsistent with the Bid Opportunity document shall be evaluated in accordance with B17.1(a).

B7. BID COMPONENTS

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

- (a) Form A: Bid;
- (b) Form B: Prices;
- (c) Design Drawings and Component Descriptions as per B11
- (d) Project Work Plan for each Site as per B12;
- (e) Systems Integration, and Economic Analysis for each Site as per B13.

B7.2 Further to B7.1, the Bidder should include the written correspondence from the Contract Administrator approving a substitute in accordance with B6.

B7.3 All components of the Bid shall be fully completed or provided, and submitted by the Bidder no later than the Submission Deadline, with all required entries made clearly and completely, to constitute a responsive Bid.

- B7.3.1 Bidders should submit one (1) unbound original (marked "original") and Six (6) copies.
- B7.4 The Bid Submission may be submitted by mail, or by courier or personal delivery.
- B7.5 If the Bid Submission is submitted by mail, courier or personal delivery, it shall be enclosed and sealed in an envelope clearly marked with the Bid Opportunity number and the Bidder's name and address, and shall be submitted to:
- The City of Winnipeg
Corporate Finance Department
Materials Management Division
185 King Street, Main Floor
Winnipeg, MB R3B 1J1
- B7.5.1 Samples or other components of the Bid Submission which cannot reasonably be enclosed in the envelope may be packaged separately, but shall be clearly marked with the Bid Opportunity number, the Bidder's name and address, and an indication that the contents are part of the Bidder's Bid Submission.
- B7.6 Bidders are advised not to include any information/literature except as requested in accordance with B7.1.
- B7.7 Bidders are advised that inclusion of terms and conditions inconsistent with the Bid Opportunity document, including the General Conditions, will be evaluated in accordance with B17.1(a).
- B7.8 Bids submitted by internet electronic mail (e-mail) or facsimile transmission (fax) will not be accepted.

B8. BID

- B8.1 The Bidder shall complete Form A: Bid, making all required entries.
- B8.2 Paragraph 2 of Form A: Bid shall be completed in accordance with the following requirements:
- (a) if the Bidder is a sole proprietor carrying on business in his/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 City of such business name shall be inserted.
- B8.2.1 If a Bid is submitted jointly by two or more persons, each and all such persons shall identify themselves in accordance with B8.2.
- B8.3 In Paragraph 3 of Form A: Bid, the Bidder shall identify a contact person who is authorized to represent the Bidder for purposes of the Bid.
- B8.4 Paragraph 10 of Form A: Bid shall be signed in accordance with the following requirements:
- (a) if the Bidder is a sole proprietor carrying on business in his/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 City of the business name, or by the registered City's authorized officials if the City is a partnership or a corporation.

- B8.4.1 The name and official capacity of all individuals signing Form A: Bid should be printed below such signatures.
- B8.4.2 All signatures shall be original.
- B8.5 If a Bid is submitted jointly by two or more persons, the word "Bidder" shall mean each and all such persons, and the undertakings, covenants and obligations of such joint Bidders in the Bid and the Contract, when awarded, shall be both joint and several.

B9. PRICES

- B9.1 The Bidder shall state a price in Canadian funds for each item of the Work identified on Form B: Prices.
- B9.2 The quantities listed on Form B: Prices are to be considered approximate only. The City will use said quantities for the purpose of comparing Bids.
- B9.3 The quantities for which payment will be made to the Contractor are to be determined by the Work actually performed and completed by the Contractor, to be measured as specified in the applicable Specifications.
- B9.4 Payments to Non-Resident Contractors are subject to Non-Resident Withholding Tax pursuant to the Income Tax Act (Canada).

B10. QUALIFICATION

- B10.1 The Bidder shall:
- (a) undertake to be in good standing under The Corporations Act (Manitoba), or properly registered under The Business Names Registration Act (Manitoba), or otherwise properly registered, licensed or permitted by law to carry on business in Manitoba; and
 - (b) be financially capable of carrying out the terms of the Contract; and
 - (c) have all the necessary experience, capital, organization, and equipment to perform the Work in strict accordance with the terms and provisions of the Contract.
- B10.2 The Bidder and any proposed Subcontractor (for the portion of the Work proposed to be subcontracted to them) shall:
- (a) be responsible and not be suspended, debarred or in default of any obligations to the City. A list of suspended or debarred individuals and companies is available on the Information Connection page at The City of Winnipeg, Corporate Finance, Materials Management Division website at <http://www.winnipeg.ca/matmgt/debar.stm>
- B10.3 The Bidder and/or any proposed Subcontractor (for the portion of the Work proposed to be subcontracted to them) shall:
- (a) have successfully carried out work similar in nature, scope and value to the Work; and
 - (b) be fully capable of performing the Work required to be in strict accordance with the terms and provisions of the Contract; and
 - (c) have a written workplace safety and health program if required pursuant to The Workplace Safety and Health Act (Manitoba);
- B10.4 Further to B10.3(c), the Bidder shall, within five (5) Business Days of a request by the Contract Administrator, provide proof satisfactory to the Contract Administrator that the Bidder/Subcontractors has a workplace safety and health program meeting the requirements of The Workplace Safety and Health Act (Manitoba), by providing:
- (a) a valid COR certification number under the Certificate of Recognition (COR) Program administered by the Manitoba Construction Safety Association or by the Manitoba Heavy Construction Association's Safety, Health and Environment Program; or

- (b) a report or letter to that effect from an independent reviewer acceptable to the City. (A list of acceptable reviewers and the review template are available on the Information Connection page at The City of Winnipeg, Corporate Finance, Materials Management Division website at <http://www.winnipeg.ca/matmgt/> .

B10.5 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.

B10.6 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.

B11. DESIGN DRAWINGS AND COMPONENT DESCRIPTIONS

B11.1 The Bidder shall submit drawings that illustrate the proposed design and spray equipment, such as a plan, perspective, and any other submissions sufficient to illustrate the design intent. Additional drawings may be requested prior to award for more detailed information.

B11.2 Design Drawings and Component Descriptions shall be considered as one item for the purposes of evaluation and shall be read together.

B11.3 Design Drawings and Component Descriptions shall include at minimum:

- (a) Spray Pad Plan clearly showing the location and orientation of all spray components
- (b) Perspective sketches, sections, details and other submissions sufficient to illustrate the nature and overall quality of the design and addressing the following:
 - (i) The overall quality of the design including integration with the surrounding park and amenities;
 - (ii) Concept and functionality of the design and its aesthetic appeal;
 - (iii) Quality, durability and warranty of materials;
 - (iv) Universal design/ Inclusive design;
 - (v) How the design will work within the constraints
 - (vi) Overall play experiences.
- (c) an itemized list of play components being provided.
- (d) component description and / or graphic or catalogue reference outlining specifications of play equipment components.

B11.4 Drawings shall be submitted in a format no greater than tabloid size (11"x17").

B11.5 Text on drawings shall be not less than 8 pt. (2.82mm) size.

B12. PROJECT WORKPLAN

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

- (a) Provide an understanding of the functional and technical issues and considerations, on the project requirements and budget.
- (b) An organization chart identifying the major team members and showing the relationship, roles and responsibilities of the major team members who will perform the work.
- (c) Provide a detailed methodology for each stage of the project. Specifics are to include a detailed description of tasks, task assignments, and responsibilities.
- (d) Provide a proposed project work plan including a Gantt chart, identification of major stages of the work, critical dates and project milestones.

- (e) Provide a methodology for delivering the project including
 - (i) schedule
 - (ii) quality assurance
 - (iii) budget control and assurance
 - (iv) risk management
 - (v) a description of the proposed commissioning process
 - (vi) and a clear description of the training being proposed including;
 - ◆ Identification of training staff
 - ◆ Syllabus;
 - ◆ Number of training days for each session;
 - ◆ Expected City supplied resources;

B13. SYSTEMS INTEGRATION AND ECONOMIC ANALYSIS

- B13.1 A brief description of how the spray pad components will operate.
- B13.2 Mechanical and Electrical system schematics developed in sufficient detail to describe the intended operation. Schematics must include a process flow diagram of the project.
- B13.3 The following information:
 - (a) Number and type of spray features and drains.
 - (b) Spray pad treatment tank volume.
 - (c) Feature and filter flow rates, turnover and filtration rate.
 - (d) Patron use (daily maximum and average).
 - (e) Detailed description of filtration, recirculation equipment and chemical feed equipment.
 - (f) Hydraulic computations including head loss in all piping and recirculation equipment.
 - (g) Pump curves, showing that the proposed recirculation pump can adequately pump proposed flows.
- B13.4 The maintenance schedule for and anticipated maintenance costs associated with the spray pad features being proposed.

B14. OPENING OF BIDS AND RELEASE OF INFORMATION

- B14.1 Bids will not be opened publicly.
- B14.2 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>
- B14.3 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/>
- B14.4 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.

B15. IRREVOCABLE BID

- B15.1 The Bid(s) submitted by the Bidder shall be irrevocable for the time period specified in Paragraph 9 of Form A: Bid.
- B15.2 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.

B16. WITHDRAWAL OF BIDS

- B16.1 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.
- B16.1.1 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.
- B16.1.2 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.
- B16.1.3 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 B16.1.3(b), declare the Bid withdrawn.
- B16.2 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 B15.2 shall be liable for such damages as are imposed upon the Bidder by law and subject to such sanctions as the Chief Administrative Officer considers appropriate in the circumstances. The City, in such event, shall be entitled to all rights and remedies available to it at law.

B17. EVALUATION OF BIDS

- B17.1 Award of the Contract shall be based on the following bid evaluation criteria:
- (a) compliance by the Bidder with the requirements of the Bid Opportunity or acceptable deviation there from (pass/fail);
 - (b) qualifications of the Bidder and the Subcontractors, if any, pursuant to B10 (pass/fail);
 - (c) Total Bid Price(10 points);
 - (d) Design Drawings and Component Description (50%)
 - (e) Project Work Plan (25%)
 - (f) Systems Integration and Economic Analysis (15%)
 - (g) economic analysis of any approved alternative pursuant to B6.
- B17.2 Further to B17.1(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.
- B17.3 Further to B17.1(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.

- B17.4 Further to B17.1(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.
- B17.4.1 If there is any discrepancy between the Total Bid Price written in figures, the Total Bid Price written in words and the sum of the quantities multiplied by the unit prices for each item, the sum of the quantities multiplied by the unit prices for each item shall take precedence.
- B17.4.2 Further to B17.1(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.
- B17.4.3 Further to B17.1(c) the Award Authority may reject a Bid as being non-responsive if it exceeds the budget as shown on Form B:Prices.
- B17.4.4 The Total Bid Price shall be evaluated with a weighting of 10 points out of a total of 100 possible points. As such, the lowest Bidder shall receive the full 10 points, and the second lowest Bidder and subsequent Bidders shall be pro-rated accordingly.
- B17.5 Further to B17.1(d) the Design Drawings and Component Descriptions shall be evaluated with a weighting of 50 points out of a total of 100 possible points.
- B17.5.1 The Design Drawings and Component Descriptions shall be evaluated on the following criteria:
- (a) Quality and nature & diversity of the play events. Implementation of a consistent theme if a theme is deemed a part of the proposal (15)
 - (b) Layout of the play events in relation to each other (15)
 - (c) Use of universal design principles (10)
 - (d) Quality, durability and warranty of materials (10)
- B17.6 Further to B17.1(e) the Project Work Plan shall be evaluated with a weighting of 25 points out of a total of 100 possible points.
- B17.6.1 The Project Work Plan shall be evaluated on the following criteria:
- (a) Consideration of functional and technical issues (15)
 - (b) Clarity and appropriateness of Project delivery schedule (5)
 - (c) Consideration of project delivery methodology (5)
- B17.7 Further to B17.1(f) the Systems Integration and Economic Analysis shall be evaluated with a weighting of 15 points out of a total of 100 possible points.
- B17.7.1 The Systems Integration and Economic Analysis shall be evaluated on the following criteria:
- (a) Review of operational considerations (5)
 - (b) Maintenance schedule and operational costs. (10)

B18. AWARD OF CONTRACT

- B18.1 The City will give notice of the award of the Contract or will give notice that no award will be made.
- B18.2 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.
- B18.2.1 Without limiting the generality of B18.2, 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.

B18.3 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 B17.

B18.3.1 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.

B18.4 Notwithstanding C4, the City will issue a Purchase Order to the successful Bidder in lieu of the execution of a Contract.

B18.5 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
- 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 building, spray pad and fixtures, civil, mechanical and electrical work, paving and landscaping, and related works at the Sturgeon Heights Community Club Spray Pad. The work includes but is not necessary limited to:

- (a) Design, supply and installation of all products, materials, structures, equipment, accessories and services necessary for and incidental to the completion of all work shown on the Drawings and specified within the specifications..
- (b) The work generally includes infrastructure and equipment for a spray pad. The works to complete site development, concrete and paving, spray pad features, building, water connections, electrical, water treatment, waste water disposal, holding tank, landscaping and commissioning will be completed under this contract.

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

- (a) Design and Construct dual loop water treatment and overall operations to operate as a fully functional spray park. The City acknowledges that there are numerous types of such systems however systems proposed by a bidder must meet all conditions outlined in the plans and specifications. Supply the complete components with all equipment and accessories necessary for proper operation and control, including all necessary valves, piping, and internal power and control wiring. Ensure entire operation of spray park is automatic.
- (b) Design and Construct new building. Install pumping/water treatment skid prior to constructing walls.
- (c) Supply and install underground water piping and electrical.
- (d) Supply and install holding tank, diverter valve and related appurtenances.
- (e) Supply and install Complete spray pad and related spray features and appurtenances.
- (f) Relocate Manitoba Hydro electrical service wires from existing building to new building. Contractir to arrange for and co-ordinate with Mb. Hydro. Mb. Hydro costs shall be paid by the City exclusive to this contract. Install a new electrical service in the new building and feed the existing electrical panel in the existing building from the new building with underground conductors.
- (g) Supply and install walkways and other paved areas.
- (h) Supply and install site furnishings and chain link gates.
- (i) Supply, install and maintain soft landscaping.
- (j) Supply and install all electrical and water pumping/treatment skid and related appurtenances.
- (k) Provide operating and maintenance manuals.
- (l) Commission works and winterize.

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 B7.5.

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. NOTICES

D5.1 Except as provided for in C23.2.2, all notices, requests, nominations, proposals, consents, approvals, statements, authorizations, documents or other communications to the Contractor shall be sent to the address or facsimile number identified by the Contractor in Paragraph 2 of Form A: Bid.

D5.2 All notices, requests, nominations, proposals, consents, approvals, statements, authorizations, documents or other communications to the City, except as expressly otherwise required in D5.3, D5.4 or elsewhere in the Contract, shall be sent to the attention of the Contract Administrator at the facsimile number identified in D3.1.

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

The City of Winnipeg
Chief Financial Officer

Facsimile No.: 204 949-1174

D5.4 All notices, requests, nominations, proposals, consents, approvals, statements, authorizations, documents or other communications required to be submitted or returned to the City Solicitor shall be sent to the following facsimile number:

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

Facsimile No.: 204 947-9155

SUBMISSIONS

D6. AUTHORITY TO CARRY ON BUSINESS

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

D7. SAFE WORK PLAN

D7.1 The Contractor shall provide the Contract Administrator with a Safe Work Plan at least five (5) Business Days prior to the commencement of any Work on the Site but in no event later than the date specified in C4.1 for the return of the executed Contract.

D7.2 The Safe Work Plan should be prepared and submitted in the format shown in the City's template which is available on the Information Connection page at The City of Winnipeg, Corporate Finance, Materials Management Division website at <http://www.winnipeg.ca/matmgt/Safety/default.stm>

D8. INSURANCE

D8.1 The Contractor shall provide and maintain the following insurance coverage:

- (a) commercial general liability insurance, in the amount of at least two million dollars (\$2,000,000.00) inclusive, with The City of Winnipeg, Dean Spearman Landscape Architect, JR Cousin Consultants Ltd. and Tower Engineering 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.

D8.2 Deductibles shall be borne by the Contractor.

D8.3 The Contractor shall provide the Contract Administrator with a certificate(s) of insurance, referencing the Bid Number or the specific operations to be performed, 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 the date specified in C4 for the return of the executed Contract.

D8.4 The Contractor shall not cancel, materially alter, or cause each policy to lapse without providing at least thirty (30) Calendar Days prior written notice to the Contract Administrator.

D9. PERFORMANCE SECURITY

D9.1 If the Contract Price exceeds 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.

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

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

D10. SUBCONTRACTOR LIST

D10.1 The 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.

D11. DETAILED WORK SCHEDULE

D11.1 Project Schedule

- (a) Within 5 working days from Contract award date, meet with Contract Administrator to discuss scope and approach of project construction operations, submittals for review of project milestones and to be informed how and when data must be supplied to Contract Administrator to facilitate monitoring of work.
- (b) Within 10 working days from Contract award date, provide to Contract Administrator, and revise as required, a project schedule and control system specified under this section for this Contract, as well as all information and assistance necessary to integrate work of this contract into the overall system.
- (c) The schedule shall be based on techniques such as precedence or critical path method (CPM) for planning, scheduling, monitoring and reporting of project progress. The schedule must cover period of at least four months beginning from date of contract award, with activity durations not exceeding 15 days. Clearly identify all major schedule items, including, but not limited to:
 - (i) Project Award
 - (ii) Submittal of shop drawings and samples
 - (iii) Mobilization of equipment / Delivery of materials
 - (iv) Construction start
 - (v) Underground.
 - (vi) Concrete pour(s)
 - (vii) Material testing
 - (viii) Placement of treatment skid.
 - (ix) Paving
 - (x) Building erection.
 - (xi) Holding tank.
 - (xii) Mechanical.
 - (xiii) Electrical.
 - (xiv) Landscaping
 - (xv) Site Furnishings and Fences
 - (xvi) Commissioning.
 - (xvii) Winterizing
 - (xviii) Anticipated completion date.
 - (xix) All project-specific milestones
- (d) The submitted schedule must provide sufficient information to allow the preparation of a Work Breakdown Structure (WBS).

D11.2 Format

- (a) Prepare a schedule in the form of a Gantt (horizontal bar) chart.
- (b) Provide a separate bar for each trade and sub-trade, and major elements of construction.
- (c) Submit listing to Contract Administrator for approval.
- (d) List items in chronological order of the start of each item of work.

D11.3 Updating, Monitoring and Reporting Progress

- (a) Arrange for participation on site and off site of subcontractors and suppliers, as necessary, for purpose of planning, scheduling, updating and progress monitoring.
- (b) Inspect whole of work with Contract Administrator at least once per month to establish progress on each current activity shown on applicable schedules, indicating changes in activity durations and start/finish/imposed dates. Include written explanations on activities which are over- running estimated time. If any such activities are on critical path, indicate what corrective action will be taken to bring them back on schedule. Update and resubmit schedules including monthly cash flows as required.
- (c) Immediately after distribution of monthly monitor reports meet with Contract Administrator to determine remedial actions and necessity for updating total project schedule.

SCHEDULE OF WORK

D12. COMMENCEMENT

D12.1 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.

D12.2 The Contractor shall not commence any Work on the Site until:

- (a) the Contract Administrator has confirmed receipt and approval of:
 - (i) evidence of authority to carry on business specified in D6;
 - (ii) evidence of the workers compensation coverage specified in C6.15;
 - (iii) the Safe Work Plan specified in D7;
 - (iv) evidence of the insurance specified in D8;
 - (v) the performance security specified in D9; and
 - (vi) the Subcontractor list specified in D10.
- (vii) The Detailed Work Schedule specified in D11.
- (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.

D12.3 The Contractor shall commence the Work on the Site within seven (7) Working Days of receipt of the Purchase Order.

D12.4 The City intends to award this Contract by May 17, 2013.

D12.4.1 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.

D13. SUBSTANTIAL PERFORMANCE

D13.1 The Contractor shall achieve Substantial Performance by September 30, 2013.

D13.2 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.

D13.3 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.

D14. TOTAL PERFORMANCE

- D14.1 The Contractor shall achieve Total Performance by October 15, 2013.
- D14.2 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.
- D14.3 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.

D15. LIQUIDATED DAMAGES

- D15.1 If the Contractor fails to achieve Substantial Performance and/or Total Performance in accordance with the Contract by the day fixed herein for Substantial Performance, the Contractor shall pay the City five hundred dollars (\$500.00) per Working Day for each and every Working Day following the day fixed herein for Substantial Performance and/or Total Performance during which such failure continues.
- D15.2 The amount specified for liquidated damages in D15.1 is based on a genuine pre-estimate of the City's damages in the event that the Contractor does not achieve Substantial Performance and/or Total Performance by the day fixed herein for same.
- D15.3 The City may reduce any payment to the Contractor by the amount of any liquidated damages assessed.

D16. SCHEDULED MAINTENANCE

- D16.1 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 CW3510;
 - (b) Landscape Maintenance as specified in E32;
 - (c) Spray Pad Winterization as specified in 01820.
 - (d) Spray pad start up (spring 2014) as specified in 01820.
- D16.2 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

D17. JOB MEETINGS

- D17.1 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.
- D17.2 The Contract Administrator reserves the right to cancel any job meeting or call additional job meetings whenever he/she deems it necessary.

D18. PRIME CONTRACTOR – THE WORKPLACE SAFETY AND HEALTH ACT (MANITOBA)

D18.1 Further to C6.24, the Contractor shall be the Prime Contractor and shall serve as, and have the duties of the Prime Contractor in accordance with The Workplace Safety and Health Act (Manitoba).

MEASUREMENT AND PAYMENT

D19. INVOICES

D19.1 Further to C12, the Contractor shall submit an invoice for each portion of Work performed. to:

The City of Winnipeg
Corporate Finance - Accounts Payable
4th Floor, Administration Building, 510 Main Street
Winnipeg MB R3B 1B9

Facsimile No.: 204-949-0864
Email: CityWpgAP@winnipeg.ca

D19.2 Invoices must clearly indicate, as a minimum:

- (a) the City's purchase order number;
- (b) date of delivery;
- (c) delivery address;
- (d) type and quantity of work performed;
- (e) the amount payable with GST and MRST shown as separate amounts; and
- (f) the Contractor's GST registration number.

D19.3 The City will bear no responsibility for delays in approval of invoices which are improperly submitted.

D19.4 Bids Submissions must be submitted to the address in B7.5.

D20. PAYMENT

D20.1 Further to C12, the City may at its option pay the Contractor by direct deposit to the Contractor's banking institution.

WARRANTY

D21. WARRANTY

D21.1 Notwithstanding C13.2, the warranty period shall begin on the date of Total Performance and shall expire one (1) year thereafter, except where longer warranty periods are specified in the respective Specification sections, unless extended pursuant to C13.2.1 or C13.2.2, in which case it shall expire when provided for thereunder.

D21.1.1 For the purpose of Performance Security, the warranty period shall be one (1) year.

D21.2 Notwithstanding C13.2, the Contract Administrator may permit the warranty period for a portion or portions of the Work to begin prior to the date of Total Performance if a portion of the Work cannot be completed because of unseasonable weather or other conditions reasonably beyond the control of the Contractor but that portion does not prevent the balance of the Work from being put to its intended use.

D21.2.1 In such case, the date specified by the Contract Administrator for the warranty period to begin shall be substituted for the date specified in C13.2 for the warranty period to begin.

FORM H1: PERFORMANCE BOND
(See D9)

KNOW ALL MEN BY THESE PRESENTS THAT

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

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

_____ dollars (\$_____)

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

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

BID OPPORTUNITY NO. 279-2013

STURGEON HEIGHTS COMMUNITY CENTER SPRAY PAD

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

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

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

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

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

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

_____ day of _____, 20____ .

SIGNED AND SEALED
in the presence of:

(Witness as to Principal if no seal)

(Name of Principal)

Per: _____ (Seal)

Per: _____

(Name of Surety)

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

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

(Date)

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

RE: PERFORMANCE SECURITY - BID OPPORTUNITY NO. 279-2013
STURGEON HEIGHTS COMMUNITY CENTER SPRAY PAD

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

(Name of Contractor)

(Address of Contractor)

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

_____ Canadian dollars.

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

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

Partial drawings are permitted.

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

(Address)

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

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

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

(Date)

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

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

This credit is subject to the Uniform Customs and Practice for Documentary Credit (1993 Revision), International Chamber of Commerce Publication Number 500.

(Name of bank or financial institution)

Per: _____
(Authorized Signing Officer)

Per: _____
(Authorized Signing Officer)

PART E - SPECIFICATIONS

GENERAL

E1. APPLICABLE SPECIFICATIONS AND DRAWINGS

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

<u>Specification No.</u>	<u>Specification Title</u>
01050	Field Surveying
01340	Shop Drawings
01410	Quality Assurance (Turnkey Works)
01700	Project Closeout
01720	Project Record
01730	Operating and Maintenance Requirements
01820	Demonstration and Training
02716	Holding Tank, Screen, Diverter and Related Underground Works
04200	Masonry Building
15200	Water Treatment and Control Systems
260501	Common Work Results - Electrical
260528	Grounding - Secondary
260544	Installation of Cables in Trenches and in Ducts
262417	Panelboards Breaker Type
264313	Surge Protector Device
281301	Electronic Security Rough In Requirements

<u>Drawing No.</u>	<u>Drawing Name/Title</u>
L1	Cover Sheet
L2	Scope Plan
L3	Layout Plan
L4	Tree Protection / Demolition Plan
L5	Grading Plan
M1	Building and Service Line Piping Layout
M2	Building and Piping Details
E1	Electrical Plan
E2	Electrical Details

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. SITE VERIFICATION

- E3.1 Further to C3.1,
- (a) Prior to commencing actual construction work, check field conditions, obtain and confirm actual site dimensions, examine surface conditions, etc. as required to ensure correct fabrication and execution of the work.
 - (b) Examine previously constructed work. Notify Contract Administrator in writing of any conditions which may prejudice proper completion of this work. Commencement of construction constitutes acceptance of existing conditions, and means dimensions have been considered, verified and are acceptable.
 - (c) Contractor shall pay all costs for his/her on site review and examination.
- E3.2 The City will not be conducting test holes. The Contractor is responsible to make their own interpretation of the soils within the construction area.
- (a) Pay all costs for onsite review and examination.

E4. DRAWINGS, PLANS, SPECIFICATIONS AND CONSTRUCTION DETAILS

- E4.1 The design documents are prepared solely for the use by the party with whom the design professional has entered into a contract and there are no representations of any kind made by the design professional to any party with whom the design professional has not entered into a contract with.
- E4.2 Include in design anything omitted from plans or drawings and specifications which is necessary to complete the work as described.
- E4.3 Provide additional details and working plans or drawings as required for proper execution of work.
- E4.4 Information if shown on the plans or provided in the specifications related to past works in the area is based on record plans or drawings and specifications, which have been, in part, prepared by Others. While this information is believed to be reliable, the Contract Administrator cannot assure its accuracy or for any errors or omissions which may have been incorporated as a result. The Contractor is hereby advised to obtain independent verification of accuracy of all record information provided before applying it for any purpose.

E5. SHOP DRAWINGS/ RECORD DRAWINGS

- E5.1 Shop Drawings will be reviewed by the Contract Administrator for general conformance to the City's requirements and the design intent only.
- E5.2 Shop Drawings are to be reviewed by the Contractor's responsible design personnel for the design prior to submission to the Contract Administrator.
- (a) See Specification Section 01340
- E5.3 In addition to Shop Drawings required elsewhere in this specification the Contractor shall provide the following:
- (a) General layout plan.
 - (i) Name and address of the proposed facility.
 - (ii) Scale, north point

- (iii) Date, address, name, professional seal and signature of the design engineer or architect.
- (b) A plot plan of the property to be used, the arrangement and location of proposed structures, and the location of proposed spray ground.
- (c) Detailed plans. All detailed plans shall be drawn to a suitable scale and include the following information:
 - (i) Complete construction details, including dimensions, elevations and appropriate cross-sections.
 - (ii) Schematic diagrams and plan and elevation views of the spray pad water treatment and recirculation system.
 - (iii) Size and location of all piping, including elevations.
- (d) Specifications. Complete, detailed specifications for the construction of the spray ground/spray pad, bathhouse, recirculation system, filtration facilities, disinfection equipment and all other appurtenances shown on detailed plans shall be submitted.

E5.4 There shall be no separate measurement or payment for Shop Drawings.

E5.5 There shall be no separate measurement or payment for Record Drawings but they shall be considered a part of the Commissioning Process.

E6. HAZARDOUS MATERIALS

E6.1 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.

E7. EXISTING SERVICES AND UTILITIES

E7.1 Although the Plans may show the location of existing surface and underground works and services, the City and the Contract Administrator does not assume responsibility for discrepancies between the Plans and the actual locations of the works and services or the completeness of the drawings. The Contractor shall make all requests directly to each utility for the location of their existing works prior to the start of construction in the area

E7.2 Prior to the commencement of construction, the Contractor shall inspect the site and examine all available records and contact all relevant utilities as necessary to determine the location of all existing surface and underground works. Locations of underground structures if shown are based on the best information available. No guarantee is given that all existing locations are exact.

E7.3 The Contractor shall be responsible for and take all necessary precautions to preserve and protect all public utilities (i.e. telephone lines and cables, hydro lines and cables, gas lines, sewer mains and services, water mains and services, etc.) existing drains and surface drains or parts thereof which may be affected by his/her operations.

E7.4 The Contractor shall make all requests directly to each utility for the location of their existing works prior to the start of construction in the area.

E7.5 The Contractor shall indemnify and save harmless the City and the Contract Administrator or his/her Sub-Consultants against damages for consequential loss and against any claim made against the City or the Contract Administrator of any such main, line, conduit or other such structure or utility for any loss or damage in respect of third party claims or which may be suffered by any such City because of damage to any such main, line, conduit, or other such structure or utility, in any way caused by the operations of the Contractor in the performance of this Contract.

E8. CONTRACTORS USE OF THE SITE AND WORK HOURS

- E8.1 The Contractor shall co-operate with the City so as to cause the least inconvenience throughout the area at all times.
- (a) The existing wading pool will not be operational during the spray pad construction period.
 - (b) The City anticipates that construction of hockey rinks will take place, immediately to the east of this site, concurrent with the construction of this project.
- E8.2 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.
- E8.3 Do not unreasonably encumber site with materials or equipment.
- E8.4 Do not load or permit to be loaded any part of the work with a weight, load or force that will endanger its safety.
- E8.5 Move stored products or equipment which interfere with operations of City.
- E8.6 Obtain and pay for use of additional storage or work areas needed for operations.
- E8.7 Obtain, pay for, and maintain on Site sanitary facilities from startup to Total Performance.
- E8.8 Maintain roads and access in good condition for efficient execution of work.
- E8.9 Maintain the project site during construction.
- E8.10 Be responsible for damage due to weather, vandalism, etc.
- E8.11 Complete works in a manner that shall result in good surface drainage during periods of precipitation.
- E8.12 Maintain project free of accumulated waste, surplus excavated materials and rubbish.
- E8.13 Haul any waste materials including excavated materials from the site and dispose of in a manner acceptable to the Contract Administrator.
- E8.14 Assume full responsibility for the protection and safekeeping of products under the contract, stored on the site.

E9. DAMAGE TO EXISTING STRUCTURES, TREES AND PROPERTY

- E9.1 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 or near to the Site of the Work. For all damage incurred in the performance of the Work (either directly or indirectly), the Contractor shall either replace or 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 and/or his/her Subconsultants from all claims made directly or indirectly against it in respect to any such damage.
- E9.2 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.
- E9.3 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.

E10. SETTING OUT OF THE WORK

- E10.1 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.
- E10.2 The Contractor shall employ competent person(s) to lay out work.
- E10.3 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).
- E10.4 Supply Contract Administrator all Survey data utilized upon request of Contract Administrator.
- E10.5 Rectify all errors in position, levels, alignment or dimensions at no cost to the City.
- E10.6 Refer to Section 01050 with regard to further survey requirements.
- E10.7 No separate payment will be made for setting out of the work. It shall be considered as incidental to the work being laid out.

E11. PERMITS, NOTICES, LICENCES, CERTIFICATES, LAWS AND RULES

- E11.1 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.
- E11.2 The Contractor shall comply with all laws, ordinances, rules and regulations that would relate to the Work.
- E11.3 All notices, consents, approvals, statements, authorizations, documents or other communications to the City shall be submitted to the Contract Administrator.
- E11.4 All Work shall be performed in compliance with the Manitoba Workplace Health and Safety Act.
- E11.5 All Work shall be performed in compliance with the Manitoba Workplace Health and Safety Fall Protection guidelines.
- E11.6 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.

E12. CODES AND STANDARDS

- E12.1 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. In any case of conflict or discrepancy the more stringent requirements shall apply.
- E12.2 Obtain permits and complete work to meet or exceed the requirements of standards, codes and other documents referred to in this specification.
- E12.3 Where the specifications contained herein are more stringent than the applicable code or standard utilize the most stringent.
- E12.4 Equipment and materials to carry CSA, ULC or cUL approval and conform with applicable standards. There will be no exceptions or alternatives.

E12.5 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.

E13. PEDESTRIAN SAFETY AND TRAFFIC MANAGEMENT

E13.1 Further to CW 1130, the Contractor shall take such measures as are necessary to ensure safe and convenient pedestrian ingress and egress is maintained to private properties while he/she is Working near them. Any damage caused by the negligence of the Contractor or his/her SubContractors to the adjacent Works or properties, shall be promptly repaired by him at his/her own expense, to the satisfaction of the Contract Administrator.

E13.2 The Contractor shall, during the construction of this project, maintain safe access to the adjacent facilities at all times.

E13.3 The Contractor shall isolate the work Site with temporary fencing. These shall be erected and maintained as required for the duration of the construction period.

E13.4 Orange safety fencing will not be accepted as sufficient to isolate the site.

E13.5 Ambulance/ Emergency vehicle access must be maintained at all times.

E13.6 Site enclosures shall be considered incidental to the Contract Work.

E14. PROTECTION OF THE SURVEY INFRASTRUCTURE

E14.1 Notwithstanding clause 4 "Protection of Survey Bars" of the Standard Provisions; Current legislation, The Surveys Act, places the onus on those undertaking construction to protect the Survey Infrastructure from damage as a result of their activity.

E14.2 Further to C:6.26 (g), at least seventy-two (72) hours prior to the commencement of the On-Site Work the Contractor shall contact the City of Winnipeg, Geomatics Services Branch at 204-918-1360 (8:00 am to 4:00 pm Monday to Friday excluding holidays) to obtain underground clearance. Geomatics Services will locate and mark all known outline survey monuments and geodetic control monuments and confirm the physical condition of those monuments upon completion of construction, at no cost to the Contractor.

E14.3 Where a survey post, bar or control monument lies in the line of the proposed Work and must be disturbed, the Contractor shall provide the Contract Administrator with forty-eight (48) hours notice to permit referencing for future replacement, at no cost to the Contractor. Failure to provide the specified notice shall result in the Contractor paying for all costs associated with replacing or relocating the disturbed outline survey monuments and geodetic control monuments.

E14.4 Survey monuments and geodetic control monuments at or adjacent to the Site, not in the line of the proposed construction that are damaged or disturbed by the Contractor shall be replaced or relocated by the City or its agent and all associated costs shall be paid for by the Contractor. An approximate estimate of the costs involved to restore a legal survey monument is \$1,000 per bar and \$3,000 per control monument. Contractors must ensure their landscaping and other subcontractors are aware of this clearance procedure and the potential restoration costs.

E14.5 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.

E15. TREE PROTECTION

E15.1 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.

- E15.2 The Contractor shall not stockpile materials and soil or park vehicles and equipment within 2 metres of trees.
- E15.3 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.
- E15.4 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.
- E15.5 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.
- E15.6 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.
- E15.7 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.
- E15.8 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.
- E15.9 Tree protection shall be paid for at the rate identified for tree protection Form B:Prices.

E16. MATERIALS, APPLIANCES AND PRODUCTS

- E16.1 Unless otherwise stipulated elsewhere in the Contract Documents, the Contractor shall provide and pay for, until substantial performance and acceptance of the works, all materials, labour, products, tools, construction equipment and machinery, hoisting facilities, scaffolding, hoarding, water, heat, light, power, transportation and other facilities and services necessary for the performance of the Work in accordance with the Contract.
- E16.2 All materials and equipment shall be new (in current production and not discontinued) and shall be applied, installed, connected, erected, used, cleaned and conditioned in accordance with the instructions of the applicable manufacturer, fabricator, supplier or distributor, except as otherwise provided in the Contract Documents.
- E16.3 All materials to be incorporated in the Work, whether supplied by the City or Contractor shall be stored under suitable conditions to prevent damage, deterioration, contamination, etc. No materials to be incorporated in the Work shall be temporarily used or installed as a facility for construction purposes except with the express approval of the Contract Administrator.

E17. EXISTING BUILDING

- E17.1 Complete an inspection report of the existing building at the start of mechanical and electrical works. Inspection to include any building visual defects, cleanliness and other items that may be affected by mechanical and electrical works.
- E17.2 Be responsible for any damage to existing building that is not noted on initial inspection report.

E18. TEMPORARY POWER

E18.1 The City will allow the Contractor to use temporary electrical power from the existing building.

E19. LOCATION OF EQUIPMENT AND FIXTURES

E19.1 Locate equipment, fixtures and distribution systems to provide minimum interference and maximum usable space and in accordance with manufacturer's recommendations for safety, access and maintenance.

E19.2 Submit field plans or drawings to indicate relative position of various services and equipment when required by Contract Administrator.

E19.3 Follow manufacturer's literature for roughing-in and hook up of equipment, fixtures and appliances.

E20. CUTTING, FITTING AND PATCHING

E20.1 Execute cutting, fitting and patching required to make work fit properly together (including excavation and backfill).

E20.2 Where new work connects with existing and where existing work is altered, cut, patch and match to existing work.

E20.3 Make cuts with clean, true, smooth edges. Make patches inconspicuous in final assembly.

E20.4 Fit work airtight to pipes, sleeves, ducts and conduits.

E21. MECHANICAL WORK

E21.1 Do work in accordance with rules and regulations of authorities having jurisdiction. Post warning signs on electrical lines and equipment which must remain energized to serve other areas during period of work.

E21.2 Employ qualified tradesman for all work,

E21.3 See Specification Sections:

(a) 02716 Holding Tank, Screen, Diverter and Related Underground Works

(b) 15200 Water Treatment and Control Systems

E21.4 All connections to existing services necessary to provide a complete working project shall be included. This includes but is not limited to water, and sewer.

E21.5 Payment shall be as per Form B: Prices:

(a) Work related to connections to existing systems and City infrastructure shall be paid for under item 'Connections' ; and shall be deemed to include payment in full for all connections.

(b) Work related to all other Mechanical item shall be paid for under item 'Mechanical/Plumbing' ; and shall be deemed to include payment in full for all Mechanical work.

E22. ELECTRICAL WORK

E22.1 Do work in accordance with rules and regulations of authorities having jurisdiction. Post warning signs on electrical lines and equipment which must remain energized to serve other areas during period of work.

E22.2 The Contractor shall employ qualified tradesman for all work.

- E22.3 Contractor is responsible for coordinating the requirements of specific controls and other items with the scope of electrical work shown on the drawings. Contractor shall include all electrical items shown as well as any electrical items incidental sufficient to provide a working spray pad.
- E22.4 See Specification Sections:
- (a) 260501 Common Work Results – Electrical
 - (b) 260528 Grounding – Secondary
 - (c) 260544 Installation of Cables in Trenches and Ducts
 - (d) 262417 Panelboards Breaker Type
 - (e) 264313 Surge Protector Device
- E22.5 Payment shall be as per Form B: Prices for item 'Electrical'; and shall be deemed to include payment in full for all electrical work.

E23. BUILDING

- E23.1 Design of the building is to have a concrete floor, electrical service mast and be of masonry construction with a metal roof, or approved equal in accordance with B6. Provide floor, wall and roof structural drawings "sealed" by a Manitoba registered Professional Engineer. A minimum building size and potential layout is shown on the plans, alter layout as required to best suit system being proposed. Design the building to have a separate area for chemicals. Maintain angles of building as shown if a larger size is proposed. For pump and treatment skid mounted equipment maintain a minimum of 1 m clearance (service area) to all walls and electrical panels.
- E23.2 Quote in accordance with these plans and specifications. Where alternatives other than what are specified would result in savings or improvements, provide request for approved alternative in accordance with B6
- E23.3 See specification section 04200.
- E23.4 Payment shall be as per Form B: Prices for item 'Masonry Building'; and shall be deemed to include payment in full for the building and all related incidental work.

E24. SITE PREPARATION

- E24.1 This section shall cover the removal of sand, gravel, topsoil and sod, and other items where scheduled for removal. It shall also cover any other demolition and removal necessary to construct the project which may be considered incidental to other items of Work.
- E24.2 The removal of any items shall not occur until after permission to proceed has been received by the Contract Administrator.
- E24.3 Excavated granular material is to be removed from the Site and disposed of in a legally acceptable manner. Should the quality of existing granular material be acceptable and the contamination of the material with clay or soil be minimal and following inspection and approval of the granular material by the Contract Administrator, the granular material may be used in the base layer of the new crusher fines paving.
- E24.4 Grassed areas specified for removal shall have the grass surface and growing medium (soil) removed to the elevation of subsurface layer (clay). The excavated material shall be removed from the Site and disposed of or recycled in an environmentally responsible and legal manner.
- E24.5 Payment shall be as per Form B: Prices for item Site Preparation and shall be deemed to include payment in full for all removal and demolition.

E25. LAND DRAINAGE / SITE GRADING

- E25.1 Land drainage and grading shall form an integral part of this project.
- E25.2 Site works shall not impede existing drainage patterns unless an alternative drainage pattern acceptable to the Contract Administrator and the appropriate authorities is provided.
- E25.3 All hard surfaces to drain
- E25.4 Soft surfaces drain and shall not block drainage patterns.
- E25.5 Grading is incidental to the items of work related to paving and sodding and shall not be separately measured or paid for.

E26. CONCRETE SPRAY BASIN

- E26.1 The Concrete spray basin shall be as sized and laid out as per the Drawings.
- E26.2 Contractor shall coordinate the layout of the fixtures on the spray basin and the details of construction to ensure that:
- (a) Basin shall collect overspray to a minimum of manufacturers specified overspray.
 - (b) Concrete pad, designed to support light truck use in a wet environment.
 - (c) Sloped to drain towards return inlets. Maximum slope to be 1:15.
 - (d) Provide a slip resistant surface suitable for use in this type of installation and acceptable to the City.
 - (e) Provide drain lines as required.
 - (i) Minimum of 2 drains with anti-vortex covers (secured), or trench drains shall be provided for each drainage basin as appropriate to the design.
 - (i) Deck drains to be a minimum 50 mm diameter.
 - (ii) Deck drains, access lids, frames, etc. to be hot dipped galvanized.
 - (iii) To be heavy duty non-corroding metal alloy or equally durable fibreglass or plastic construction.
 - (iv) Drain lines are to gravity drain to facilitate winterization.
 - (f) Rebar shall be epoxy coated and sized as per the Drawings
 - (g) Basin shall include an apron which shall drain to the internal drains.
 - (h) Apron shall be sized to collect overspray from the spray devices to a minimum of 50% greater than manufactures stated overspray.
- E26.3 Should the Contractors selection and layout of fixtures, or budgetary considerations during the bid process necessitate adjustments in the layout of the spray pad the Contractor shall submit Shop Drawings for the approval of the Contract Administrator with sufficient detail to:
- (a) Satisfy the permitting authorities.
 - (b) Clearly show that the basin and apron will meet the performance criteria noted in E26.2
 - (c) Show that the proposed change is consistent with the project design intent as evidenced by the Drawings.
- E26.4 Concrete and testing shall be as per CW 3310 R14
- E26.5 Contractor shall prepare three three samples of concrete finishes 60 cm x 60 cm with a light, medium and rough finish. Contract Administer and Community Services / PPD to approve finish samples prior to any concrete being poured.
- E26.6 Payment shall be as per Form B:Prices for item "Concrete Spray Basin". Should the Contractor make adjustments as per item E26.3 their shall be no adjustment in the price.

E27. SITE PAVING

- E27.1 Paved surfaces within the site shall be paved with asphalt or concrete as noted on the Drawings
- E27.2 Concrete paving and testing shall be as per CW 3310 R14
- E27.3 Asphalt paving and testing shall be as per CW 3410 R9
- E27.4 Payment shall be as per Form B: Prices for the item named "Site Paving".

E28. SPRAY FEATURES

- E28.1 Site shall be accessible throughout with no curbs blocking access.
- E28.2 All surfaces shall be straight to drain
- E28.3 In as much as is possible given constraints of budget and space the design shall offer a mix of passive and interactive play
 - (a) For all ages but specific anticipated user groups are 0-4 yrs., 5-8 yrs., 9-12 yrs., and caregivers
 - (b) Include a passive 'kiddie' area somewhat segregated from the more active play area with some preschool type features.
 - (c) Trip, entanglement, strangulation hazards must be avoided.
- E28.4 Consideration should be given to features/ components that the community can identify with and would enhance the community's desire to take ownership.
- E28.5 Water play components:
 - (a) Shall be from one manufacturer to assure compatibility of spare parts for fixtures.
 - (b) Special consideration will be given to products that offer the ability to remove and relocate components to another site.
 - (c) Bollard activator
 - (d) Minimum of moving parts
 - (e) Durable, vandal resistant anchors, finishes, treatments.
 - (f) Ease of maintenance
 - (g) Adjustable controls – provide details of 'operation time', 'run time', etc. to manage water consumption. Controls to be programmable to allow flexibility in changing spray sequence.
 - (h) Bases/Connections should permit the ability to shift components to other bases located in spray pad.
 - (i) Component design is to enhance the safety of the spray pad.
- E28.6 Payment shall be as per Form B:Prices for item "Spray Features".

E29. FENCING

- E29.1 This section shall cover the supply and installation of two new 1.8 m chain link gates in the existing wading pool fence.
 - (a) Contractor shall install gate posts in place of the existing end post and line post.
 - (b) Gate is to be double swing and lockable.
 - (c) Gate Shall have a center post.
- E29.2 All items supplied under this section to conform to CW 3550 R2
- E29.3 Payment shall be as per Form B:Prices for item "Site Fence".

E30. SITE FURNITURE

E30.1 Waste Receptacles

- (a) Shall be City of Winnipeg Metal Slat type Waste Receptacle finish galvanized.

E30.2 Picnic tables

- (a) Shall be as supplied by the Wheelchair Tache Style Metal Frame Picnic Table as supplied by the City of Winnipeg and installed by anchoring to the asphalt paving

E30.3 Benches

- (a) Benches shall be City of Winnipeg Tache 1.8 m composite bench c.w. arms including center armrest.
 - (i) Note some of the benches are to be backless and some are to have a back. Refer to Drawings.

E30.4 Bicycle Rack

- (a) Bike Racks shall be Dumor 125-40 – Galvanized finish, embedment installation or approved equal in accordance with B6

E30.5 Payment shall be as per Form B:Prices for item “Site Furniture”

E31. TREES, SHRUBS, AND GROUND COVERS

E31.1 This section shall cover the supply and installation of trees, shrubs, ground covers and other plants.

E31.2 Trees shall be of the size and type specified in the proposal but in no case shall they be less than 65 mm ø. Trees which fail to meet this specification will be rejected.

E31.3 The Contract Administrator reserves the right to inspect trees at their original source and the give direction as to root and branch pruning requirements.

E31.4 Plant material shall be of quality and sizing consistent with all sections of “Canadian Guide for Nursery Stock” latest edition as published by the Canadian Nursery Trades Association. Plants are to be measured when in their natural position. Height and spread dimensions refer to the main body of the plant and not to the distance from branch tip to branch tip. Measurement of calliper is to be at a height of 15 cm above the base of the tree as measured in the nursery. All other measurements are to be as per Canadian Guide for Nursery Stock.

E31.5 Trees shall be of number one grade having only sturdy stems that are reasonably straight for type, a well balanced crown and a single dominant leader. Trees shall be well branched, true to type, and structurally sound. Contract Administrator reserves the right to reject any trees that do not meet this criteria or show signs of disease, mechanical damage, insect or rodent damage, sunscald, frost cracks. All parts of the tree shall be moist and show live, green cambium beneath the surface of the bark.

E31.6 Plants from native stands, woodlots, orchards or abandon nurseries shall be deem ‘collected’. The use of collected plants will not be permitted.

E31.7 Nomenclature for plants specified shall conform to the International Code of Nomenclature for Cultivated Plants and shall be in accordance with the approved scientific names given in the latest edition of Standardized Plant Names. Names not found within the Standardized Plant Names shall be understood to be in accordance with locally accepted practice. Where there is doubt or ambiguity the Bidder/Contractor shall notify the Contract Administrator and request clarification. The clarification of the Contract Administrator shall be considered final.

E31.8 Topsoil Planting/Shrub Bed/Backfill mix shall be screened garden soil with a mixture of two parks black loam topsoil, one part sand and one part peat moss.

- E31.9 Shrub beds shall be prepared with a minimum depth of 30 cm of Shrub Bed mix and 10 cm depth of mulch.
- E31.10 Tree stakes shall be heavy duty T rail iron stakes 37 mm x 37mm by 2.4 m primed with one coat of black zinc rich plant paint to CGSB 1GP-181B. Section of stake above ground shall be painted with one coat of black enamel paint.
- E31.11 Planting shall be consistent with SCD-517 Street Tree Planting found on Drawing L3.
- E31.12 Protection of stock
- E31.13 All nursery stock shall be well protected from damage from the time of digging until the time of planting on Site. Supplier and Installer are to ensure that the root ball is protected from drying out, and that all roots have been cleanly cut.
- E31.14 Transport of nursery stock shall be done in a manner so that trees do not suffer damage during transport. Branches shall be tied to reduce the risk of mechanical damage. Equipment used to handle nursery stock shall be padded. Nursery stock shall be maintained in a moist condition from the time of arrival on Site until the time of planting.
- E31.15 All trees installed as a part of this Contract shall be guaranteed for a period of two years from the recognized completion date. Any plants found in poor condition or dead during this period shall be replaced with stock meeting the original specification and using methods/techniques consistent with the original specification, without cost to the City. During the growing season this replacement shall occur within two weeks of the Contractor being notified of the condition of the plants. In the event that an acceptable replacement tree is not available at the time a replacement is called for the Contractor shall remove the dead plant from the Site within the two-week period and restore the planting hole. The replacement tree shall be installed at the time it becomes available. Excepted is material or items damaged as a result of accidental causes or vandalism, which will not be subject to warranty.
- E31.16 Contract Administrator reserves the right to extend the Contractor's warranty obligations for an additional one year period if, at the end of the initial warranty period leaf development and growth are not sufficient to ensure future survival.
- E31.17 Plants shall be planted in locations determined on Site by the Contract Administrator.
- E31.18 Replacement plant material installed under the terms of the warranty shall be maintained for a period of two years from the date that the replacement plant is installed. At the end of the maintenance period the Contractor is to remove any stakes, guy wires from the Site.
- E31.19 Payment shall be as per Form B: Prices for item "Trees, Shrubs, and Groundcovers".

E32. LANDSCAPE MAINTENANCE

- E32.1 This section shall cover the maintenance for all sod, shrub beds, and trees and shrubs supplied and installed or transplanted during the course of this Contract.
- E32.2 Sod Maintenance shall be as per CW 3510.
- E32.3 The Contractor shall be responsible for maintaining the plant material from installation for a period of two years from the date of installation or from the date of total performance which ever is later. It is expected that the plants shall be actively maintained from May 1 to October 31st of each year.
- E32.4 The replacement of any deciduous or coniferous plant material shall initiate the start of an additional 2 year maintenance on the replaced plant.
- E32.5 Active maintenance is to include;
- (a) Watering

- (b) Weeding control (Planting locations only)
 - (c) Pest and Disease control
 - (d) Pruning
 - (e) Tree Support and tie maintenance and adjustment
 - (f) Winter protection
- E32.6 Water shall be applied as required to maintain optimum conditions. During dry weather the Contractor should expect to water on a weekly basis. Each tree is to be thoroughly watered when it is watered (40 litres per 25 mm of calliper). Contractor is to avoid over watering by reducing the frequency during wet weather.
- E32.7 Contractor shall maintain tree pits and shrub 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.
- E32.8 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.
- E32.9 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 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.
- E32.10 Tree support and stakes are to be inspected at each weeding/watering to ensure that they are properly adjusted.
- E32.11 At the end of each growing season Contractor is to ensure that tree is properly fitted with rodent protection as per the planting detail.
- E32.12 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
- E32.13 Maintenance of the sodded areas shall be deemed a part of Topsoil, Sod and Shrub Bed preparation and paid for as per CW 3510.
- E32.14 Maintenance of the installed plants shall be paid in the amount specified for Landscape Maintenance on Form B: Prices prorated to cover that portion of the maintenance actually completed and paid for at the end of each growing season.
- E33. SITE RESTORATION**
- E33.1 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.

E34. COMMISSIONING

E34.1 See Specification Sections:

- (a) 01700 Project Closeout
- (b) 01720 Project Record
- (c) 01820 Demonstration and Training

E34.2 Payment shall be as per Form B:Prices at the price for item "Commissioning."