



THE CITY OF WINNIPEG

BID OPPORTUNITY

BID OPPORTUNITY NO. 169-2013

**STURGEON HEIGHTS COMMUNITY CENTRE SITE DEVELOPMENT PROJECT –
210 RITA STREET**

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PART B - BIDDING PROCEDURES

B1. CONTRACT TITLE

- B1.1 STURGEON HEIGHTS COMMUNITY CENTRE SITE DEVELOPMENT PROJECT – 210 RITA STREET

B2. SUBMISSION DEADLINE

- B2.1 The Submission Deadline is 4:00 p.m. Winnipeg time, April 26, 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 Bidder may view the Site without making an appointment.

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 B14.

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 B14.1(a).

B7. BID COMPONENTS

- B7.1 The Bid shall consist of the following components:
- (a) Form A: Bid;
 - (b) Form B: Prices;
- B7.2 Further to B7.1, the Bidder should include the written correspondence from the Contract Administrator approving a substitute in accordance with B6.
- B7.3 All components of the Bid shall be fully completed or provided, and submitted by the Bidder no later than the Submission Deadline, with all required entries made clearly and completely, to constitute a responsive Bid.
- B7.4 The Bid Submission may be submitted by mail, courier or personal delivery, or by facsimile transmission.
- B7.5 If the Bid Submission is submitted by mail, courier or personal delivery, it shall be enclosed and sealed in an envelope clearly marked with the Bid Opportunity number and the Bidder's name and address, and shall be submitted to:
- The City of Winnipeg
Corporate Finance Department
Materials Management Division
185 King Street, Main Floor
Winnipeg, MB R3B 1J1
- B7.5.1 Samples or other components of the Bid Submission which cannot reasonably be enclosed in the envelope may be packaged separately, but shall be clearly marked with the Bid Opportunity number, the Bidder's name and address, and an indication that the contents are part of the Bidder's Bid Submission.
- B7.6 Bidders are advised not to include any information/literature except as requested in accordance with B7.1.
- B7.7 Bidders are advised that inclusion of terms and conditions inconsistent with the Bid Opportunity document, including the General Conditions, will be evaluated in accordance with B14.1(a).
- B7.8 If the Bid Submission is submitted by facsimile transmission, it shall be submitted to 204 949-1178.
- B7.8.1 The Bidder is advised that the City cannot take responsibility for the availability of the facsimile machine at any time.
- B7.8.2 Bids submitted by internet electronic mail (e-mail) will not be accepted.

B8. BID

- B8.1 The Bidder shall complete Form A: Bid, making all required entries.
- B8.2 Paragraph 2 of Form A: Bid shall be completed in accordance with the following requirements:
- (a) if the Bidder is a sole proprietor carrying on business in his/her own name, his/her name shall be inserted;
 - (b) if the Bidder is a partnership, the full name of the partnership shall be inserted;
 - (c) if the Bidder is a corporation, the full name of the corporation shall be inserted;
 - (d) if the Bidder is carrying on business under a name other than his/her own, the business name and the name of every partner or corporation who is the owner of such business name shall be inserted.
- B8.2.1 If a 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 owner of the business name, or by the registered owner's authorized officials if the owner is a partnership or a corporation.
- B8.4.1 The name and official capacity of all individuals signing Form A: Bid should be printed below such signatures.
- B8.4.2 All signatures shall be original.
- B8.5 If a Bid is submitted jointly by two or more persons, the word "Bidder" shall mean each and all such persons, and the undertakings, covenants and obligations of such joint Bidders in the Bid and the Contract, when awarded, shall be both joint and several.

B9. PRICES

- B9.1 The Bidder shall state a price in Canadian funds for each item of the Work identified on Form B: Prices.
- B9.2 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 Construction Safety Association of Manitoba or by the Manitoba Heavy Construction Association's WORKSAFELY™ COR™ Program; or
- (b) a report or letter to that effect from an independent reviewer acceptable to the City. (A list of acceptable reviewers and the review template are available on the Information Connection page at The City of Winnipeg, Corporate Finance, Materials Management Division website at <http://www.winnipeg.ca/matmgt/> .

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. OPENING OF BIDS AND RELEASE OF INFORMATION

B11.1 Bids will not be opened publicly.

B11.2 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>

B11.3 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/>

B11.4 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.

B12. IRREVOCABLE BID

B12.1 The Bid(s) submitted by the Bidder shall be irrevocable for the time period specified in Paragraph 9 of Form A: Bid.

B12.2 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.

B13. WITHDRAWAL OF BIDS

B13.1 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.

- B13.1.1 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.
- B13.1.2 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.
- B13.1.3 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 B13.1.3(b), declare the Bid withdrawn.
- B13.2 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 B12.2 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.

B14. EVALUATION OF BIDS

- B14.1 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;
 - (d) economic analysis of any approved alternative pursuant to B6.
- B14.2 Further to B14.1(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.
- B14.3 Further to B14.1(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.
- B14.4 Further to B14.1(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.
- B14.4.1 Further to B14.1(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.

B15. AWARD OF CONTRACT

- B15.1 The City will give notice of the award of the Contract or will give notice that no award will be made.
- B15.2 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.
- B15.2.1 Without limiting the generality of B15.2, 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.

B15.3 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 B14.

B15.3.1 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.

B15.4 Notwithstanding C4, the City will issue a Purchase Order to the successful Bidder in lieu of the execution of a Contract.

B15.5 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 two (2) outdoor hockey rinks, rink light standards, concrete piles, land drainage, landscaping and site restoration.

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

- (a) Demolition/pavement removals and site preparation.
- (b) Land drainage sewer.
- (c) Earth and base Works.
- (d) Landscaping and site restoration.
- (e) Construction of two (2) outdoor hockey rinks, complete with all components.
- (f) Supply and install all electrical components including all related Work.
- (g) Topsoil and sodding.

D3. CONTRACT ADMINISTRATOR

D3.1 The Contract Administrator is:

Scott Harnish
KGS Group Consulting Engineers
Telephone No. 204 896-1209

D3.2 At the pre-construction meeting, the Contract Administrator 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. OWNERSHIP OF INFORMATION, CONFIDENTIALITY AND NON DISCLOSURE

D5.1 The Contract, all deliverables produced or developed, and information provided to or acquired by the Contractor are the property of the City and shall not be appropriated for the Contractors own use, or for the use of any third party.

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

D5.3 The following shall be confidential and shall not be disclosed by the Contractor to the media or any member of the public without the prior written authorization of the Contract Administrator;

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

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

D6. NOTICES

D6.1 Except as provided for in C23.2.2, all notices, requests, nominations, proposals, consents, approvals, statements, authorizations, documents or other communications to the Contractor shall be sent to the address or facsimile number identified by the Contractor in Paragraph 2 of Form A: Bid.

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

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

The City of Winnipeg
Chief Financial Officer

Facsimile No.: 204 949-1174

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

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

Facsimile No.: 204 947-9155

SUBMISSIONS

D7. AUTHORITY TO CARRY ON BUSINESS

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

D8. SAFE WORK PLAN

D8.1 The Contractor shall provide the Contract Administrator with a Safe Work Plan at least five (5) Business Days prior to the commencement of any Work on the Site but in no event later than the date specified in C4.1 for the return of the executed Contract.

D8.2 The Safe Work Plan should be prepared and submitted in the format shown in the City's template which is available on the Information Connection page at The City of Winnipeg, Corporate Finance, Materials Management Division website at <http://www.winnipeg.ca/matmgt/Safety/default.stm>

D9. INSURANCE

D9.1 The Contractor shall provide and maintain the following insurance coverage:

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

D9.2 Deductibles shall be borne by the Contractor.

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

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

D10. PERFORMANCE SECURITY

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

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

D10.1.1 Where the performance security is in the form of a certified cheque or draft, it will be deposited by the City. The City will not pay any interest on certified cheques or drafts furnished as performance security.

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

D11. SUBCONTRACTOR LIST

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

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 D7;
 - (ii) evidence of the workers compensation coverage specified in C6.15;
 - (iii) the Safe Work Plan specified in D8;
 - (iv) evidence of the insurance specified in D9;
 - (v) the performance security specified in D10; and
 - (vi) the Subcontractor list specified in D11.
 - (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.

D13. SUBSTANTIAL PERFORMANCE

- D13.1 The Contractor shall achieve Substantial Performance within ninety (90) consecutive Working Days of the commencement of the Work as specified in D12.
- 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 within one hundred (100) consecutive Working Days of the commencement of the Work as specified in D12.
- 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 Total Performance in accordance with the Contract by the day fixed herein for Total Performance, the Contractor shall pay the City two hundred and fifty

dollars (\$250) per Working Day for each and every Working Day following the day fixed herein for 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 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.

CONTROL OF WORK

D16. JOB MEETINGS

- D16.1 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.
- D16.2 The Contract Administrator reserves the right to cancel any job meeting or call additional job meetings whenever he/she deems it necessary.

D17. PRIME CONTRACTOR – THE WORKPLACE SAFETY AND HEALTH ACT (MANITOBA)

- D17.1 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).

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

- D18.1 Further to B10.4, the Contractor/Subcontractor must, throughout the term of the Contract, have a Workplace Safety and Health Program meeting the requirements of The Workplace Safety and Health Act (Manitoba). At any time during the term of the Contract, the City may, at its sole discretion and acting reasonably, require updated proof of compliance, as set out in B10.4.

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:
- the City's purchase order number;
 - date of delivery;
 - delivery address;
 - 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 Warranty is as stated in C13.

D21.1 Notwithstanding C13.2, the warranty period shall begin on the date of Total Performance and shall expire two (2) years thereafter unless extended pursuant to C13.2.1 or C13.2.2, in which case it shall expire when provided for thereunder.

D21.2 Notwithstanding C13.2 or D21.1, 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) 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.

FORM H1: PERFORMANCE BOND
(See D10)

KNOW ALL MEN BY THESE PRESENTS THAT

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

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

_____ dollars (\$_____)

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

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

BID OPPORTUNITY NO. 169-2013

STURGEON HEIGHTS COMMUNITY CENTRE SITE DEVELOPMENT PROJECT – 210 RITA STREET

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

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

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

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

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

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

_____ day of _____, 20____ .

SIGNED AND SEALED
in the presence of:

(Witness as to Principal if no seal)

(Name of Principal)

Per: _____ (Seal)

Per: _____

(Name of Surety)

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

**FORM H2: IRREVOCABLE STANDBY LETTER OF CREDIT
(PERFORMANCE SECURITY)**
(See D10)

(Date)

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

RE: PERFORMANCE SECURITY - BID OPPORTUNITY NO. 169-2013

STURGEON HEIGHTS COMMUNITY CENTRE SITE DEVELOPMENT PROJECT – 210 RITA
STREET

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

(Name of Contractor)

(Address of Contractor)

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

_____ Canadian dollars.

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

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

Partial drawings are permitted.

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

(Address)

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

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

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

(Date)

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

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

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

(Name of bank or financial institution)

Per: _____
(Authorized Signing Officer)

Per: _____
(Authorized Signing Officer)

PART E - SPECIFICATIONS

GENERAL

E1. APPLICABLE SPECIFICATIONS AND DRAWINGS

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

<u>Drawing No.</u>	<u>Drawing Name/Title</u>
C01	General Layout
C02	Drainage Plan
S01	Structural – Site Plan and Sections
E01	Electrical – Site Plan and Details
CS-1	Hockey Rink Layout and Specifications
CS-2	Player's Box Plan. Elevation & Details
CS-3	Rink Boards Elevations, Sections & Details
CS-4	Vehicle Gate Elevations & Details
CS-5	Player's Box Section

E2. SOILS INVESTIGATION REPORT

- E2.1 Further to C3.1, the test holes in Appendix A – Geotechnical Investigation, and as shown on the drawings, are provided to supplement the Contractor's evaluation of the site conditions. The information is considered reflective only of the actual test holes and/or excavations examined at the locations indicated and at the time of the investigation. However, variations in soil conditions may exist between test holes and fluctuations in ground water levels can be expected seasonally and may occur as a result of construction activities.

E3. HAZARDOUS MATERIALS

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

E4. TREE PROTECTION

- E4.1 The Contractor shall take the following precautionary steps to prevent damage from construction activities to existing park trees within the limits of the construction area.
- (a) The Contractor shall not stockpile materials and soil or park vehicles and equipment within 2 metres of trees.

- (b) Trees identified to be at risk by the Contract Administrator are to be strapped with 25x100x2400 wood planks, or suitable protection as approved by the Contract Administrator. Said protection is to be maintained until Total Performance.
- (c) Excavation shall be performed in a manner that minimizes damage to the existing root systems. Where possible, excavation shall be carried out such that the edge of the excavation shall be a minimum of 1.5 times the diameter (measured in inches), with the outcome read in feet, from the closest edge of the trunk. Where roots must be cut to facilitate excavation, they shall be pruned neatly at the face of excavation.
- (d) Operation of equipment within the drip line of the trees shall be kept to a minimum required to perform the Work required. Equipment shall not be parked, repaired, refuelled; construction materials shall not be stored, and earth materials shall not be stockpiled within the drip lines of trees. The drip line of a tree shall be considered to be the ground surface directly beneath the tips of its outermost branches. The Contractor shall ensure that the operations do not cause flooding or sediment deposition on areas where trees are located.

- E4.2 Where tree protection fencing is called for the Contractor shall install orange safety fencing with a minimum height of 1.2m using t-rail metal stakes at a maximum spacing of 2 m o.c.. Safety fencing shall be securely fastened to the trail stake.
- E4.3 Contractor shall maintain tree protection fence until such time as construction is sufficiently well progressed as to ensure that vehicular traffic and movement of heavy materials is no longer necessary to complete the remaining works.
- E4.4 All damage to existing trees caused by the Contractor's activities shall be repaired to the requirements and satisfaction of the Contract Administrator and the City Forester or his/her designate.
- E4.5 Tree protection shall be paid for at the rate identified for tree protection in item 1 Tree Protection Fence of Form B: Prices.
- (a) Said payment shall be 50% in the payment certificate following installation with the remaining 50% deemed to be for the maintenance of said protection for the duration of the construction and paid following removal of the protection and Total Performance.

E5. CONSTRUCTION STAGING

- E5.1 In addition to a construction schedule, the Contractor shall provide a proposed construction staging plan to the Contract Administrator for approval, a minimum seven (7) Business Days in advance of commencing Work. The Contractor shall schedule construction activities to meet the following access requirements:
- (a) Ambulance, fire lane and emergency vehicle access must be maintained at all times to the main entrance of the building.
 - (b) No parking or storage of any construction equipment, material or vehicles shall be allowed in the parking lot east of the Community Center Building on Rita Street.
 - (c) Safe pedestrian access to the main entrance of the building must be maintained at all times from the parking and sidewalk areas.
 - (d) Refuse and recycling collection vehicle access must be maintained at all times.
- E5.2 The Contractor shall bear all costs associated with providing and maintaining access and parking for all vehicles and pedestrians during construction, as part of his construction staging plan.

E6. TRAFFIC CONTROL

- E6.1 Further to Clauses 3.6 and 3.7 of CW 1130, latest edition:

- (a) In accordance with the Manual of Temporary Traffic Control, the Contractor ("Agency" in this manual), shall make arrangements with the Traffic Services Section of the City of Winnipeg to place temporary traffic regulatory signs. The Contractor shall bear all costs associated with the placement of temporary traffic control devices by the Traffic Services Section of the City of Winnipeg in connection with the Works undertaken by the Contractor

E7. PEDESTRIAN SAFETY

- E7.1 During the project, the Contractor shall install temporary chain link safety fencing and barricades around open excavations and constructions areas. The Contractor shall be responsible for maintaining the safety fence and barricades in a proper working condition. No separate measurement or payment will be made for supply and installation of the safety fence or barricades.

E8. WATER USED BY CONTRACTOR

- E8.1 Further to clause 3.7 of CW1120, latest edition, the contractor shall pay for all costs associated with obtaining water in accordance with the Waterworks By-Law. Sewer charges will not be assessed for water obtained from a hydrant.

E9. PERMITS

- E9.1 Further to GC:6.12, the Contractor shall give all necessary notices, obtain all necessary permits and pay all fees in order that the Work may be carried out. The Contractor shall submit all plans required by any inspection authority and obtain approval of same before proceeding with the Work, and pay any cost attached to the inspection of such plans.
- E9.2 The Contractor shall comply with all laws, ordinances, rules and regulations that would relate the Work.
- E9.3 All notices, consents, approvals, statements, authorizations, documents or communications to the City shall be submitted to the Contract Administrator.
- E9.4 All Work shall be performed in compliance with the Manitoba Workplace Health and Safety Act.

E10. TEMPORARY UTILITIES

- E10.1 Further to GC:6.12 the Contractor shall make his own arrangements in connection with the temporary use of lighting, power, gas, sewer, water or other utilities, and pay all costs in connection therewith.
- E10.2 All necessary permits, fees and other like expenses as well as the cost of temporary connections to existing facilities shall be arranged and paid for by the Contractor.

E11. LAYOUT OF WORK

- E11.1 The Contractor shall mark to the extent determined necessary, the location, alignment and elevation of the work by means of stakes, buoys or marks. The Contractor will set control lines and benchmarks by means of stakes, buoys or marks and the Contractor shall make the completed works conform to the lines and marks thus indicated. The Contractor shall furnish all other lines and levels required. The Contractor shall be responsible for the careful preservation of all stakes and marks so set whether relating to his own or to other work. The cost of correcting any errors arising out of an incorrect layout, or the disturbance of the layout whether or not due to the neglect of the Contractor or his agent or his employees, shall be borne entirely by the Contractor.
- E11.2 All layouts shall be reviewed and approved by the Contract Administrator prior to construction.

E11.3 Before commencing Work the Contractor shall satisfy himself as to the meaning and correctness of all stakes and marks and no claims shall be entertained by the City of Winnipeg on account of any alleged inaccuracies. If any error or suspected in the plans, specifications or the directions of the Contract Administrator, Work shall be discontinued until the errors are rectified, but no claims shall be made on account of any delay occasioned thereby.

E11.4 The Contractor is responsible to determine the location of all underground utilities and obtain clearances prior to construction. Underground structures as shown on the drawings are based on the best information available but no guarantee is given that all existing utilities are shown or that given locations are exact.

E12. SITE RESTORATION

E12.1 Total Performance of the Work shall not be attained until the Contractor has cleaned up the Site and has removed all plant, tools, equipment, waste, debris and surplus foundation earth to the satisfaction of the Contract Administrator. Unless otherwise specified the Contractor shall restore all areas of the Site beyond the established limit of Work, which have been disturbed by the Contractor's operations to as good as or better than the original condition to the satisfaction of the Contract Administrator. The Contractor shall pay all costs associated with this work.

E12.2 All necessary permits, fees and other like expenses as well as the cost of temporary connections to existing facilities shall be arranged and paid for by the Contractor.

E13. LAND DRAINAGE SEWER

E13.1 This Specification covers supply and installation of land drainage sewer and shall amend and supplement Specifications CW 2030 and CW 2130, latest editions.

E13.2 Bedding and Backfill will be in accordance with Specification CW 2030, latest edition, with Class 2 Bedding and Backfill used in all pavement areas.

E13.3 All new catch basins and manholes shall have a standard frame with standard grated cover.

E13.4 Land drainage sewers will be installed in a trench in accordance with Clause 3.3 of CW 2130, latest edition.

E13.5 The existing 200 LDS at the northeast corner of the Community Center Building shall be abandoned by excavating down to the pipe connection to both the existing catch basin at the upstream end of the pipe and the 450 LDS at the downstream end of the pipe and cutting off the 200 LDS. Plugs shall be installed on the 200 LDS stub sections still connected to the catch basin and the 450 LDS. Additionally, within the catch basin, the 200 LDS opening shall be grouted.

E14. EARTH AND GRANULAR BASE WORKS

E14.1 This Specification shall amend and supplement Specification CW 3110, latest edition, and shall apply to the construction of the granular base for the future warming hut and the emergency access lane.

E14.2 Material

(a) Sub-Base material shall be crushed limestone and have a maximum aggregate size of 50 millimeters.

(b) Base Course shall be crushed limestone in accordance with Clause 2.2 of CW 3110, latest edition.

E14.3 Construction

(a) Excavation shall be in accordance with Section 3 of CW 3110, and shall be understood to include excavation from existing ground elevation after any pavement removal, to

proposed sub-grade elevation. Additional excavation and placement of sub-base material beyond the identified granular base structure shall only be undertaken as directed by the Contract Administrator. All excavation shall be disposed of off-site.

- (b) Sub-grade will be prepared in accordance with Clause 3.3 of CW 3110. Sub-grade shall be free from any fibrous organics, softened or disturbed soil. The prepared sub-grade shall be proof rolled with a heavy sheep's foot roller (min. 25 passes) and reviewed by the Contract Administrator prior to placement of overlying granular fills.
- (c) Sub-base and Base Course shall be placed into the compacted thicknesses as shown on the Drawings, in accordance with CW 3110.
- (d) Geotextile fabric as per the detail on Drawing C02.
- (e) Construction of Drainage Swale will be in accordance with Clause 3.8 of CW 3110, latest edition. Complete required excavation or backfilling to a depth up to 600 millimetres such that the drainage swale, after compaction, is at a uniform depth of 100 millimeters below finished grade prior to topsoil and sodding.

E15. DEMOLITION/REMOVALS

- E15.1 This Specification covers any demolition, removal and temporary relocation work required for new construction and shall amend and supplement Specification 3110, latest edition.
- E15.2 Demolitions/removals shall be as per the Drawings and as directed by the Contract Administrator.
- E15.3 All removal and temporary relocation work shall be done in a careful, workmanlike manner. The use of equipment which might damage portions of the existing items or materials to be relocated will not be permitted. Relocated items shall be placed in areas designated by the Contract Administrator.
- E15.4 All debris from demolitions/removals shall be disposed of off-site by the Contractor.
- E15.5 Pavement Removal
 - E15.5.1 Remove existing concrete and asphalt pavement at locations shown on the Drawings and as directed by the Contract Administrator.
 - E15.5.2 Pavement Removal will be measured on an area basis and paid for at the Contract Unit Price for "Pavement Removal". The amount to be paid for will be the total number of square meters of pavement removed in accordance with this specification and accepted and measured by the Contract Administrator.

E16. LANDSCAPING, TOP SOIL AND SODDING

- E16.1 This Specification covers landscaping, top soil and sodding. This Specification shall amend and supplement Specifications CW 3110, CW 3130, CW 3310, CW 3510 and CW 3540, latest editions.
- E16.2 Topsoil will conform to the materials as outlined in Section 5.2 of CW 3540, latest edition.
- E16.3 Sod will conform to the materials as outlined in CW 3510, latest edition.
- E16.4 Topsoil and Sodding shall be as installed to the limits shown on the Drawings and as directed by the Contract Administrator, in accordance with Specifications CW 3540 and CW 3510.
- E16.5 Where Topsoil and Sodding is to be installed, the ground shall be sub-cut to a sufficient depth below finished grade to allow for the placement of material as per the Topsoil and Sodding details shown on the Drawings. Sub-cutting shall be included in the price for "Topsoil and Sodding".

E16.6 Topsoil and Sodding will be measured on an area basis and paid for at the Contract Unit Price for "Topsoil and Sodding". The amount to be paid for will be the total number of square metres of topsoil and sod supplied and installed in accordance with this specification, accepted and measured by the Contract Administrator.

E17. STRUCTURAL

E17.1 Structural Work shall include the construction of the Hockey Rink Side Boards, Players Boxes, Gates, 6 foot and 10 foot chain link mesh fencing, and the concrete pile and base for all luminaires. The Players Boxes shall not include a roof.

E17.2 All Structural work shall be constructed as per Drawings S01, CS-1, CS-2, CS-3, CS-4, CS-5 and the specifications thereon.

E17.3 Construction for Cast-in-place Concrete Piles for luminaires will be measured on a cubic meter basis and paid for at the Contract Unit Price for "Concrete Piles for Luminaires". The amount to be paid for will be the total number of cubic meters of concrete supplied and installed in accordance with this specification, accepted and measured by the Contract Administrator.

E17.4 Construction for Rink 1 and Rink 2 shall not be measured and shall be paid for on a lump sum basis for each Rink, which shall include Hockey Rink Boards, Players Boxes, Gates (Player, Referee and Vehicle) and associated piling, and 6 foot and 10 foot chain link mesh fencing.

E18. ELECTRICAL

E18.1 Description

E18.1.1 Related Sections:

City of Winnipeg - General Conditions for Construction

City of Winnipeg - Standard Construction Specifications

Part C – General Conditions, Part D – Supplementary Conditions, Part E – Specifications and Section 10 00 00 shall apply to Work in Division 26

E18.1.2 Electrical installation shall be in accordance with the current addition of the Canadian Electrical Code, Part I (C22.1-12).

E18.1.3 Submit to Electrical Inspection Department and supply Authority necessary number of plans and specifications for examination and approval prior to commencement of Work.

E18.1.4 Notify Contract Administrator of changes required by Electrical Inspection Department prior to making changes.

E18.1.5 Pay fees such as for permits, licenses, temporary utility service, or any other requirements to perform the Work herein.

E18.1.6 The Contractor shall examine all plans and specifications. Ensure all required Work to be carried out by other trades to suit electrical (placement of Pole Piles), is shown on the appropriate drawings. Ensure all Work of an electrical nature indicated in other than electrical documents are included. Ensure that all electrical Work noted throughout plans and specifications are included in the bid price. Any discrepancy between drawings shall be identified to the Contract Administrator prior to close of bidding, in as timely a fashion as possible.

E18.1.7 Plans do not indicate all construction details. Any installation involving accurate measurements of the building shall be co-ordinated with construction plans and/or actual on site measurements.

E18.1.8 Plans and specifications are intended to supplement each other, and any information indicated on one and omitted on the other shall be assumed as included on both.

- E18.1.9 In order to provide sufficient detail and clarity, the symbols used for various electrical devices, occupy more space on the plans, than the device actually occupies when installed. The Contractor shall use common sense when placing devices, ensuring that devices are grouped wherever possible. Do not space devices along walls to coincide with the scale location of the electrical device symbol.
- E18.1.10 Where a product catalogue number and specified features, sizes, quality or accessories are not in agreement, the Contractor shall contact the Contract Administrator for clarification of the requirements.
- E18.1.11 Where equipment manufacturer has been identified in the bid, substitutions will be subsequently permitted only where it can be shown that unusual or unforeseen circumstances will cause unacceptable delays in completion of the work. The onus will be on the Contractor to ensure that no delays are caused through the use of substitutes. No substitutions shall be made without review and acceptance by the Contract Administrator.
- E18.1.12 Materials and equipment to be purchased from a Canadian supplier (sales representative) whose sales region includes the project's location.
- E18.1.13 Equipment and materials shall be CSA certified and conform to EEMAC standards. Where there is no alternative to supplying equipment, which is not CSA certified, obtain special approval from Electrical Inspection Department.
- E18.1.14 Submit shop drawings, product data and samples in accordance with the City of Winnipeg Standard Construction Specifications Section CW1110 – General Instructions. Indicate details of construction, dimensions, capacities, weights and electrical performance characteristics of equipment or material. Where applicable, include wiring, single line and schematic diagrams. Include diagrams or plans, showing interconnection with other sections. Provide supplier contact information, including firm and individual name and telephone number, relevant to any equipment to be supplied.
- E18.1.15 Defective products, whenever identified prior to completion of Work, will be rejected, regardless of previous inspections. Inspection does not relieve responsibility, but is a precaution against oversight or error. Remove and replace defective products at own expense and be responsible for delays and expenses caused by rejection.
- E18.1.16 During construction, the Contractor shall make any equipment or wiring accessible for review purposes, as requested by the Contract Administrator.
- E18.1.17 Operate all manual devices, whether mounted on a control panel or separately mounted. With device in "off" position (or stop button depressed), check that no other device can cause that equipment to run. Check all automatic sequences including alternators, safety lock out circuits and interlocks between equipment. Operate all pressure switches, level switches, thermal switches, limit switches and similar devices to prove sequence of complete circuit.
- E18.1.18 When the Contractor is satisfied that the Work is completed, and after making his own inspection of Work to verify completion, the Contractor shall submit a written request to the Contract Administrator requesting a review of Work. Any deficiencies noted by the Contract Administrator during the review of Work, will be listed by the Contract Administrator, and issued to the Contractor. Such deficiencies shall be corrected within three (3) weeks of the issuance of the deficiency list, or by a mutually agreed upon date. Once complete, the Contractor shall submit a written request to the Contract Administrator requesting a final deficiency review. If subsequent site visits are required by the Contract Administrator because the deficiencies listed were not complete, all time and expense costs incurred by the Contract Administrator will be the responsibility of the Contractor.
- E18.1.19 Submit record plans detailing all Work as built. Obtain one set of solid white prints to be used for record Work as actually installed. Record on this set, all changes associated with the Work.
- E18.1.20 Furnish Certificates of Acceptance from authorities having jurisdiction, to Contract Administrator on completion of Work.

- E18.1.21 Furnish manufacturer's certificate or letter confirming that entire installation as it pertains to each system has been installed to manufacturer's instructions.
- E18.1.22 Instruct Contract Administrator and City operating and maintenance personnel in the operation, care, and maintenance of equipment.
- E18.1.23 Submit a written guarantee stating that all materials and workmanship will be free from defects for a period of two (2) years from date of acceptance by the City.
- E18.2 Materials
- E18.2.1 Provide wiring as indicated. Wiring shall be copper, minimum size #12AWG or as noted for power circuits. Provide appropriate watertight connectors for any enclosure or junction box penetrations. References:
Teck90 Cable to CAN/CSA C22.2 No.131
RW90 Cable to CAN/CSA C22.2 No.38
- E18.2.2 Provide conduit as indicated. Minimum size shall be 21mm. Provide expansion fittings for PVC conduits to accommodate earth and structure movements. References:
RGS Conduit to CAN/CSA C22.2 No.45
Rigid PVC Conduit CAN/CSA C22.2 No.211.2
- E18.2.3 Provide molded case breakers as indicated to match existing panel board for brand, model and interrupting capacity.
- E18.2.4 Provide light fixtures and standard octagonal tapered pole as indicated or approved equal. Coordinate bolting pattern of pole base with pole supplier for correct bolt length and spacing.
- E18.2.5 Provide Lighting Control Panel. Enclosure shall be NEMA 12 rated with continuous hinged door, welded seams, 14 gauge steel, pad lockable and 12 gauge inner steel panel. No knockouts allowed all cable entries shall be drilled and finished. Design Basis: Hammond Type 12 Enclosure or approved equal. Terminal blocks shall be voltage rated and sized to accept cable. Design Basis: Weidmiller SAK series or approved equal. Contactors shall be NEMA rated. Selector switch shall be heavy duty, oil resistant. Submit shop drawings for Lighting control panel. Lighting control panel shall be built in a CSA approved panel shop.
- E18.2.6 In trenches, sand bed shall be nominal 6mm screened sand. Backfill shall be suitable for the area. Meet contract specifications for constructed areas, backfill with original material in suitable locations. Restore disturbed surfaces as required.
- E18.2.7 Identification labels shall be Lamacoid 3mm engraving sheet with white face, black core.
Nameplate Sizes
Size 1 10 x 50 mm - 1 line 3 mm high letters
Size 2 12 x 62 mm - 1 line 6 mm high letters
Size 3 12 x 62 mm - 2 lines 3 mm high letters
Size 4 20 x 75 mm - 1 line 8 mm high letters
Size 5 20 x 75 mm - 2 lines 6 mm high letters
Size 6 25 x 100 mm - 1 line 12 mm high letters
Size 7 25 x 100 mm - 2 lines 8 mm high letters
- E18.2.8 In Category 1&2 areas all rod, bolts, nuts, washers, screws and miscellaneous hardware for electrical item support shall be 304/316 stainless steel unless otherwise specified. The standard of acceptance shall be Unistrut or equivalent. In Category 1&2 areas all Unistrut channels, angles, brackets, etc. shall be 304/316 stainless steel. The Contractor may utilize hot-dipped galvanized after fabrication, for supports in dry areas.

- E18.2.9 Metal enclosure surfaces shall be factory finished by application of rust resistant primer inside and outside, and at least two coats of finish enamel.
- E18.2.10 Lugs, terminals, screws used for termination of wiring shall be suitable for either copper or aluminum conductors.
- E18.3 Construction Methods
- E18.3.1 The minimum standard of installation shall be to the latest editions of the Winnipeg Electrical Bylaw, Canadian Electrical Code, National Building Code, Manitoba Building Code, National and Provincial Codes and Bulletins, and specifications herein.
- E18.3.2 Underground systems shall be in accordance with CSA C22.3 No.7-M94 except where noted otherwise.
- E18.3.3 Area classifications shall be as defined by the WEB and the WEB/MEC "Variations to the Diagrams Section of the Code". Areas shall have the greater of the above requirements, or those indicated in the Contract Documents.
- E18.3.4 Maintain wiring phase sequence and colour coding throughout. Colour code to WEB.
- E18.3.5 Manufacturer nameplates and CSA labels shall be visible and legible after installation of equipment.
- E18.3.6 Equipment that is normally mounted at a reachable location in common practice shall be so mounted unless otherwise noted or approved by Contract Administrator.
- E18.3.7 Installation is to be supervised by a journeyman electrician for entire duration of the project.
- E18.3.8 Conceal equipment in finished areas as practicable. Equipment may remain exposed in finished areas where indicated or where approved by Contract Administrator and City. Equipment that shall remain visible in finished areas shall be finished to match or as required for desired appearance. Paint conduit, couplings, fasteners, boxes, etc. prior to installation.
- E18.3.9 Clean and prime exposed non-galvanized hangers, racks and fastenings to prevent rusting.
- E18.3.10 Clean and touch up surfaces of shop-painted equipment scratched or marred during shipment or installation, to match original paint.
- E18.3.11 Identify electrical equipment with nameplates mechanically attached with self-tapping screws. Wording on nameplates to be approved by Contract Administrator prior to manufacture. Allow for average of twenty-five (25) letters per nameplate. Identification to be English. Nameplates for terminal cabinets and junction boxes to indicate system, i.e. "power", "controls", "instrumentation", "lighting", etc. For lighting circuits and small power 120 Volt circuits, list panel and circuit numbers on the name plate. On disconnects, starters and contactors, indicate equipment being controlled and voltage source. On control cabinets indicate system and voltage. On transformers indicate capacity, primary and secondary voltages, and source by panel/circuit number. On receptacles indicate panel and circuit number (i.e. AB-24, for circuit 24 in panel AB). Where voltage is other than 120 Volts, include voltage and phases on label (i.e. g. 600V/3 ϕ). On toggle switches for lighting and small loads indicate panel and circuit number as for receptacles. Indicate the load being switched where it is not immediately obvious (i.e. roof mounted fan). On junction / pull boxes indicate the load, circuit number (if applicable) or tag number, as required. For all components not required to be labeled by division 14, or 15, provide lamacoid labels as above. Identify tag name complete with loop number. Nameplate shall be sized for adequate legibility or according to size table where size is indicated.
- E18.3.12 Identify wiring with permanent indelible identifying markings, either numbered or coloured plastic tapes, on both ends of phase conductors of feeders and branch circuit wiring and in junction/pull boxes. Label all wires securely with circuit number or tag numbers in the control panel, junction boxes, and pull boxes.

- E18.3.13 Install conduit and sleeves prior to pouring of concrete. Where plastic sleeves are used in fire rated walls or floors, remove before conduit installation and firestop wall or floor with approved firestopping. Installation of PVC conduit in the hot air flow from heating units shall be avoided.
- E18.3.14 Buried conduit shall be centered horizontally and vertically in sand bed. Marking tape buried to a depth equal to half the trench depth shall be used to indicate the location of the buried conduit. Provide painted lath stakes or other suitable temporary markers to delineate trench during construction to prevent inadvertent damage to conduit. Coordinate trenching and backfill. Provide dimensioned trench layouts on as-built drawings that reference locations of at least two permanent stable visible structures.
- E18.3.15 Firestopping shall be installed where a conduit, wire, cable, cable tray, recessing opening or other penetration is made in a smoke separation, fire separation, firewall, ceiling or floor. The firestop must be ULC approved, installed as part of a ULC approved system, and meet CAN4-5115-M. The use of concrete, mortar, grout, gyprock etc. is not approved. Firestopping shall not shrink or crack or be made of such materials which cannot be easily disposed of. In addition, it shall not burn, melt or release toxic fumes when exposed to heat. The firestop shall be suitable for the ambient temperature and humidity that it will be normally exposed to. The firestop shall be ULC approved for site conditions (e.g. identical wall construction and conduit/cable/cable tray type). All firestopping shall be water resistant when located in damp or wet areas, in Category 1 or 2 areas, below mechanical pipes, in sprinklered areas, where condensation may occur, or where other sources of dripping, splashing or spraying water may be present. Firestop for single conductor cable penetrations shall have low conductivity after curing to minimize sheath currents. Fire stop shall be installed to manufacturer's recommendations. Firestopping must be of one manufacturer throughout project. Approved manufacturers: Specseal, 3M. E19.3.16 Assist other divisions of this Contract by operating control devices and checking performance of the related electrical systems, as required for commissioning of that division's equipment. E19.3.17 Ensure circuit protective devices such as over current trips, relays and fuses are installed to required values and settings.
- E18.3.16 Megger test circuits, feeders and equipment up to 350 V utilizing a 500 V instrument. Megger test 350-600 V circuits, feeders and equipment with a 1000 V instrument. Provide instruments, meters, equipment and personnel required to conduct tests during and at conclusion of project. Submit test results for Contract Administrator's review.
- E18.3.17 At time of final cleaning (after all construction is complete and floors have been swept), clean lighting reflectors, lenses, and other surfaces that have been exposed to construction and dirt. Clean inside and out, panel boards, splitters, and switchboards, exposed to construction.
- E18.4 Measurement and Payment
- E18.4.1 Electrical work will not be measured but will be paid for at the Contract Unit Price per single lump sum item for "Supply and Install all Electrical Components including all Related Work" in accordance with this Specification and accepted by the Contract Administrator.