



THE CITY OF WINNIPEG

BID OPPORTUNITY

BID OPPORTUNITY NO. 668-2014

ART MCOUAT MEMORIAL PARK – ATHLETIC FIELD RE-DEVELOPMENT

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PART B - BIDDING PROCEDURES

B1. CONTRACT TITLE

B1.1 ART MCOUAT MEMORIAL PARK – ATHLETIC FIELD RE-DEVELOPMENT

B2. SUBMISSION DEADLINE

B2.1 The Submission Deadline is 4:00 p.m. Winnipeg time, August 7, 2014.

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

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

B3. SITE INVESTIGATION

B3.1 Further to C3.1, a Site meeting will be held at 10 a.m. on Aug. 1, 2014 at the Football Clubhouse building located at 910 Maginot Street, to provide Bidders access to the building.

B3.2 The Bidder is advised that the football clubhouse building will be open and the Contractor will be able to determine the nature of mechanical and electrical work required, with respect to providing water service for the football field irrigation system.

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. CONFIDENTIALITY

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

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

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

B6. ADDENDA

B6.1 The Contract Administrator may, at any time prior to the Submission Deadline, issue addenda correcting errors, discrepancies or omissions in the Bid Opportunity, or clarifying the meaning or intent of any provision therein.

B6.2 The Contract Administrator will issue each addendum at least two (2) Business Days prior to the Submission Deadline, or provide at least two (2) Business Days by extending the Submission Deadline.

B6.2.1 Addenda will be available on the Bid Opportunities page at The City of Winnipeg, Corporate Finance, Materials Management Division website at <http://www.winnipeg.ca/matmgt/>

B6.2.2 The Bidder is responsible for ensuring that he/she has received all addenda and is advised to check the Materials Management Division website for addenda regularly and shortly before the Submission Deadline, as may be amended by addendum.

B6.2.3 The Bidder shall acknowledge receipt of each addendum in Paragraph 8 of Form A: Bid. Failure to acknowledge receipt of an addendum may render a Bid non-responsive.

B7. SUBSTITUTES

B7.1 The Work is based on the Plant, Materials and methods specified in the Bid Opportunity.

B7.2 Substitutions shall not be allowed unless application has been made to and prior approval has been granted by the Contract Administrator in writing.

B7.3 Requests for approval of a substitute will not be considered unless received in writing by the Contract Administrator at least five (5) Business Days prior to the Submission Deadline.

B7.4 The Bidder shall ensure that any and all requests for approval of a substitute:

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

B7.5 The Contract Administrator, after assessing the request for approval of a substitute, may in his/her sole discretion grant approval for the use of a substitute as an "approved equal" or as an "approved alternative", or may refuse to grant approval of the substitute.

- B7.6 The Contract Administrator will provide a response in writing, at least two (2) Business Days prior to the Submission Deadline, to the Bidder who requested approval of the substitute.
- B7.6.1 The Contract Administrator will issue an Addendum, disclosing the approved materials, equipment, methods and products to all potential Bidders. The Bidder requesting and obtaining the approval of a substitute shall be responsible for disseminating information regarding the approval to any person or persons he/she wishes to inform.
- B7.7 If the Contract Administrator approves a substitute as an "approved equal", any Bidder may use the approved equal in place of the specified item.
- B7.8 If the Contract Administrator approves a substitute as an "approved alternative", any Bidder bidding that approved alternative may base his/her Total Bid Price upon the specified item but may also indicate an alternative price based upon the approved alternative. Such alternatives will be evaluated in accordance with B15.
- B7.9 No later claim by the Contractor for an addition to the Total Bid Price because of any other changes in the Work necessitated by the use of an approved equal or an approved alternative will be considered.
- B7.10 Notwithstanding B7.2 to B7.9, and in accordance with B8.7, deviations inconsistent with the Bid Opportunity document shall be evaluated in accordance with B15.1(a).

B8. BID COMPONENTS

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

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

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

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

B9. BID

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

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

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

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

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

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

- (a) if the Bidder is a sole proprietor carrying on business in his/her own name, it shall be signed by the Bidder;
- (b) if the Bidder is a partnership, it shall be signed by the partner or partners who have authority to sign for the partnership;
- (c) if the Bidder is a corporation, it shall be signed by its duly authorized officer or officers;
- (d) if the Bidder is carrying on business under a name other than his/her own, it shall be signed by the registered owner of the business name, or by the registered owner's authorized officials if the owner is a partnership or a corporation.

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

B9.4.2 All signatures shall be original.

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

B10. PRICES

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

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

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

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

B11. QUALIFICATION

B11.1 The Bidder shall:

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

B11.2 The Bidder and any proposed Subcontractor (for the portion of the Work proposed to be subcontracted to them) shall:

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

B11.3 The Bidder and/or any proposed Subcontractor (for the portion of the Work proposed to be subcontracted to them) shall:

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

B11.4 Further to B11.3(c), the Bidder shall, within five (5) Business Days of a request by the Contract Administrator, provide proof satisfactory to the Contract Administrator that the Bidder/Subcontractors has a workplace safety and health program meeting the requirements of The Workplace Safety and Health Act (Manitoba), by providing:

- (a) a copy of their valid Manitoba COR certificate and Letter of Good Standing (or Manitoba equivalency) as issued under the Certificate of Recognition (COR) Program administered by the Construction Safety Association of Manitoba or by the Manitoba Heavy Construction Association's WORKSAFELY™ COR™ Program; or
- (b) a copy of their valid Manitoba SECOR™ certificate and Letter of Good Standing (or Manitoba equivalency) as issued under the Small Employer Certificate of Recognition Program (SECOR™) administered by the Construction Safety Association of Manitoba or by the Manitoba Heavy Construction Association's WORKSAFELY™ COR™ Program; or
- (c) a report or letter to that effect from an independent reviewer acceptable to the City. (A list of acceptable reviewers and the review template are available on the Information Connection page at The City of Winnipeg, Corporate Finance, Materials Management Division website at <http://www.winnipeg.ca/matmgt/>).

B11.5 The Bidder shall submit, within three (3) Business Days of a request by the Contract Administrator, proof satisfactory to the Contract Administrator of the qualifications of the Bidder and of any proposed Subcontractor.

B11.6 The Bidder shall provide, on the request of the Contract Administrator, full access to any of the Bidder's equipment and facilities to confirm, to the Contract Administrator's satisfaction, that the Bidder's equipment and facilities are adequate to perform the Work.

B12. OPENING OF BIDS AND RELEASE OF INFORMATION

- B12.1 Bids will not be opened publicly.
- B12.2 Following the submission deadline, the names of the Bidders and their Total Bid Prices (unevaluated, and pending review and verification of conformance with requirements) will be available on the Closed Bid Opportunities (or Public/Posted Opening & Award Results) page at The City of Winnipeg, Corporate Finance, Materials Management Division website at <http://www.winnipeg.ca/matmgt/bidopp.asp>
- B12.3 After award of Contract, the name(s) of the successful Bidder(s) and the Contract amount(s) will be available on the Closed Bid Opportunities (or Public/Posted Opening & Award Results) page at The City of Winnipeg, Corporate Finance, Materials Management Division website at <http://www.winnipeg.ca/matmgt/>
- B12.4 The Bidder is advised that any information contained in any Bid may be released if required by City policy or procedures, by The Freedom of Information and Protection of Privacy Act (Manitoba), by other authorities having jurisdiction, or by law.

B13. IRREVOCABLE BID

- B13.1 The Bid(s) submitted by the Bidder shall be irrevocable for the time period specified in Paragraph 9 of Form A: Bid.
- B13.2 The acceptance by the City of any Bid shall not release the Bids of the next two lowest evaluated responsive Bidders and these Bidders shall be bound by their Bids on such Work for the time period specified in Paragraph 9 of Form A: Bid.

B14. WITHDRAWAL OF BIDS

- B14.1 A Bidder may withdraw his/her Bid without penalty by giving written notice to the Manager of Materials at any time prior to the Submission Deadline.
- B14.1.1 Notwithstanding C23.3, the time and date of receipt of any notice withdrawing a Bid shall be the time and date of receipt as determined by the Manager of Materials.
- B14.1.2 The City will assume that any one of the contact persons named in Paragraph 3 of Form A: Bid or the Bidder's authorized representatives named in Paragraph 10 of Form A: Bid, and only such person, has authority to give notice of withdrawal.
- B14.1.3 If a Bidder gives notice of withdrawal prior to the Submission Deadline, the Manager of Materials will:
- (a) retain the Bid until after the Submission Deadline has elapsed;
 - (b) open the Bid to identify the contact person named in Paragraph 3 of Form A: Bid and the Bidder's authorized representatives named in Paragraph 10 of Form A: Bid; and
 - (c) if the notice has been given by any one of the persons specified in B14.1.3(b), declare the Bid withdrawn.
- B14.2 A Bidder who withdraws his/her Bid after the Submission Deadline but before his/her Bid has been released or has lapsed as provided for in B13.2 shall be liable for such damages as are imposed upon the Bidder by law and subject to such sanctions as the Chief Administrative Officer considers appropriate in the circumstances. The City, in such event, shall be entitled to all rights and remedies available to it at law.

B15. EVALUATION OF BIDS

- B15.1 Award of the Contract shall be based on the following bid evaluation criteria:
- (a) compliance by the Bidder with the requirements of the Bid Opportunity or acceptable deviation there from (pass/fail);

- (b) qualifications of the Bidder and the Subcontractors, if any, pursuant to B11 (pass/fail);
- (c) Total Bid Price;
- (d) economic analysis of any approved alternative pursuant to B7.

B15.2 Further to B15.1(a), the Award Authority may reject a Bid as being non-responsive if the Bid is incomplete, obscure or conditional, or contains additions, deletions, alterations or other irregularities. The Award Authority may reject all or any part of any Bid, or waive technical requirements or minor informalities or irregularities, if the interests of the City so require.

B15.3 Further to B15.1(b), the Award Authority shall reject any Bid submitted by a Bidder who does not demonstrate, in his/her Bid or in other information required to be submitted, that he/she is responsible and qualified.

B15.4 Further to B15.1(c), the Total Bid Price shall be the sum of the quantities multiplied by the unit prices for each item shown on Form B: Prices adjusted, if necessary, as follows:

- (a) if the lowest evaluated responsive Bid submitted by a responsible and qualified Bidder is within the budgetary provision for the Work, no adjustment will be made to the Total Bid Price; or
- (b) if the lowest evaluated responsive Bid submitted by a responsible and qualified Bidder exceeds the budgetary provision for the Work, the Total Bid Prices of all responsive Bids submitted by responsible and qualified Bidders will be adjusted by progressively deducting item(s) 6, 17, 18 and 14 in the order listed, until a Total Bid Price within the budgetary provision is achieved.

B15.4.1 Further to B15.1(a), in the event that a unit price is not provided on Form B: Prices, the City will determine the unit price by dividing the Amount (extended price) by the approximate quantity, for the purposes of evaluation and payment.

B16. AWARD OF CONTRACT

B16.1 The City will give notice of the award of the Contract or will give notice that no award will be made.

B16.2 The City will have no obligation to award a Contract to a Bidder, even though one or all of the Bidders are determined to be responsible and qualified, and the Bids are determined to be responsive.

B16.2.1 Without limiting the generality of B16.2, the City will have no obligation to award a Contract where:

- (a) the prices exceed the available City funds for the Work;
- (b) the prices are materially in excess of the prices received for similar work in the past;
- (c) the prices are materially in excess of the City's cost to perform the Work, or a significant portion thereof, with its own forces;
- (d) only one Bid is received; or
- (e) in the judgment of the Award Authority, the interests of the City would best be served by not awarding a Contract.

B16.3 Where an award of Contract is made by the City, the award shall be made to the responsible and qualified Bidder submitting the lowest evaluated responsive Bid, in accordance with B15.

B16.3.1 Following the award of contract, a Bidder will be provided with information related to the evaluation of his/her Bid upon written request to the Contract Administrator.

B16.4 Notwithstanding C4, the City may issue a Purchase Order to the successful Bidder in lieu of the execution of a Contract.

B16.5 The Contract, as defined in C1.1, in its entirety shall be deemed to be incorporated in and to form a part of the Purchase Order notwithstanding that it is not necessarily attached to or accompany said Purchase Order.

PART C - GENERAL CONDITIONS

C0. GENERAL CONDITIONS

- C0.1 The *General Conditions for Construction* (Revision 2006 12 15) are applicable to the Work of the Contract.
- C0.1.1 The *General Conditions for Construction* are available on the Information Connection page at The City of Winnipeg, Corporate Finance, Materials Management Division website at http://www.winnipeg.ca/matmgt/gen_cond.stm
- 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 the reconstruction of one (1) football field and the new construction of two (2) soccer fields at Art McQuat Memorial Park.

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

- (a) Demolition of an existing asphalt running track
- (b) Rough grading
- (c) Topsoil and sodding
- (d) Irrigation work
- (e) One small area of timber wall construction
- (f) Installation of football goal posts

D3. CONTRACT ADMINISTRATOR

D3.1 The Contract Administrator is Ken Rech Landscape Architects Inc., represented by:

Ken Rech
Landscape Architect
Telephone No. 204 489-6616
Email: kenrech@mymts.net

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

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

D4. CONTRACTOR'S SUPERVISOR

D4.1 At the pre-construction meeting, the Contractor shall identify his/her designated supervisor and any additional personnel representing the Contractor and their respective roles and responsibilities for the Work.

D5. OWNERSHIP OF INFORMATION, CONFIDENTIALITY AND NON DISCLOSURE

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

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

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

- (a) information provided to the Contractor by the City or acquired by the Contractor during the course of the Work;

- (b) the Contract, all deliverables produced or developed; and
- (c) any statement of fact or opinion regarding any aspect of the Contract.

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

D6. NOTICES

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

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

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

The City of Winnipeg
Chief Financial Officer

Facsimile No.: 204 949-1174

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

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

Facsimile No.: 204 947-9155

SUBMISSIONS

D7. AUTHORITY TO CARRY ON BUSINESS

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

D8. SAFE WORK PLAN

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

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

D9. INSURANCE

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

- (a) commercial general liability insurance, in the amount of at least two million dollars (\$2,000,000.00) inclusive, with The City of Winnipeg and Ken Rech Landscape Architects Inc. 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 sixty (60) 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 re-inspected.
- 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 seventy (70) 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 respected.
- 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 or Total Performance in accordance with the Contract by the days fixed herein for same, the Contractor shall pay the City the following amounts per Calendar Day for each and every Calendar Day following the days fixed herein for same during which such failure continues:

- (a) Substantial Performance – five hundred dollars (\$500);
- (b) Total Performance – five hundred dollars (\$500).

D15.2 The amounts specified for liquidated damages in D15.1 are based on a genuine pre-estimate of the City's losses in the event that the Contractor does not achieve Substantial Performance or Total Performance by the days 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) Topsoil and sodding as specified in E15;

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).

D19. THE WORKPLACE SAFETY AND HEALTH ACT (MANITOBA) – QUALIFICATIONS

D19.1 Further to B11.4, the Contractor/Subcontractor must, throughout the term of the Contract, have a Workplace Safety and Health Program meeting the requirements of The Workplace Safety and Health Act (Manitoba). At any time during the term of the Contract, the City may, at its sole discretion and acting reasonably, require updated proof of compliance, as set out in B11.4.

MEASUREMENT AND PAYMENT

D20. INVOICES

D20.1 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

D20.2 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.

D20.3 The City will bear no responsibility for delays in approval of invoices which are improperly submitted.

D20.4 Bids Submissions must be submitted to the address in B8.5.

D21. PAYMENT

D21.1 Further to C12, the City may at its option pay the Contractor by direct deposit to the Contractor's banking institution.

WARRANTY

D22. WARRANTY

D22.1 Warranty is as stated in C13.

FORM H1: PERFORMANCE BOND
(See D10)

KNOW ALL MEN BY THESE PRESENTS THAT

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

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

_____ dollars (\$_____)

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

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

BID OPPORTUNITY NO. 668-2014

ART MCOUAT MEMORIAL PARK – ATHLETIC FIELD RE-DEVELOPMENT

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. 668-2014
ART MCOUAT MEMORIAL PARK – ATHLETIC FIELD RE-DEVELOPMENT

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

(Name of Contractor)

(Address of Contractor)

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

_____ Canadian dollars.

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

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

Partial drawings are permitted.

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

(Address)

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

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

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

(Date)

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

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

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

(Name of bank or financial institution)

Per: _____
(Authorized Signing Officer)

Per: _____
(Authorized Signing Officer)

PART E - SPECIFICATIONS

GENERAL

E1. APPLICABLE SPECIFICATIONS AND DRAWINGS

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

<u>Drawing No.</u>	<u>Drawing Name/Title</u>
L-1	Existing Site and Demolition Plan
L-2	Site Grading Plan
L-3	Grading Details
L-4	Irrigation Plan and Details
L-5	Miscellaneous Details
SCD-105B-R1	Post Bollard

E2. EXISTING SERVICES AND UTILITIES

- E2.1 No responsibility will be assumed by the City for correctness or completeness of the Drawings, when provided, with respect to the existing utilities, pipes or other objects either underground or on the surface; the City shall not be liable for the incorrectness and inadequacy thereof. It shall be the responsibility of the Contractor to determine the location of all such utilities, pipes and other objects and to make good any damage done to them.

E3. ACCESS TO SITE

- E3.1 Access to the Site as required by the Contractor shall be provided and maintained by the Contractor at his own expense and approved by the Contract Administrator.
- E3.2 The Contractor is responsible to correcting all Site damage as a result of their operations, or accessing the Site at no further cost to the City. All repairs must be done to pre-construction conditions.
- E3.3 The Contractor's operations shall be limited to the minimum area necessary for undertaking the Work and he shall be responsible for all damage resulting from his Work on private property.

E4. PERMITS, NOTICES, LICENSES, CERTIFICATES, LAWS AND RULES

- E4.1 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.
- E4.2 The Contract Administrator has applied for the Development Permit from the City of Winnipeg and the City of Winnipeg will pay for the permit fee, but not the damage deposit or lot grading deposit. It will be the Contractor's responsibility to pay for the lot grading and damage deposits

and pick up the permit. The Contractor is made aware the lot grading and damage deposits are refundable subject to no damage occurring to the surrounding City property and the lot grading, complying with the approved site grading drawings.

- E4.3 The Contractor shall comply with all laws, ordinances, rules and regulations that would relate to the Work.
- E4.4 All notices, consents, approvals, statements, authorizations, documents or other communications to the City shall be submitted to the Contract Administrator.
- E4.5 All Work shall be performed in compliance with the Manitoba Workplace Health and Safety Act.
- E4.6 All Work shall be performed in compliance with the Manitoba Workplace Health and Safety Fall Protection guidelines.
- E4.7 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.

E5. DAMAGE TO EXISTING STRUCTURES, TREES AND PROPERTY

- E5.1 All necessary precautions shall be exercised by the Contractor so as not to remove, disturb, or damage any existing trees, shrubs, sod, pavements, streets, roads, boulevards, poles, hydrants, water pipes, gas pipes, electrical wires, cables, conduits, sewers or other existing facilities and equipment at the Site of the Work. For all damage incurred in the performance of the Work (either directly or indirectly), the Contractor shall either replace and repair such damage, whichever may be deemed necessary in the opinion of, and acceptable to City of Winnipeg Contract Administrator, and the cost of which shall be borne entirely by the Contractor. The Contractor shall also indemnify and save harmless the City from all claims made directly or indirectly against it in respect to any such damage.
- E5.2 The Contractor shall take the following precautionary steps to prevent damage from construction activities to existing park trees within the limits of the construction area:
 - (a) The Contractor shall not stockpile materials and soil or park vehicles and equipment within 2 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.
 - (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.
- E5.3 All damage to existing trees caused by the Contractor's activities shall be repaired to the requirements and satisfaction of the Contract Administrator and the City Forester or his/her designate.
- E5.4 No separate measurement or payment will be made for the protection of trees.

E6. PEDESTRIAN SAFETY AND TRAFFIC MANAGEMENT

- E6.1 Further to CW 1130-R1, the Contractor shall take such measures as are necessary to ensure safe and convenient pedestrian ingress and egress is maintained to private properties while he is Working near them. Any damage caused by the negligence of the Contractor or his Sub-Contractors to the adjacent Works or properties, shall be promptly repaired by him at his own expense, to the satisfaction of the Contract Administrator.
- E6.2 Ambulance/ Emergency vehicle access must be maintained at all times.

E7. SITE ENCLOSURES

- E7.1 Temporary Site enclosures, The Contractor must erect safety fencing around all open trench or sewer excavations, where the trench will be left unattended by the Contractor.
- E7.2 The Contractor shall erect a safety fence along the east limit of the Work limit/baseball field, to protect the baseball players and spectators. This fence shall remain in place until such time the new sod is fully installed, along this side of the Site.

E8. LAYOUT OF WORK

- E8.1 The Contractor shall set control lines and bench marks 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. Care must be taken that the Contract Administrator be notified immediately of the disturbance of any such stakes or marks; the cost of correcting any errors arising out of neglect of the Contractor or his agent or his employees, to so notify the Contract Administrator shall be borne entirely by the Contractor, as well as the cost of replacing any disturbed stakes or marks.
- E8.2 All layout Work shall be inspected and approved by the Contract Administrator prior to construction.
- E8.3 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 is 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.

E9. SITE RESTORATION

- E9.1 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.
- E9.2 The Contractor must not damage any existing sod on the adjacent baseball fields, and shall not allow any vehicles or materials onto those areas. The Contractor is made aware the baseball field will remain in play during the course of construction.

E10. REMOVAL OF EXISTING SOD LAYER

- E10.1 Except for the asphalt running track, minor play equipment areas, and the athletic long jump facilities, the entire Site is fully covered with existing grass. The grass thatch and top 25 mm of topsoil/roots are to be removed and legally disposed off-site. This grass material is not to be used for fill.

- E10.2 Where sod is to be removed, it shall be mowed to a 25 mm height, and the top 25 mm of grass and roots sheared off, and legally disposed off-site. In lieu of shearing the grass off it may be rototilled to a shallow depth and the rototilled material removed from Site.
- E10.3 The remaining root system is to be further rototilled to break the soil/roots up, and then spread out in to a maximum 50 mm depth layer though out areas requiring fill and compacted prior to placing additional fill or topsoil on top of it.
- E10.4 Removal of the existing grass layer is to be included in Unit Price Item No: 2 "General site demolition: grass removal, gravel paving, and minor areas of concrete paving".

E11. DEMOLITION AND SALVAGE

- E11.1 In general terms Demolition will involve the following:
- (a) Removal of existing asphalt paved running track and granular base
 - (b) Removal of three (3) culverts located under the running track
 - (c) Removal of the existing grass surface
 - (d) Removal of damaged wood bollards
 - (e) Removal of the existing metal frame bleachers c/w concrete pads
 - (f) Removal of two (2) small areas of concrete paving
 - (g) Removal of gravel paved long jumps and sand pits
 - (h) Removal of old sand and pea gravel safety surfacing by the old play equipment areas.
 - (i) Removal of existing football goal post footings. The goal posts are to be salvaged.
- E11.2 In general terms Salvage will involve the following:
- (a) Relocation of one set of existing football goal posts.
 - (b) Relocation of one baseball diamond metal frame bleachers
 - (c) Salvaging of the existing topsoil for re-use
- E11.3 The Bidder is made aware the City of Winnipeg will remove two existing swings, one slide and one sand box. The Contractor will be responsible for removing the remaining sand or pea gravel safety surfacing.
- E11.4 The existing asphalt paved running track surface shall be demolished and removed from Site. The existing granular base located below the asphalt paving must be removed to at least a 200 mm depth below the new finish grade elevations.
- E11.5 All culverts located below the running track are to be removed and legally disposed of off-site.
- E11.6 The existing grass surface is to be removed and legally disposed of off-site as specified in E10.
- E11.7 Damaged wood bollards are to be removed and legally disposed of off-site.
- E11.8 The large metal frame, wood seat bleachers, and concrete pads, located on the north side of the existing football field, are to be removed and legally disposed of off-site.
- E11.9 The two small round concrete paved areas are to be demolished and the concrete paving and granular base removed and legally disposed of off-site.
- E11.10 The existing gravel paved long jump runways and sand landing pits are to be excavated and the gravel/sand removed to a 200 mm depth below the new finished grade elevations and legally disposed of off-site.

- E11.11 The old sand and pea gravel surfacing around the sand box and old play equipment area is to be removed to a 200 mm depth below the new finished grade elevations and legally disposed of off-site.
- E11.12 The existing football goal posts are to be salvaged by cutting the post off flush with the concrete bases. The concrete footings are to be pulled out and the holes backfilled with gravel. Reinstalling the salvaged goal posts is specified in E21.
- E11.13 The existing metal frame wood seat baseball bleachers are to be relocated to behind the baseball backstop as located on drawing 1-L2. Reinstalling of the bleachers is specified in E22.
- E11.14 There is a considerable depth of existing topsoil below the existing football field area, based on seven test pits, which test pit locations and depth in metres, is shown on drawing 1-L1. After the grass has been removed the Contractor shall strip enough existing topsoil to allow for the installation of at least 100 mm depth of the salvaged topsoil to be installed over the football field and two soccer fields. At least 1,870 cubic metres, after reasonable settlement, will need to be salvaged. The salvage topsoil shall be installed on top of the new rough grade, prior to installing the new 100 mm depth of imported topsoil. The salvaged topsoil shall be graded smooth, so the surface of the newly installed salvaged topsoil is 100 mm below the new finish grade elevations shown on drawing 1-L2. There are no other areas where it is deemed that the existing topsoil can be salvaged with any success.
- E11.15 Method of Measurement and Basis of Payment
- E11.15.1 Method of Measurement shall be as follows:
- (a) Demolition and salvage shall be measured on a lump sum basis or unit price basis as noted in the Form B: Prices for:
- (i) Item 1: "Remove existing asphalt running track, granular base and three culverts" on Form B: Prices.
 - (ii) Item 2: "General site demolition: grass removal, gravel paving, and minor areas of concrete paving" on Form B: Prices. This price shall include the removal of the existing metal frame bleacher, old goal posts footings, and sand and pea gravel safety surfacing the by the old play equipment.
 - (iii) Item 4: "Salvage existing topsoil and reinstall 100 mm depth (under imported topsoil) for football field and two soccer fields, as sub-base for new imported topsoil" on Form B: Prices.
 - (iv) The relocation of the existing football goal posts is to be included in Item 5: "Salvage 2 existing football goal post and reinstall" on Form B: Prices. The installation Work is specified in E21.
 - (v) The relocation of the existing baseball bleachers is to be included in Item 7: "Relocate baseball bleacher c/w new granular base below bleachers" on Form B: Prices. The installation Work is specified in E22.
 - (vi) The removal of the existing damaged wood bollard is to be included in the unit price of the new wood bollards in Item 18: "Remove existing damaged wood bollards and install new bollards" on Form B: Prices.
- (b) Basis of Payment shall be as follows:
- Demolition and salvage will be paid for on a Lump Sum or Unit Price Basis as identified on Form B: Prices. The amount to be paid for shall be for full payment for supplying all labour, equipment and materials, and performing all operations herein described and all other items incidental to the Work and as accepted by the Contract Administrator.

E12. EARTHWORK AND GRADING

- E12.1 This specification shall amend and supplement City Specification CW 3170-R3 and cover the operations relating to the earthwork and grading of the Site as shown on the Construction Drawings.
- E12.2 *All rough grading and finish grading must be undertaken using earthmoving equipment which is guided by laser or GPS controlled data.* Visual grade stakes shall also be installed to supplement the electronic data
- E12.3 The Contractor shall re-construct the football/soccer fields within the limits indicated and as shown on the Construction Drawings.
- E12.4 The Contractor shall excavate or fill to the design grades shown less the appropriate allowance for surface treatment, topsoil and sod. All unsuitable materials of whatever nature encountered shall be excavated, removed and disposed of by the Contractor to the satisfaction of the Contract Administrator. Where design grades are not shown, the new surface materials shall be installed to meet flush with surrounding grades, and sloped so as not to impede the existing drainage pattern.
- E12.5 Construction to the new design grades shall be accomplished by the excavation of material from high areas (around perimeter edge), and using the suitable excavated material along with imported clean earth fill for filling in the low areas as indicated by the elevations shown on Construction Drawings. Backfill shall be placed in a dry, thawed condition and shall be maintained free of moisture or frost.
- E12.6 The perimeter area along the outside edges of the field, as defined by the heavy broken line shown on drawing detail 1-L2 shall be cut with a vertical shearing operation, such as using a sharp spade or edger, to create a clean and definite line for the new sod to abut flush to.
- E12.7 The design gradient for all other areas shall be considered to be straight grade between the finished design elevations shown. Changes in grade at swales or where it meets existing sod to remain shall be gently contoured as directed by the Contract Administrator to provide future ease of grass mowing operations.
- E12.8 In fill areas where the difference between the existing ground elevation and the new finished design elevation is less than 300 mm, the Contractor shall scarify the existing ground to a minimum depth of 50 mm prior to placement of any fill.
- E12.9 Should the Contractor require additional fill it shall be imported clean clay or topsoil fill from off-site sources. No further payment will be made for importing off-site fill.
- E12.10 All surplus fill material shall be removed and legally disposed off-site by the Contractor. No further payment will be made for disposing of surplus fill.
- E12.11 The Contractor shall construct all sub-grades in accordance with Specification CW 3110-R9. This shall include the use of suitable compaction equipment as approved by the Contract Administrator to achieve a minimum compaction of 95% Standard proctor Density. Lifts shall not exceed a compacted thickness of 150 mm.
- E12.12 The earthwork and grading operation shall also reinstall a 100 mm depth, surface layer of topsoil, on top of the rough grade for the football field and two soccer fields. This salvaged topsoil shall be graded a uniform 100 mm depth below new finished grade elevations.
- E12.13 Following earthmoving, rough grading and compaction, the Work areas shall be fine graded to provide a maximum deviation of 50 mm in 10 metres from the design grade with no low areas that hold water. The finished surface of all disturbed areas shall be dragged and smoothed in such a manner that there are no loose soil particles greater than 50 mm in maximum dimensions.

E12.14 Method of Measurement and Basis of Payment

E12.14.1 Method of Measurement shall be as follows:

- (a) Earthwork and grading shall be measured on a lump sum basis in Item 3: "General site rough grading" on Form B: Prices.

E13. UNDERGROUND GRANULAR DRAINAGE CHANNEL

E13.1 This specification covers the supply and installation of new underground granular drainage channels to carry the rain water to the new catch basin. See details 1 & 2 - L3 for the construction detail.

E13.2 Materials

- (a) Drainage pipe: "Goldline" 100 mm dia. (4") perforated drainage pipe, complete with fittings and polyester sock or approved substitute in accordance with B7.
- (b) Filter Fabric: Armtec 200, non-woven geotextile, or approved substitute in accordance with B7.
- (c) Limestone Backfill in Trench: 19 mm (3/4") diameter, clean limestone free of fine particles.
- (d) Limestone Cap over Trench Top: 6 mm (1/4") diameter, crushed limestone down.

Construction Method

E13.3 The Contractor shall install an underground granular drainage channel around the entire perimeter area of the football field and ¾ soccer field, as located on drawing 1-L5. The drainage channel shall be installed using laser or GPS guided equipment.

E13.4 Prior to installing the drainage channel stake the location and ensure the distances and clearances comply with the drawing layout shown on detail 1-L5. Confirm required clearances to baseball backstop and pressure treated timber wall are achievable. Notify the Contract Administrator of any conflicts.

E13.5 The drainage channel is specified to be 400 mm (16") wide; however, the Contractor may install a wider trench to suit the excavation equipment bucket. Use of wider trenching equipment requires the approval of the Contract Administrator. If the trench is widened it shall be widened towards the inside of the play fields.

E13.6 The preferred method of excavating the trench is after all the new topsoil has been placed on both sides of the trench, to a width necessary to support the excavation equipment. This will allow the geotextile fabric and stone to be retained by the topsoil on both sides of the trench to the trench's final height, allowing the finished trench elevation to be achieved.

E13.7 The preferred method of installing the trench is to continuously backfill the trench with the geotextile and stone as it is excavated, so there are no long areas of trench excavations open which would create a safety issue, when the Contractor is not on Site. When the Contractor is not on Site, all open excavations shall be clearly marked with a safety fence or colourful stakes/ribbons spaced 10 meters apart along the trench's length.

E13.8 The trench shall be excavated to the invert elevations shown on drawing detail 1-L2. All trench elevation shall slope to the low point with is located by the new catch basin located at the north end of the ¾ soccer field. The trench bottom shall be excavated with smooth bucket equipment (no teeth), and all loose soil debris is to be removed from the bottom of the trench, prior to installing the filter fabric.

E13.9 The entire trench base, walls and top shall be lined with filter fabric which has been rolled out lengthwise with the trench, with any seams spaced a minimum 30 metres apart, or further. Seams located lengthwise along the trench shall be overlapped a minimum of 600 mm. Where

the seam is located on the top of the trench it shall be overlapped a min. of 200 mm as shown in detail 1-L3.

- E13.10 Where the two new weeping tile pipes meet the catch basin they shall be installed to the new invert elevations shown on drawing 1-L2, and connected to the catch basin by coring through the wall of the catch basin and installing the weeping tile a minimum of 200 mm into the catch basin. The holes around the weeping tile shall be filled with masonry grout from the inside and outside of the catch basin. The west inlet requires an additional pipe to be installed through the wall, in order to maximize the amount of water which the outlet pipe will handle.
- E13.11 The top of the underground granular drainage channel filter fabric shall be covered with a layer of 6 mm crushed limestone down. The depth of limestone must not be under 20 mm thickness or over 35 mm thickness. The preferred method/time to install the limestone is after the sod has been installed, to prevent dirt from contaminating the new gravel. The fabric must be cleaned of any dirt debris before installing the gravel, either by sweeping it clean or using a leaf blower. The finished layer of gravel shall be raked smooth and lightly compacted by passing a vibratory plate compacted over it.

E13.12 Method of Measurement and Basis of Payment

E13.12.1 Method of Measurement shall be as follows:

- (a) The underground granular drainage channel shall be measured on a lump sum basis and shall include the cost of the excavation and installation of the new filter fabric, weeping tile, granular back fill and granular cover, as noted in the Form B: Prices for Item No: 8: "Supply and install underground granular drainage channel".

E14. NEW CATCH BASIN AND LEAD

- E14.1 This specification covers the supply and installation of a new catch basin, land drainage sewer, and tie into the City combined sewer located on the north side of Maginot Street.
- E14.2 This specification shall amend and supplement City Specification CW 2030 and CW 2130 Gravity Sewer.
- E14.3 The design of the catch basin and Lead connection to the existing 900 mm dia. combine sewer has been prepared by G.A. Pratt and Associates.
- E14.4 The new catch basin shall be installed with invert elevations for the various pipes as shown on Detail "A" sheet L-2.

E14.5 Method of Measurement and Basis of Payment

E14.5.1 Method of Measurement shall be as follows:

- (a) The new catch basin installation will be measured on a lump sum basis and shall include the cost of the excavation and installation of the new catch basin, cover, and backfill, as noted in the Form B: Prices for Item No: 9: "New catch basin".
- (b) The new PVC Lead from the new catch basin to the existing combined sewer will be measured on a per lineal metre basis and shall include the cost of the excavation and supply and installation of new pipe, connection to the new catch basin, and backfill, as noted in the Form B: Prices for Item No: 10: "New 200 mm dia. land drainage P.V.C. Lead".
- (c) The connection of the new 200 mm dia. P.V.C. Lead to the existing 900 mmd dia. concrete combined sewer will be measured on a lump sum basis and shall include the cost of the excavation, connection to the existing combined sewer, backfill, and sodding or paving restoration, as noted in the Form B: Prices for Item No: 11: "Connect new 200 mm dia. land drainage P.V.C. Lead to existing 900 dia. combined sewer".

E15. SODDING

- E15.1 This specification shall amend C.W. 3510-R9.
- E15.2 The Contractor is responsible to repair any damage to the existing sod, outside the Work Area, at no cost to the City.
- E15.3 Further to CW 3510-R9, Item 9.6 Watering and Rolling, the Contractor is informed they may use the new irrigation system, if weather permits to establish the new sod, however they are responsible for paying for all water costs. With respect to the football field sod, the water meter for the football clubhouse will be read prior to commencing the watering and establishment of the football field sod. With respect to the soccer field, the new water meter in the summer service pit will be read prior to commencing watering.
- E15.4 For areas not watered or covered by the new irrigations system the Contractor will have to manually water the sod. They may adapt the new water service valve boxes to gain on site water access or import water from off-site sources.
- E15.5 The Contractor is responsible for supplying all hoses, sprinklers, and fittings necessary, to connect to the new water service.
- E15.6 The football field and two soccer field areas of new sod shall have a 100 mm depth of screened topsoil installed below the sod and not 75 mm as identified in CW 3540-R4. This new topsoil is to be placed over top of a 100 mm depth of salvaged topsoil which has previously been placed as part of the rough grading operation. Areas not located within the play fields and as shown on drawing 2-L5 shall receive the standard 75 mm depth of topsoil below the new sod. Specified depth shall be measured after the topsoil has been rolled with a 50kg roller, minimum 900 mm wide.
- E15.7 Method of Measurement and Basis of Payment
- E15.7.1 Method of Measurement shall be as follows:
- (a) Sodding shall be measured on a unit price basis and shall include the cost of the new topsoil base, as noted in the Form B: Prices for:
 - (i) Item 19: "Supply and install 75 mm depth imported topsoil and sod for non-playfield areas" on Form B: Prices.
 - (ii) Item 20: "Supply and install 100 mm depth imported topsoil and sod for football field area" on Form B: Prices.
 - (iii) Item 21: "Supply and install 100 mm depth imported topsoil and sod for $\frac{3}{4}$ soccer field area" on Form B: Prices.
 - (iv) Item 22: "Supply and install 100 mm depth imported topsoil and sod for mini soccer field area" on Form B: Prices.

E16. IRRIGATION SYSTEM

- E16.1 This specification shall amend C.W. 3530-R3.
- E16.2 The Contractor is made aware this Site will have two fully automatic irrigation systems, with different water sources.
- (a) The football field is to be connected to the existing 39 mm dia. water service located in the Football Clubhouse building. The mechanical room for the football clubhouse building is located along the south side of the building, almost centred on the exterior south wall. The Contractor shall investigate the location of the existing water lines and electrical wiring within the building, to determine the extent of piping/wiring required, and labour necessary to connect the new irrigations system to the existing services.

- (b) The two (2) soccer fields will be connected to a new summer water service pit, which will be installed near the north property line, along Maginot Street. The new water 75 mm dia. water service and pit enclosure is part of the Contractor's Work and must be installed in accordance with SD-241B and to C.W. 3530-R3.

E16.3 Materials

- E16.4 The following materials and equipment shall be utilized or approved substitute in accordance with B7:

- (a) Metal Valve boxes: shall be custom manufactured as per drawing details 2, 3, 4 and 5 sheet L5 and the sizes may be adjusted to suit the requirements to accommodate all the equipment. If individual holes are cut in the wall for each zone line the pipe must be wrapped with a protective metal covering secured with gear clamps. The Contractor shall fabricate a smaller enclosure to house the water service box immediately outside the building wall. Locate all openings for the water lines in the appropriate, side or ends. Rubber cover for valve box shall be 16 mm thick rubber truck box liner (possible source Princess Auto).
- (b) Solenoid valves: shall be "Hunter PGV-201"
- (c) Swing joints: shall be "Spears #5807-01008 schedule 80+ swing joint" or "Lasco # G132-212 unitized swing joint".
- (d) Fittings: "Flo-Control #422010 saddle fittings" at head connections.
- (e) Quick coupling valve: shall be "Buckner QCV-100" with stainless steel lid. Provide one (1) key and one (1) hose swivel.
- (f) Sprinklers: shall be "Hunter I-25-04-SS" Ultra series, stainless steel risers, with nozzle size as shown on the drawings.
- (g) Irrigation Controller: shall be "Hunter PCC-1200 Pro Series, 15 station". Two (2) required. One for each system. Contractor to also supply an outdoor vandal-proof metal enclosure to house each controller.
- (h) Solenoid wire: shall be #18 gauge – 16 conductor Multi Strand irrigation cable with a direct burial jacket. No splices allowed.
- (i) Rain Sensor: shall be "Hunter Rain –Clik, wireless model". Two (2) required. One for each system. Mount rain sensor at upper roof peak on football clubhouse building.
- (j) Check valve: shall be "Watts 007-QTDCVA #62427 dual check valve" for football field water service.
- (k) Double check valve: shall be "Watts 75 mm 709 Double Check Valve NRS". This valve is for the summer water service located in the summer service enclosure.
- (l) Sleeving: shall be P.V.C. and the size noted on the drawings.

E16.5 Installation

- (a) The Contractor shall connect a new 39 mm dia. copper water service to the existing 39 mm dia. water service in the Football Clubhouse Building, mechanical room complete with a water meter and dual check valve. The location of the new water line requires the approval of the Contract Administrator. The new water service line where it exits the building should be installed to not be visible if possible on the exterior of the building. If the water line must be installed outside the building wall, it shall be located at floor level and have a ninety degree elbow installed immediately outside the building wall, so the water line has a minimal of outdoor visual exposure.
- (b) The Contractor shall install a new 75 mm diameter summer water service water supply for the soccer field irrigation systems, in accordance with SD-241B and as per CW 3530-R3. This water service shall include a double check valve and water meter and be located as per drawing detail 1-L4.
- (c) Both irrigation controllers for each play field system shall be installed at eye level on the exterior south wall of the Football Field Clubhouse building. The Contractor shall mount

each controller is separate vandal-proof metal enclosures. The Contractor shall install a new 110 volt electrical duplex outlet near the controllers. Any new building wiring shall be run in galvanized metal conduit.

- (d) All solenoid wiring from the Controller to the exterior water service enclosure is to be run on the inside of the building and installed in galvanized metal conduit.
- (e) The solenoid wiring from the outdoor water service enclosure to each valve box is to be installed in polyethylene conduit.
- (f) Where the new water service for the football field irrigation system crosses under the existing interlocking paved walkway, it shall be installed in a 150 mm dia. P.V.C. sleeve. The Contractor will have to remove and reinstall the interlocking paving in accordance with CW 3330-R5 Installation of Interlocking Paving Stones. The cost for removing and reinstalling the interlocking paving shall be included in the cost of the Football Irrigation System on Form B Prices: Item No. 12.
- (g) Where the new football field irrigation water service meets the underground granular channel, install the new P.V.C. conduit over top of the granular drain. The underground granular channel can be lowered to 200 mm below finish grade elevation to run under the new conduit/water line, to prevent the underground granular channel from being punctured. The underground granular channel filter fabric wrap must not be punctured.
- (h) All new irrigation lines installed in the football or soccer fields are to be ploughed in. Open trenching is not permitted.
- (i) All sprinkler head excavations are to be backfilled with sand as per construction detail 6-L4.
- (j) Where half circle sprinkler heads are installed, they shall be oriented to all watering a full circle to help establish the new grass. Once the new grass is installed they shall be set to water the play fields only.

E16.6 Method of Measurement and Basis of Payment

E16.6.1 Method of Measurement shall be as follows:

- (a) The Irrigations System shall be measured on a lump sum price basis and shall include the cost for all equipment and labour to install the equipment, as noted in the Form B: Prices for:
 - (i) Item 12: "Supply and install new irrigation system for football field, complete with water service connection to the existing clubhouse building existing water service" on Form B: Prices.
 - (ii) Item 13: "Supply and install new summer water service pit, c/w double check valve and water meter" on Form B: Prices.
 - (iii) Item 14: "Supply and install new irrigation system for two (2) soccer fields" on Form B: Prices.

E17. FUTURE LIGHTING CONDUIT

- E17.1 This specification covers the supply and installation of a new conduit for the future lighting of the football field.
- E17.2 The location of the conduit is shown on drawing detail 1-L2
- E17.3 The conduit shall be 50 mm polyethylene pipe as per C.W. 3530-R3 using irrigation pipe. The conduit shall be installed a minimum of 600 mm below new finish grade elevations.
- E17.4 The pipe must be pushed in (open trenching is not permitted). Where the pipe meets the underground granular drainage channels it shall be installed under the drainage channel to prevent puncturing of the filter fabric around the drainage channel.
- E17.5 Both ends of the pipe are to be capped and marked with Re-bar stakes which are driven 50 mm below the finish grade elevations.

E17.6 Method of Measurement and Basis of Payment

E17.6.1 Method of Measurement shall be as follows:

- (a) The Future lighting conduit shall be measured on a per lineal metre basis and shall include the cost of all materials and labour to supply and install the conduit, as noted in the Form B: Prices for Item No: 17: "Supply and install mew 50 mm dia. polyethylene conduit for future football field lighting".

E18. CRUSHED LIMESTONE PAVING

E18.1 This Specification shall amend and supplement City Specification CW 3150. The Work to be done by the Contractor under this Specification shall cover all phases of supply and placement of crushed limestone surfacing materials necessary to install gravel paving under the relocated baseball diamond bleachers and along the new timber wall by the baseball diamond

E18.2 See drawing 1-L2 for the new bleacher location and area requiring gravel paving.

E18.3 See drawing 6-L for the location of the limestone paving by the timber wall.

E18.4 Materials

- (a) Gravel shall be 19 mm diameter crushed limestone down.

E18.5 Installation

- (a) The Contractor shall install a new 150 mm depth of granular pad centred on the baseball backstop. The front edge of the pad shall be set 1500 mm away from the back of the existing chain link mesh baseball backstop. The gravel pad will be 300 mm wider than all outside edges of the existing metal frame/wood seat bleachers, and shall be a minimum 2.8 metres x 6.2 metres area.
- (b) Prior to installing the gravel remove the top 50 mm of grass and topsoil and legally dispose off-site. Level the remaining topsoil/sub-base and dig down further if necessary so the subgrade is 100 mm below the highest point of the sod. Install and compact the subgrade level. Install a uniform 150 depth of gravel paving and compact with a plate compactor.
- (c) Slope perimeter edges of gravel paving around the bleacher pad down to the surrounding sod at maximum 4:1 slope.
- (d) The gravel paving by the pressure treated timber wall is to be installed as per the layout shown on drawing detail 6-L3 and construction detail 7-L3.

E18.6 Method of Measurement and Basis of Payment

E18.6.1 Method of Measurement shall be as follows:

- (a) The gravel paving below the bleachers shall be measured on a lump sum basis and is to be included in the relocation of the bleachers as noted in the Form B: Prices for Item No: 7: "Relocate baseball bleacher c/w granular base below bleachers". The Bidder shall allow 17.4 square metres of paving at a 150 mm depth in their bid submission.
- (b) The gravel paving by the pressure treated timber wall shall be measured on a per square metre basis as noted in the Form B: Prices for Item No: 16: "Supply and install 150 mm depth of granular paving by new timber wall (by baseball diamond)".

E19. WOOD BOLLARDS

E19.1 This specification covers the removal of existing damage wood bollards and the supply and installation of new wood bollards, to be installed along the rear lane.

E19.2 Wood bollards are to be installed in accordance with SCD-105B.

- E19.3 The Contract Administrator will field identify the wood bollards which are to be replaced.
- E19.4 The Contractor is to remove all old damaged wood bollards, some of which are flush with the existing ground. The Contractor shall hand excavate around the wood bollards if necessary, in order to remove even the buried portions of the old posts.
- E19.5 All old and damaged posts which are removed are to be legally disposed of off-site.
- E19.6 New wood bollards shall be installed in the old post locations in accordance with the drawing detail.

Measurement and Payment

- E19.7 Wood bollards will be paid for on a per unit basis, as shown in the unit price form, Unit Cost Item No. 18 "Remove existing damaged wood bollards and install new wood bollards". The price shall include all costs for the removal of the damaged wood bollards, excavation of the holes, supply and installation of the wood bollard, gravel backfill, and clean up and removal of the excavated post auger material.

E20. TIMBER WALL

- E20.1 This Specification shall cover the supply and installation of a pressure treated timber wall by the baseball diamond, as located in detail 6-L3, and as per construction detail 7-L3.
- E20.2 The gravel paving around the wall is specified in section E18: Crushed Limestone Paving.
- E20.3 Materials
 - (a) Levelling base shall be 19 mm dia. crushed limestone down.
 - (b) Backfill for wall shall be 19 mm dia. crushed clean limestone.
 - (c) Pressure treated timbers shall be No: 2 or better, ACQ pressure treated pine, green colour, 150 x 150, smooth 4 sides.
 - (d) End cut preservative shall be as manufactured and recommended by wood preservative manufacturer.
 - (e) Fasteners for securing P.T. timbers to grade shall be 19 mm dia. x 600 mm steel re-bar.
 - (f) Nails for securing wall layers together shall be 250 mm long galvanized spikes, ardox preferred.
 - (g) Geotextile shall be Armtex 200 or approved equal.
- E20.4 Installation
 - (a) The Contractor shall install the pressure treated timber wall behind the first base player's bench as located on drawing 6-L3. Prior to commencing construction the Contractor shall stake the location of the wall and ensure it is at least 3 metres from the underground granular drainage channel, and 2.1 metres from the baseball backstops chain link player's wings. Notify the Contract Administrator of any discrepancies.
 - (b) Construct the wall as per drawing detail 7-L3. Deadman ties must be installed in the middle layer, spaced at 3 metres on centre.
 - (c) All cut ends are to be treated with 2 coats of end cut preservative.
 - (d) Backfill the wall with clean limestone to the middle of the top layer and cover with geotextile.
 - (e) Install a 19 mm round over router bit edge to both top edges.

Measurement and Payment

- (a) The Timber Wall will be paid for on lump sum basis, as shown in the unit price form, Unit Cost Item No. 15 "Supply and install P.T. timber wall (by baseball diamond)". The price shall include all costs for the excavation of the subgrade, installation of gravel base, the supply and installation of all wood members, gravel backfill and clean-up of surplus materials.

E21. FOOTBALL GOALPOSTS INSTALLATION

E21.1 This specification shall cover the supply and installation one new set of football goal posts, and the removal and reinstallation of the existing football goal posts, and specified herein.

E21.2 The Contractor shall furnish all labour, materials, equipment and services necessary to complete the Work according to the drawings and specifications.

E21.3 The Contractor shall ensure all underground utilities have been located and protected prior to drilling for the footings.

E21.3.1 Materials

(a) New football goal posts:

- (i) Shape: gooseneck style with 275 mm offset overhang, from end line to face of post
- (ii) Upright Size: 5.638 metres width, 6.1 metre height, 75 mm dia. and aluminum
- (iii) Gooseneck support post: 141 mm dia. round painted steel
- (iv) Crossbar: 125 mm dia. round aluminum
- (v) Finish: yellow paint
- (vi) Quantity: one(1) set (2 posts)
- (vii) Miscellaneous materials: ground sleeve, access box, black protection pad, wind direction flags
- (viii) Acceptable Material: Kwik Goal Model No: 2D601 or approved equal in accordance with B7: Substitutes.

(b) Concrete for footings:

- (i) Type 50 sulphate resistant with a 28 day compressive strength of 30 Mpa.

(c) Metal Studs for welding to post anchor

- (i) Nelson Studs, 6 mm dia. x 100 mm long

(d) Touch up paint for existing post:

- (i) Exterior grade enamel paint, colour to match post.

E21.3.2 Construction Method

(a) The Contractor shall salvage the two existing football goal posts, by cutting the post off near or below existing grade. The Contractor shall co-ordinate the cutting and removal of the post to suit the new metal sleeve length shown in detail 4-L5, so when the crossbar is reinstalled, the top of the crossbar will be 3048 mm (10') above the existing grass finish grade elevation.

(b) The new location for installing the two salvaged goal posts is shown on drawing detail 1-L2. The Contractor will be responsible to protect the existing grass, and make any repairs as a result of their construction activity, to pre-construction condition, at no cost to the City.

(c) The two (2) existing football goal posts shall be installed in accordance with drawing detail 4-L5. The Contractor shall fabricate metal pipe sleeves and anchors to embed into the concrete footings. Metal pipe anchor shall be the same size and wall

thickness as the existing salvaged goal post vertical pipes. The metal pipe footing may have to extend above the finish grade if necessary for the salvaged goal post crossbar, to be set at 3048 mm (10') above finish grade. The metal pipe anchor must butt, and close tight to the existing goal post when installed. The two pipes shall be continuously welded together, and the welds ground smooth. Finish welded sections, with one coat of primer and two coats of paint.

- (d) The new gooseneck football goal posts come with an inground mount metal ground sleeve, which ground sleeve has a large flat bottom plate attached to it, which is meant to sit on a shallow gravel base, as the concrete is cast. This bottom plate shall be cut off and the post bottom welded close. The contractor shall then weld metal studs to the anchor the ground sleeve as shown in detail 3-L5. See manufacturer website for technical information on post construction and installation:

www.Kwikgoal.ca

- (e) The ground sleeve must be installed so when the post is installed the crossbar will be 3048 mm (10') above finish grade. The balance of the post shall be assembled and install as per the manufacturer's recommendations.

E21.4 Method of Measurement and Basis of Payment

E21.4.1 Method of Measurement shall be as follows:

- (a) The relocation of the existing football goal posts shall be measured on a lump sum basis as noted in the Form B: Prices for Item No: 5: "Salvage two existing goal posts and reinstall".
- (b) The new football goal posts shall be measured on a per unit basis, as noted in the Form B: Prices for Item No: 6: "Supply and install new football goal posts".

E22. EXISTING BLEACHER RELOCATION

E22.1 This Specification shall cover the repair and relocation of one existing metal frame, wood seat bleacher located by the northwest baseball diamond, and as located in detail 1-L2.

E22.2 The gravel paving under the bleacher is specified in section E18: Crushed Limestone Paving.

E22.3 Materials

- (a) Levelling base shall be 19 mm dia. crushed limestone down.
- (b) Pressure treated wood shall be No: 2 or better, ACQ pressure treated pine, green colour, 39 x 239 mm, smooth 4 sides.
- (c) End cut preservative shall be as manufactured and recommended by wood preservative manufacturer.
- (d) Fasteners for securing new wood seat shall be rustproof and match existing fastener, size and type.

E22.4 Installation

- (a) The Contractor shall install the gravel base for the new location in accordance with section E18.
- (b) The Contractor shall replace one 1.8 long seat which is in poor condition. The new wood shall be shaped to match the existing seat it is replacing.
- (c) The existing bleachers are to be carefully slid over and install level on the new gravel base. The bleachers shall be fastened to grade to match existing conditions.

Measurement and Payment

E22.5 The relocation of the Existing Bleachers will be paid for on a lump sum basis, as shown in the unit price form, Unit Cost Item No. 7 "Relocate baseball bleacher c/w granular base below bleachers". The price shall include all costs for the new gravel pad, replacement of the damaged seat and the relocation of the existing bleachers.