



THE CITY OF WINNIPEG

BID OPPORTUNITY

BID OPPORTUNITY NO. 242-2015

KILDONAN PARK GOLF COURSE – PATIO RENOVATION

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PART B - BIDDING PROCEDURES

B1. CONTRACT TITLE

B1.1 KILDONAN PARK GOLF COURSE – PATIO RENOVATION

B2. SUBMISSION DEADLINE

B2.1 The Submission Deadline is 4:00 p.m. Winnipeg time, May 14, 2015.

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

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

B3. SITE INVESTIGATION

B3.1 Further to C3.1, the Contract Administrator or an authorized representative will be available at the Site from 9:00 a.m. to 10:00 a.m. on May 5, 2015 to provide Bidders access to the Site.

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

B4. ENQUIRIES

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

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

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

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

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

B5. CONFIDENTIALITY

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

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

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

B6. ADDENDA

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

B7. SUBSTITUTES

- B7.1 The Work is based on the Plant, Materials and methods specified in the Bid Opportunity.
- B7.2 Substitutions shall not be allowed unless application has been made to and prior approval has been granted by the Contract Administrator in writing.
- B7.3 Requests for approval of a substitute will not be considered unless received in writing by the Contract Administrator at least five (5) Business Days prior to the Submission Deadline.
- B7.4 The Bidder shall ensure that any and all requests for approval of a substitute:
- (a) provide sufficient information and details to enable the Contract Administrator to determine the acceptability of the Plant, Material or method as either an approved equal or alternative;
 - (b) identify any and all changes required in the applicable Work, and all changes to any other Work, which would become necessary to accommodate the substitute;
 - (c) identify any anticipated cost or time savings that may be associated with the substitute;
 - (d) certify that, in the case of a request for approval as an approved equal, the substitute will fully perform the functions called for by the general design, be of equal or superior substance to that specified, is suited to the same use and capable of performing the same function as that specified and can be incorporated into the Work, strictly in accordance with the proposed work schedule and the dates specified in the Supplemental Conditions for Substantial Performance and Total Performance;
 - (e) certify that, in the case of a request for approval as an approved alternative, the substitute will adequately perform the functions called for by the general design, be similar in substance to that specified, is suited to the same use and capable of performing the same function as that specified and can be incorporated into the Work, strictly in accordance with the proposed work schedule and the dates specified in the Supplemental Conditions for Substantial Performance and Total Performance.
- B7.5 The Contract Administrator, after assessing the request for approval of a substitute, may in his/her sole discretion grant approval for the use of a substitute as an "approved equal" or as an "approved alternative", or may refuse to grant approval of the substitute.
- B7.6 The Contract Administrator will provide a response in writing, at least two (2) Business Days prior to the Submission Deadline, 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 B16.
- 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 B16.1(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 B16.1(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. DISCLOSURE

B11.1 Various Persons provided information or services with respect to this Work. In the City's opinion, this relationship or association does not create a conflict of interest because of this full disclosure. Where applicable, additional material available as a result of contact with these Persons is listed below.

B11.2 The Persons are:

- (a) N/A

B12. QUALIFICATION

B12.1 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.

B12.2 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>

B12.3 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);

B12.4 Further to B12.3(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/>).

B12.5 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.

B12.6 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.

B13. OPENING OF BIDS AND RELEASE OF INFORMATION

B13.1 Bids will not be opened publicly.

B13.2 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>

B13.3 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/>

B13.4 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.

B14. IRREVOCABLE BID

B14.1 The Bid(s) submitted by the Bidder shall be irrevocable for the time period specified in Paragraph 9 of Form A: Bid.

B14.2 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.

B15. WITHDRAWAL OF BIDS

B15.1 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.

B15.1.1 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.

B15.1.2 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.

B15.1.3 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 B15.1.3(b), declare the Bid withdrawn.

B15.2 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 B14.2 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.

B16. EVALUATION OF BIDS

- B16.1 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 B12 (pass/fail);
 - (c) Total Bid Price;
 - (d) economic analysis of any approved alternative pursuant to B7.
- B16.2 Further to B16.1(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.
- B16.3 Further to B16.1(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.
- B16.4 Further to B16.1(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 deducting item 8. SUPPLY AND INSTALL LIMESTONE BOULDERS, to achieve a new Total Bid Price.
- B16.4.1 Further to B16.1(a), in the event that a unit price is not provided on Form B: Prices, the City will determine the unit price by dividing the Amount (extended price) by the approximate quantity, for the purposes of evaluation and payment.

B17. AWARD OF CONTRACT

- B17.1 The City will give notice of the award of the Contract or will give notice that no award will be made.
- B17.2 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.
- B17.2.1 Without limiting the generality of B17.2, 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.
- B17.3 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 B16.
- B17.3.1 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.

- B17.4 Notwithstanding C4, the City may issue a Purchase Order to the successful Bidder in lieu of the execution of a Contract.
- B17.5 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 site preparation and landscaping work to renovate the patio area at Kildonan Park Golf Course Clubhouse building.

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

- (a) Removal and disposal of existing materials;
- (b) Site grading;
- (c) Supply and installation of concrete grade beam, concrete pavers, concrete block wall, LED solar paver lights, limestone boulders, glass fencing, cedar bar top and soil and sod;
- (d) Restore all areas damaged during construction, including fencing and grassed areas. No extra will be allowed for restoration Work.
 - (i) Fence shall be restored to be a continuous fence.
 - (ii) Wood mulch shall be completely removed.
 - (iii) Any damaged grassed areas shall be restored using sod, following Specification E22.

D3. CONTRACT ADMINISTRATOR

D3.1 The Contract Administrator is:

Kathy Roberts
Project Officer

Telephone No. 204 470-7380
Email: kathyroberts@winnipeg.ca

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

D3.3 Bids Submissions must be submitted to the address in 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
- D6.5 **Bids Submissions** must be submitted to the address in B8.5.

SUBMISSIONS

D7. AUTHORITY TO CARRY ON BUSINESS

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

D8. SAFE WORK PLAN

- D8.1 The Contractor shall provide the Contract Administrator with a Safe Work Plan at least five (5) Business Days prior to the commencement of any Work on the Site but in no event later than the date specified in C4.1 for the return of the executed Contract.
- D8.2 The Safe Work Plan should be prepared and submitted in the format shown in the City's template which is available on the Information Connection page at The City of Winnipeg,

Corporate Finance, Materials Management Division website at
<http://www.winnipeg.ca/matmgt/Safety/default.stm>

D9. INSURANCE

- D9.1 The Contractor shall provide and maintain the following insurance coverage:
- (a) commercial general liability insurance, in the amount of at least two million dollars (\$2,000,000.00) inclusive, with The City of Winnipeg added as an additional insured, with a cross-liability clause, such liability policy to also contain contractual liability, unlicensed motor vehicle liability, non-owned automobile liability and products and completed operations, to remain in place at all times during the performance of the Work and throughout the warranty period;
 - (b) if applicable, Automobile Liability Insurance covering all motor vehicles, owned and operated and used or to be used by the Contractor directly or indirectly in the performance of the Work. The Limit of Liability shall not be less than \$2,000,000 inclusive for loss or damage including personal injuries and death resulting from any one accident or occurrence;
 - (c) all risks installation floater, carrying adequate limits to cover all machinery, equipment, supplies and/or materials intended to enter into and form part of any installation.
- D9.2 Deductibles shall be borne by the Contractor.
- D9.3 The Contractor shall provide the Contract Administrator with a certificate(s) of insurance, in a form satisfactory to the City Solicitor, at least two (2) Business Days prior to the commencement of any Work but in no event later than seven (7) Calendar Days from notification of the award of Contract by Purchase Order.
- D9.4 The Contractor shall not cancel, materially alter, or cause each policy to lapse without providing at least thirty (30) Calendar Days prior written notice to the Contract Administrator.

D10. PERFORMANCE SECURITY

- D10.1 If the Contract Price exceeds twenty-five thousand dollars (\$25,000.00), the Contractor shall provide and maintain performance security until the expiration of the warranty period in the form of:
- (a) a performance bond of a company registered to conduct the business of a surety in Manitoba, in the form attached to these Supplemental Conditions (Form H1: Performance Bond), in the amount of fifty percent (50%) of the Contract Price; or
 - (b) an irrevocable standby letter of credit issued by a bank or other financial institution registered to conduct business in Manitoba and drawn on a branch located in Winnipeg, in the form attached to these Supplemental Conditions (Form H2: Irrevocable Standby Letter of Credit), in the amount of fifty percent (50%) of the Contract Price; or
 - (c) a certified cheque or draft payable to "The City of Winnipeg", drawn on a bank or other financial institution registered to conduct business in Manitoba, in the amount of fifty percent (50%) of the Contract Price.
- D10.1.1 Where the performance security is in the form of a certified cheque or draft, it will be deposited by the City. The City will not pay any interest on certified cheques or drafts furnished as performance security.
- D10.2 The Contractor shall provide the City Solicitor with the required performance security within seven (7) Calendar Days of notification of the award of the Contract by way of Purchase Order and prior to the commencement of any Work on the Site.

D11. SUBCONTRACTOR LIST

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

D12. DETAILED WORK SCHEDULE

D12.1 The Contractor shall provide the Contract Administrator with a detailed work schedule at least two (2) Business Days prior to the commencement of any Work on the Site.

D12.2 The detailed work schedule shall consist of the following:

- (a) a critical path method (C.P.M.) schedule for the Work;
- (b) a Gantt chart for the Work based on the C.P.M. schedule;
- (c) a daily manpower schedule for the Work;
- (d) Form L: Detailed Work Schedule

all acceptable to the Contract Administrator.

D12.3 Further to D12.2(a), the C.P.M. schedule shall clearly identify the start and completion dates of all of the following activities/tasks making up the Work as well as showing those activities/tasks on the critical path:

D12.4 Further to D12.2(b), the Gantt chart shall show the time on a weekly basis, required to carry out the Work of each trade, or specification division. The time shall be on the horizontal axis, and the type of trade shall be on the vertical axis.

D12.5 Further to D12.2(c), the daily manpower schedule shall list the daily number of individuals on the Site for each trade.

SCHEDULE OF WORK

D13. COMMENCEMENT

D13.1 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.

D13.2 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;
 - (vi) the Subcontractor list specified in D11; and
 - (vii) the Detailed Work Schedule specified in D12.
- (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.

D13.3 The Contractor shall commence the Work on the Site within seven (7) Working Days of receipt of the Purchase Order.

D14. SUBSTANTIAL PERFORMANCE

- D14.1 The Contractor shall achieve Substantial Performance within twenty-five (25) consecutive Working Days of the commencement of the Work as specified in D13.
- D14.2 When the Contractor considers the Work to be substantially performed, the Contractor shall arrange, attend and assist in the inspection of the Work with the Contract Administrator for purposes of verifying Substantial Performance. Any defects or deficiencies in the Work noted during that inspection shall be remedied by the Contractor at the earliest possible instance and the Contract Administrator notified so that the Work can be reinspected.
- D14.3 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.

D15. TOTAL PERFORMANCE

- D15.1 The Contractor shall achieve Total Performance within thirty (30) consecutive Working Days of the commencement of the Work as specified in D13.
- D15.2 When the Contractor or the Contract Administrator considers the Work to be totally performed, the Contractor shall arrange, attend and assist in the inspection of the Work with the Contract Administrator for purposes of verifying Total Performance. Any defects or deficiencies in the Work noted during that inspection shall be remedied by the Contractor at the earliest possible instance and the Contract Administrator notified so that the Work can be reinspected.
- D15.3 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.

D16. LIQUIDATED DAMAGES

- D16.1 If the Contractor fails to achieve Substantial Performance in accordance with the Contract by the day fixed herein for Substantial Performance, the Contractor shall pay the City three hundred dollars (\$300) per Working Day for each and every Working Day following the day fixed herein for Substantial Performance during which such failure continues.
- D16.2 The amount specified for liquidated damages in D16.1 is based on a genuine pre-estimate of the City's damages in the event that the Contractor does not achieve Substantial Performance by the day fixed herein for same.
- D16.3 The City may reduce any payment to the Contractor by the amount of any liquidated damages assessed.

D17. SCHEDULED MAINTENANCE

- D17.1 Further to Specification CW 3510-R9, the Contractor **shall not** be required to perform scheduled maintenance in the manner and within the time periods stated in Specification CW 3510 R9. Refer to E22.

CONTROL OF WORK

D18. JOB MEETINGS

- D18.1 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.

D18.2 The Contract Administrator reserves the right to cancel any job meeting or call additional job meetings whenever he/she deems it necessary.

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

D19.1 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).

D20. THE WORKPLACE SAFETY AND HEALTH ACT (MANITOBA) – QUALIFICATIONS

D20.1 Further to B12.4, 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 B12.4.

MEASUREMENT AND PAYMENT

D21. INVOICES

D21.1 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

D21.2 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.

D21.3 The City will bear no responsibility for delays in approval of invoices which are improperly submitted.

D21.4 Bids Submissions must be submitted to the address in B8.5.

D22. PAYMENT

D22.1 Further to C12, the City may at its option pay the Contractor by direct deposit to the Contractor's banking institution.

D23. PAYMENT SCHEDULE

D23.1 Further to C12, payment shall be in accordance with the following payment schedule:

- (a) 30% on completion of Special Removals, other removals and Rough Grading, including:
 - (i) All removals required in the contract, sawcutting, disposals and related Work

- (b) 60% on installation of all remaining items and attainment of Substantial Performance
- (c) 10% on attainment of Total Performance

WARRANTY

D24. WARRANTY

- D24.1 Notwithstanding C13.2, the warranty period shall begin on the date of Total Performance and shall expire two (2) years thereafter unless extended pursuant to C13.2.1 or C13.2.2, in which case it shall expire when provided for thereunder.

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. 242-2015

KILDONAN PARK GOLF COURSE – PATIO RENOVATION

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. 242-2015
KILDONAN PARK GOLF COURSE – PATIO RENOVATION

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)

FORM L: DETAILED WORK SCHEDULE
 (See D12)

KILDONAN PARK GOLF COURSE – PATIO RENOVATION

For each item of Work, indicate the proposed date that each cumulative percentage to be completed will be achieved.					
Items of Work	Percentage of Work Completed				
	Start	25%	50%	75%	100%
SPECIAL REMOVALS					
ROUGH GRADING					
SUPPLY AND INSTALL CONCRETE GRADE BEAM					
SUPPLY AND INSTALL PRE-CAST CONCRETE PAVERS					
SUPPLY AND INSTALL PRE-CAST CONCRETE BLOCK WALL (WITH CAP AND WITH NO CAP)					
SUPPLY AND INSTALL LED SOLAR PAVER LIGHTS					
SUPPLY AND INSTALL LIMESTONE BOULDERS					
SUPPLY AND INSTALL GLASS FENCING					
SUPPLY AND INSTALL BAR TOP					
SUPPLY AND INSTALL SOIL AND SOD					
CLEAN-UP AND SITE RESTORATION					

PART E - SPECIFICATIONS

GENERAL

E1. APPLICABLE SPECIFICATIONS AND DRAWINGS

E1.1 These Specifications shall apply to the Work.

E1.2 *The City of Winnipeg Standard Construction Specifications* in its entirety, whether or not specifically listed on Form B: Prices, shall apply to the Work.

E1.2.1 *The City of Winnipeg Standard Construction Specifications* is available on the Information Connection page at The City of Winnipeg, Corporate Finance, Materials Management Division website at <http://www.winnipeg.ca/matmgt/Spec/Default.stm>

E1.2.2 The version in effect three (3) Business Days before the Submission Deadline shall apply.

E1.2.3 Further to C2.4(d), Specifications included in the Bid Opportunity shall govern over *The City of Winnipeg Standard Construction Specifications*.

E1.3 The following are applicable to the Work:

<u>Specification No.</u>	<u>Specification Title</u>
CW3010	CLEARING AND GRUBBING
CW3110	SUB-GRADE, SUB-BASE AND BASE COURSE CONSTRUCTION
CW3170	EARTHWORK AND GRADING
CW3310	PORTLAND CEMENT CONCRETE PAVEMENT WORKS
CW3330	INSTALLATION OF INTERLOCKING PAVING STONES
CW3510	SODDING
CW3540	TOPSOIL AND FINISH GRADING FOR ESTABLISHMENT OF TURF AREAS

<u>Drawing No.</u>	<u>Drawing Name/Title</u>
K.3-1	Existing Conditions & Removals
K.3-2	Plan Overview
K.3-3	Proposed Plan
K.3-4	Materials Plan
K.3-5	Grading Plan
K.3-6	Details Plan 1
K.3-7	Details Plan 2
K.3-8	Custom Bracket Details
K.3-9	Layout Plan 1
K.3-10	Layout Plan 2

E2. HAZARDOUS MATERIALS

E2.1 If asbestos or other hazardous materials are encountered during the Work of the Contract, the Contractor shall stop all work and notify the Contract Administrator immediately. Removal of hazardous materials shall be dealt with by the City and the Contractor shall await further instruction by the Contract Administrator.

E3. MATERIAL AND EQUIPMENT

E3.1 Contractor shall be responsible for all transportation, handling, protection and storage of materials and equipment.

E4. QUALITY OF WORK

- E4.1 Ensure Quality of Work is of highest standard, executed by workers experienced and skilled in respective duties for which they are employed. Immediately notify Contract Administrator if required Work is such as to make it impractical to produce required results.
- E4.2 Do not employ anyone unskilled in his or her required duties. Contract Administrator reserves right to require dismissal from site, workers deemed incompetent or careless.
- E4.3 Decisions as to standard or fitness of Quality of Work in cases of dispute rest solely with Contract Administrator, whose decision is final.

E5. USE OF SITE AND PREMISES

- E5.1 Contractor shall allow for continued access throughout the construction period and shall ensure the facility's entering and exiting is maintained to the approval of the Local Authorities having Jurisdiction, local by-laws, and Work Place Safety and Health Policies.
- E5.2 Where Work must occur in public areas, all scheduling shall be arranged with the Contract Administrator prior to commencement of such Work and the Contractor shall submit a Safety Access Plan. Construction personnel must use only designated entrances for access to Work areas, delivery of materials and/or equipment and removal of construction debris.
- E5.3 Restrict equipment, Work and workers to designated areas and established routes to and from Work areas.
- E5.4 Storage of construction materials, tools, equipment, etc. in areas outside designated Work areas is not permitted.
- E5.5 Keep all fire lanes, egress, and access routes clear at all times.
- E5.6 On Site parking for construction related vehicles is prohibited.**
- E5.7 Contractor must provide washroom facilities for their workers. Contractor may not use the washroom facilities in the Clubhouse.

E6. CONSTRUCTION ACCESS PATH

- E6.1 Construction deliveries shall use the designated Construction Access gate only. No deliveries or access of any kind will be permitted at the North (parking lot) side of the Site.**
- E6.2 The Construction Access Path shall be delineated by a barrier on each side. The barrier shall not extend across the sidewalk. The barrier shall be established to provide as much clearance as possible away from the trees. Contractor shall consult with Contract Administrator and confirm location of the barrier.**
- E6.3 The Construction Access Path barrier shall:**
 - (a) **Consist of steel fencing, or orange plastic web snow fencing on a 2" x 4" frame.**
 - (b) **Be minimum 1.2 metres (4 ft) high and be installed in the location confirmed by the Contract Administrator.**
- E6.4 The Contractor shall prepare the Construction Access Path as follows:**
 - (a) **Within the barrier, Contractor shall supply and install 4" of wood mulch on all grassed areas.**
 - (i) **Mulch shall not be installed on the sidewalk or grass boulevard between the sidewalk and the road.**
 - (ii) **Twice daily (at mid-day and end-of-day), Contractor shall sweep wood mulch off sidewalk and roadway.**

- (b) **The 2 trees at the entrance to the Construction Access Path, in the grass boulevard by the roadway, shall be protected as follows:**
 - (i) **Supply and install planks with a minimum thickness of 25 mm and minimum length of 2440 mm attached around the trunk with strapping in a manner that will not harm the trees. Nails or other penetrating fasteners may not be used. The width of protection planks should suit the size of the tree being protected. Length of tree protection planks may be reduced to suit the tree if approved by the Contract Administrator.**
- (c) **During deliveries, Contractor shall lay 5/8" plywood over the entire Construction Access Path.**

E6.5 All areas outside the Construction Access Path are designated as Tree Protection Zones (TPZ). No construction activity is permitted within the TPZ, including traffic of any kind, construction, storage, disposal or flooding.

E6.6 As soon as the Construction Access Path is no longer required, the protection material must be removed in a manner that will not further compact the area or damage any trees or roots.

E6.7 Work shall be carried out so as to minimize damage to tree branches.

E6.8 Method of Measurement and Basis of Payment

E6.8.1 All Work related to Construction Access Path will be measured on a lump sum basis and included in Item 12, Construction Access Path, on Form B: Prices.

E7. SITE SAFETY AND TRAFFIC CONTROL

E7.1 Contractor shall maintain traffic flow in facility parking lots and around the buildings, and ensure that protection is afforded to the facility user. Contractor's operations shall in no way interfere with the safe operation of vehicle and pedestrian traffic.

E7.2 Construction fencing/barricades and proper signage will be required.

E7.3 Construction deliveries must be coordinated with the Contract Administrator, and will be only be allowed between 7:00 am – 9:00am weekdays.

E7.4 Contractor must have and use a written safety procedure to protect pedestrians, and car and bicycle traffic, during deliveries. Use of spotters on the road and sidewalk will be required.

E7.5 Contractor shall ensure that Construction Access gate is secured at all times, except while deliveries are being made.

E7.6 Only the following vehicles/equipment will be allowed to use the access gate:

- (a) **Standard size dump truck (4 trips maximum for the project);**
- (b) **Bobcat with tracks**
- (c) **Concrete Block/Paver delivery truck shall park on the road and crane the shipment onto the Construction Access Path area away from the sidewalk. Location to be as discussed on Site and confirmed with the Contract Administrator.**

E8. SITE CLEAN-UP

E8.1 All sidewalks, streets, approaches, driveways and properties near the Work Site shall be kept clean of debris and materials related to the Work at all times by the Contractor.

E8.2 The Contractor shall maintain the Site and the Work in a tidy condition and free from the accumulation of waste products and debris.

E8.3 On completion of the Work, the Contractor shall remove any products, tools, construction machinery and equipment not required for the performance of the remaining Work. He shall also remove waste products and debris, and clean the construction area for suitable occupancy.

E8.4 Total Performance of the Work shall not be attained until the Contractor has cleaned up the Site and has removed all plant and surplus products, tools, construction materials and equipment. The Contractor shall also have removed waste products and debris.

E9. MATERIAL SAFETY DATA SHEETS

E9.1 The Contractor shall provide the Contract Administrator with one (1) copy of Material Safety Data Sheets (MSDS's) for all products to be used in the performance of the Work at least two (2) Business Days prior to bringing such materials to Site or as otherwise specified in the Contract Documents.

E9.2 Throughout the term of the Contract, the Contractor shall provide the Contract Administrator with revisions or updates of the MSDS's as soon as may be reasonably possible

E10. REPAIRS TO BUILDING ENVELOPE

E10.1 Contractor will make repairs on any accidental penetrations through the building envelope air barrier by patching and making good to the approval of the Contract Administrator with approved material and methods.

E11. SITE RESTORATION

E11.1 The Contractor will be responsible for restoration of any and all damage and alteration caused by his forces on roadways or accesses, including fencing repair and grounds restoration, as determined necessary by the Contract Administrator.

E12. SPECIAL REMOVALS

E12.1 Description

E12.1.1 This specification is supplemental to the latest version of CW 3010 and CW 3110.

E12.1.2 Work shall include removal of the specified items as indicated in the Drawings and Specifications, including the furnishing of all superintendence, overhead, labour, materials, equipment, tools, supplies and all other things necessary for and incidental to satisfactory performance and completion of all Work.

E12.1.3 Work shall include the following:

- (a) Excavate and Legally Dispose of:
 - (i) Small Concrete Wall;
 - (ii) Concrete Landing and Ramp;
 - (iii) Rock Mulch; and
 - (iv) Galvanized Metal Posts.

E12.2 Construction Methods

E12.2.1 The Contractor shall remove existing concrete landing, ramp and wall in accordance with latest version of CW 3110.

E12.2.2 Excavate and Remove existing concrete landing, ramp, wall and base courses. Dispose of unsuitable material off site at a facility approved by the City of Winnipeg.

E12.2.3 Disposal of material shall be understood to mean hauling of all unsuitable material from the Site and the unloading in a legal manner acceptable to the Contract Administrator.

E12.2.4 Removals include the removal of concrete footings, excess granular base and any rebar that may be protruding out of building foundation once concrete is removed. Rebar to be sawcut cleanly at foundation.

E12.2.5 Contractor to ensure that building foundation is not damaged when removing concrete landing and shall use appropriately sized equipment for removals.

E12.2.6 All foundations shall be removed to full depth to the satisfaction of the contract administrator. Fill all holes resulting from removals with compacted granular in any areas where pavers and/or concrete block walls are to be located.

E12.2.7 Prevent damage to surface or underground utility lines which are to remain. Make good any damage.

E12.2.8 The contractor shall remove existing rock mulch and associated landscape fabric and galvanized metal posts in accordance with the latest version of CW 3010.

E12.3 Method of Measurement and Basis of Payment

E12.3.1 Removal of specific items noted above will be measured on a lump sum basis and included in Item 1, Special Removals, on Form B: Prices.

E13. EXCAVATION AND GRADING

E13.1 Description

E13.1.1 This specification shall amend and supplement CW 3110 and CW 3170. It shall cover the excavation and legal disposal of existing sod, asphalt, concrete and granular base to accommodate a new paver patio, pre-cast concrete block walls, concrete grade beam, new grade levels, and associated soil and sod.

E13.1.2 The Contractor must ensure that the site grading does not create tripping hazards and no areas of standing water remain. The grade of new sod, and paver patio must have positive drainage as per Drawings.

E13.1.3 All extraneous materials are to be removed from the Site and disposed of in a safe and legal manner. The Work to be done by the Contractor under this specification shall include all labour, equipment and material necessary for and incidental to the satisfactory performance and completion of the Work herein specified.

E13.1.4 Work shall include but not be limited to the following:

(a) Excavate, add clean fill if necessary, and rough grade excess soil to the limits shown on Drawings to the depths necessary to achieve finish grade for:

- (i) Paver patio area;
- (ii) Pre-Cast concrete block seating walls, and;
- (iii) Concrete grade beam.

(b) Grade site to the limits shown on Drawings and to the depths necessary to achieve finish grade for:

- (i) Soil and Sod areas.

E13.1.5 Grading to include the removal of the sod layer, the movement of earth to the specified grades as indicated in the Drawings and Specifications, the import of fill if required, and the legal disposal of excess fill if necessary.

E13.2 Construction Methods

E13.2.1 Excavation includes the removal of items (i.e., sod, earth, asphalt and granular) as indicated on the Drawings and as directed by the Contract Administrator. Work includes the satisfactory disposal of unsuitable Site material such as clays susceptible to frost-heaving, silts, rock, rubble, rubbish and any surplus suitable Site material.

- E13.2.2 Earthwork and Grading of the existing Site (cut and fill including compaction of subgrade and fill material) to ensure positive drainage in all new sod areas, paver patio and adjacent sodded areas.
- E13.2.3 Do not disturb adjacent items designated to remain in place.
- E13.2.4 Disposal of material shall be understood to mean the hauling of all unsuitable material from the Site and the unloading in a legal manner acceptable to the Contract Administrator. If arrangements are made in advance excavated material may be disposed of on Site at a location designated by the Contract Administrator.
- E13.2.5 Contractor must coordinate with the Contract Administrator to ensure all removals have occurred.
- E13.2.6 Excavation should be coordinated with the installation of pre-cast concrete and concrete materials so as not to leave an open excavation area subject to ponding water.
- E13.2.7 The depth of excavation in the paver node area shall directly relate to the specified Drawings.
- E13.2.8 Excavate to the limits shown and as necessary to achieve finish grades as indicated on the Drawings:
- (a) New Patio and Walkway Area – Varies with a minimum 236 mm depth, in accordance with Drawings and per E14;
 - (b) New Pre-Cast Concrete Block Seating Wall – Varies with a minimum 300 mm depth, in accordance with Drawings and per E16, and;
 - (c) New Concrete Grade Beam – Varies, with a maximum 450 mm depth, in accordance with Drawings and per E14.
- E13.2.9 Grade site to the limits shown on Drawings and to the depths necessary to achieve finish grade for:
- (a) Soil and Sod areas.
 - (i) Use clean fill from excavation to build up areas as described on grading plans.
- E13.3 Method of Measurement and Basis of Payment
- E13.3.1 Rough Grading
- (a) Excavation and grading for soil and sod areas, and all areas not itemized below shall be measured on a square meter basis, and included in **Item 2, Rough Grading**, on Form B: Prices.
 - (b) Grading will be paid for at the Contract Unit Price for **Item 2, Rough Grading**, on Form B: Prices. The amount to be paid for shall be the total number of units, measured as specified herein, which price 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.
- E13.3.2 Concrete Grade Beam
- (a) Measurement and payment for excavation, disposal and grading for the Concrete Grade Beam shall be included in **Item 3, Supply and Install Concrete Grade Beam**, on Form B: Prices.
- E13.3.3 Pre-Cast Concrete Pavers
- (a) Measurement and payment for excavation, disposal and grading for the Pre-Cast Concrete Pavers shall be included in **Item 4, Supply and Install Pre-Cast Concrete Pavers**, on Form B: Prices.
- E13.3.4 Pre-Cast Concrete Block Wall with Cap

- (a) Measurement and payment for excavation, disposal and grading for the Pre-Cast Concrete Block Wall with Cap shall be included in **Item 5, Supply and Install Pre-Cast Concrete Block Wall with Cap**, on Form B: Prices.

E13.3.5 Pre-Cast Concrete Block Wall with No Cap

- (a) Measurement and payment for excavation, disposal and grading for the Pre-Cast Concrete Block Wall with No Cap shall be included in **Item 6, Supply and Install Pre-Cast Concrete Block Wall with No Cap**, on Form B: Prices.

E14. CONCRETE GRADE BEAM

E14.1 Description

E14.1.1 This section shall cover the supply and installation of the cast in place concrete grade beam as per Drawings. It shall be read as supplementing City of Winnipeg Standard Construction Specifications section CW 3310.

E14.1.2 Work shall include all labour and materials required for satisfactory completion of the Cast in Place Concrete Grade Beam as indicated on the Drawings and Specifications, including excavation, removal, grading, base, compaction, placement, concrete, placement and finishing.

E14.2 Materials

E14.2.1 Concrete shall be Type 1 as per City of Winnipeg Standard Construction Specifications section CW 3310 and shall adhere to the dimensions on Drawings K.3-6 and K.3-8.

E14.2.2 Granular base shall be 19 mm diameter crushed limestone.

E14.2.3 Reinforcing steel shall be 10 m with 10 m ties at 600 mm O.C.

E14.2.4 Geotextile shall be non-woven and installed as shown on the Drawings. It shall have an apparent opening size of between 0.149 mm and 0.210 mm and a minimum weight of 135 grams per square metre.

E14.3 Construction Methods

E14.3.1 Layout is to be established on Site, after excavation and grading operations and reviewed by Contract Administrator prior to formwork being completed.

- (a) General Contractor shall install the grade beam as per the layout plans in the Drawings.

E14.3.2 Granular base, formwork and reinforcing are to be reviewed on Site by the Contract Administrator prior to pouring of concrete.

E14.3.3 Concrete is to be trowel finish. All exposed edges are to have 13 mm chamfered edges as shown on the Drawings. Top of curb is to be finished.

E14.4 Method of Measurement and Basis of Payment

- (a) Concrete Grade Beam will be measured on a linear metre basis and shall be included in Item 3, Supply and Install Concrete Grade Beam, on Form B: Prices.
- (b) Concrete Grade Beam will be paid for at the Contract Unit Price for Item 3, Supply and Install Concrete Grade Beam, on Form B: Prices. This price shall be 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.

E15. PRE-CAST CONCRETE PAVERS

E15.1 Description

- E15.1.1 The specification shall supplement the latest version of Specifications CW 3310 and CW 3330.
- E15.1.2 Work shall include all labour and materials required for satisfactory installation of the Pre-Cast Concrete Pavers as indicated on the Drawings and Specifications, including excavation, removal, grading, paver supply and installation.
- E15.1.3 Contract Administrator to approve Concrete Unit Pavers before installation commences.
- E15.2 Materials
- E15.2.1 Concrete Unit Pavers: Barkman Holland, **Desert Buff Colour**. Sizes to be 210mm x 105mm x 60mm (4.125" x 8.25" x 2.375").
(a) Quantity: 51.74 SM
- E15.2.2 Concrete Unit Pavers: Barkman Holland, **Sierra Grey Colour**. Sizes to be 210mm x 210mm x 60mm (8.25" x 8.25" x 2.375").
(a) Quantity: 56 **Pieces** (2.46 SM)
- E15.2.3 Concrete Unit Pavers: Barkman Verano, **Sierra Grey Colour**. Various Sizes: 292mm x 292mm x 60mm (11.5" x 11.5" x 2.375"), 292mm x 146mm x 60mm (11.5" x 5.75" x 2.375") and 146mm x 146mm x 60mm (5.75" x 5.75" x 2.375" in "Random Pattern 1" configuration.
(a) Quantity: 128.88 SM
- E15.2.4 Concrete Unit Pavers: Barkman Verano, **Old Town Colour**. Various Sizes: 292mm x 292mm x 60mm (11.5" x 11.5" x 2.375"), 292mm x 146mm x 60mm (11.5" x 5.75" x 2.375") and 146mm x 146mm x 60mm (5.75" x 5.75" x 2.375" in "Random Pattern 1" configuration.
(a) Quantity: 13.22 SM
- E15.2.5 Bedding sand shall be fine aggregate as specified in Section 5.2.3 of the latest version of CW 3330.
- E15.2.6 Polymeric Filler Sand which shall have a maximum aggregate size of 2.5mm.
- E15.2.7 Paving Edging Restraint as per the latest version of CW 3330.
- E15.2.8 Geotextile shall be non-woven and installed as shown on the Drawings. It shall have an apparent opening size of between 0.149 mm and 0.210 mm and a minimum weight of 135 grams per square metre.
- E15.3 Construction Methods
- E15.3.1 Excavation
- (a) Excavation shall comply with the latest version of CW 3110.
- (b) The excavation shall not exceed beyond the specified limits of excavation. The limits of excavation shall be taken as a vertical plane 150mm beyond the limits of the patio and walkway areas, unless otherwise specified on the Drawings or in the Specifications for the Work.
- (c) The sub-grade shall be excavated to the minimum depth as shown on the drawings, unless otherwise directed by the Contract Administrator.
- E15.3.2 Preparation of Sub-grade, Granular Base and Bedding Sand
- (a) The construction of sub-grade shall be completed in accordance with the latest version of CW 3110 and to the depth as specified on the Drawings.
- (b) A non-woven geotextile fabric shall be placed on top of the sub grade. Individual pieces, shall where applicable, shall overlap by 150 mm minimum.
- (c) The granular base shall be placed to a minimum depth of 150 mm. Because elevation of patio is to be raised higher than that of the surrounding existing grade, the granular base will vary in depth throughout the patio area with 150 mm being the minimum.

- (d) The granular Base shall be compacted as per CW 3310 and CW 3330.
- (e) On top of the granular base a 25 mm layer of bedding sand shall be placed.
- (f) The bedding sand layer shall be spread and levelled so that the paving stones when installed are 10 mm higher than the finished grade. No more sand shall be spread than can be covered in one day by paving stones. The bedding sand layer shall not be compacted prior to laying the paving stones.
- (g) Contractor's Work shall include:
 - (i) supply and place the granular
 - (ii) supply and place the bedding sand
 - (iii) supply and place non-woven geotextile fabric
- (h) No paving stones shall be placed until construction of the underlying layers has been approved by the Contract Administrator.

E15.3.3 Installation of Paving Stones

- (a) The paving stones shall be installed such that spaces between joints do not exceed 5mm. Spaces between paving stones shall be uniform and consistent while maintaining straight and true patterns as per Drawings.
- (b) Work shall commence with the establishment of the paving border as shown on the Drawings. For main Patio areas, Verano "random pattern 1" paving pattern shall be established at a 45 degree angle along the longest straight edge of paving border and work towards the opposite edge as indicated on the Drawings. For Walkway and Approach Areas the Verano "random pattern 1" paving pattern shall be established along the longest straight edge of paving border that runs perpendicular to pedestrian path of travel.
- (c) If cutting of paving stones is required, the sawn or sheared edges shall be true, even and undamaged. Coloured mortar shall be used to fill small voids between blocks and pre-cast concrete seating wall.
- (d) Paving stones shall be compacted into the sand layer using approved vibratory compactors until they are at the proper grade, uniformly level and free of any movement. Filler sand shall be Polymeric Sand and is to be swept into the joints until full.
- (e) Contractor's Work shall include:
 - (i) supplying and placing polymeric filler sand
 - (ii) supply and installation of paving stones
 - (iii) supply and installation of snap edge

E15.3.4 Method of Measurement and Basis of Payment

E15.3.5 Pre-Cast Concrete Pavers will be measured on a square metre basis and shall be included in Item 4 Pre-Cast Concrete Pavers on Form B: Prices.

E15.3.6 Pre-Cast Concrete Pavers will be paid for at the Contract Unit Price for Item 4 Pre-Cast Concrete Pavers on Form B: Prices.

E16. PRE-CAST CONCRETE BLOCK WALL

E16.1 Description

E16.1.1 The specification shall cover the supply and installation of Pre-Cast concrete block retaining wall as shown on the Drawings and Specifications.

E16.1.2 Work shall include all labour, materials and equipment required for satisfactory completion of the Pre-Cast Concrete Block Seating Wall. Work includes, but is not limited to: excavation, compaction, adhesives, geotextile and granular.

E16.2 Materials

- E16.2.1 Wall blocks shall be Barkman Quarry Stone (standard units) or substitute approved in accordance with B7 Substitutes. Colour shall be Charcoal.
- E16.2.2 Capstone shall be Barkman 14" Roman Coping or substitute approved in accordance with B7 Substitutes. Colour shall be Sierra Grey.
- E16.2.3 Granular limestone base is to be crushed stone or gravel having hard angular particles, free from clay lumps, cementation, organic material, frozen material or other deleterious materials.
- E16.2.4 Geotextile shall be non-woven and installed as shown on the drawings. It shall have an apparent opening size of between 0.149 mm and .210 mm and a minimum unit weight of 135 grams per sq. m.
- E16.3 Construction Methods
- E16.3.1 The Contractor shall excavate for the base course, compact, install the geotextile, install the base granular and compact to 100% of proctor density.
- E16.3.2 The wall shall be then built in accordance with manufacturer's instructions.
- E16.3.3 Each wall courses shall be attached with continuous concrete adhesive. (mastic)
- E16.3.4 The capstone shall be attached to the top course with a **double bead** of continuous concrete adhesive. (mastic) Contract Administrator to approve mastic before application.
- E16.4 Method of Measurement and Basis of Payment
- E16.4.1 Pre-Cast Concrete Block Wall will be measured on a square metre basis (total square metres of wall face).
- (a) Block Wall with Cap shall be included in Item 5 Supply and Install Pre-Cast Concrete Block Wall with Cap on Form B: Prices.
- (b) Block Wall with No Cap shall be included in Item 6 Supply and Install Pre-Cast Concrete Block Wall with No Cap on Form B: Prices.
- E16.4.2 Pre-Cast Concrete Block Wall will be paid for at the Contract Unit Prices shown on Form B: Prices for Item 5 Supply and Install Pre-Cast Concrete Block Wall with Cap, and Item 6 Supply and Install Pre-Cast Concrete Block Wall with No Cap.

E17. LED SOLAR PAVER LIGHTS

E17.1 Description

- E17.1.1 This specification shall cover the supply and installation of fifty four (54) solar paver lights.
- E17.1.2 The Work to be done by the Contractor under this Specification shall include the furnishing of all superintendence, overhead, labour, materials, equipment, tools, supplies and all other things necessary for and incidental to the satisfactory performance and completion of all Work as shown on the Drawings and Specifications including , but not limited to:
- (a) Coring of pre-cast concrete paver(s), levelling of bedding sand and the supply and installation of solar paver lights for areas as indicated on the Drawings.

E17.2 Materials

- E17.2.1 All materials supplied under this specification shall be of a type approved by the Contract Administrator, and shall be subject to inspection and testing by the Contract Administrator.
- E17.2.2 Paver Light shall be:
- (a) LED Solar Paver Light Model SL6R– 106mm (4.17") diameter round x 70mm (2.75") tall. LED light to produce **Warm White** light x54.
- (i) Distributor/Supplier Contact for Solar Paver Lights:
Ross Christie

Solar Lighting Inc.
33 Second Avenue
La Salle, MB R0G 0A2
Tel: 204-736-2441
Email: info@solarlightinginc.com
Website: <http://www.solarlightinginc.com>

E17.3 Construction Methods

- (a) LED Solar Paver Lights to be installed once all paving stone installation has been completed and shall follow the layout of methods as described in the Drawings.
- (b) Use appropriately sized masonry drill bit to core out centre of 200mm x 200mm (8" x 8") paving stone.
- (c) Remove core and level out bedding sand by removing approximately 10mm of bedding sand.
- (d) Use either exterior grade silicone or polymeric sand as a means to secure LED Solar Paver Light firmly in place of pre-cast concrete paver.

E17.4 Method of Measurement and Basis of Payment

E17.5 Solar Paver Lights will be measured on a per unit basis and shall be included in Item 7, Supply and Install LED Solar Paver Lights on Form B: Prices.

E17.6 Solar Paver Lights will be paid for at the Contract Unit Price for Item 7, Supply and Install LED Solar Paver Lights on Form B: Prices.

E18. LIMESTONE BOULDERS

E18.1 Description

E18.1.1 This specification shall cover the supply and installation of two (2) limestone boulders as indicated on Drawings and Specifications.

E18.1.2 Work shall include all labour, equipment and materials required to supply and install the boulders, including but not limited to excavation, compaction, geotextile and granular.

E18.2 Materials

E18.2.1 Granular shall be 19mm diameter crushed limestone aggregate;

E18.2.2 Geotextile shall be non-woven and installed as shown on the drawings. It shall have an apparent opening size of between 0.149 mm and .210 mm and a minimum unit weight of 135 grams per sq. m.

E18.2.3 Limestone Blocks to be from a Manitoba quarry, colour to be approved by Contract Administrator. Rock shall have a fairly smooth top for and an approximate size range of:

Length: Approx. 900mm;

Width: Approx. 600mm;

Height: Approx. 500mm

E18.3 Construction Methods

E18.3.1 The Contractor shall excavate for the base course, compact, install the geotextile, install the base granular and compact to 100% of proctor density.

E18.3.2 Limestone Blocks shall be set on top of finished sub-base.

E18.4 Method of Measurement and Basis of Payment

E18.4.1 Limestone Boulders will be measured on a per item basis and shall be included in Item 8 Supply and Install Limestone Boulders on Form B: Prices.

E18.4.2 Limestone Boulders will be paid for at the Contract Unit Price for Item 8 Supply and Install Limestone Boulders on Form B: Prices.

E19. PROTECTIVE GLASS FENCING BARRIER

E19.1 Description

E19.1.1 Work shall include supply and installation of powder coated aluminum railing and posts with tempered glass inserts to form a protective fencing as shown on the Drawings and Specifications.

E19.1.2 Work shall include all labour, materials and equipment required for satisfactory completion of the Protective Glass Fencing Barrier.

E19.2 Materials

E19.2.1 All materials supplied under this specification shall be of a type approved by the Contract Administrator, and shall be subject to inspection and testing by the Contract Administrator

E19.2.2 Glass Fencing Barrier shall be: Falcon Patented Topless 10mm Glass Railing - 1067mm height (Falcon Railing Manufacturing Inc.), or substitute approved in accordance with B7 Substitutions.

- (a) Aluminum powder coat fencing posts, colour to be "Marble Slate", Falcon model numbers 010-42-SQIP (inline post), 010-42-SQEP (end post), 010-42-SQCP (corner post).
 - (i) Fence posts to have a thickness of 3.175mm (.125") thick and shall be dimensioned to 63.5mm x 63.5mm (2.5" x 2.5") x 1067mm (42") Height.
 - (ii) A 9.5 mm (3/8") thick by 114mm x 114mm (4.5" x 4.5") plate is attached to base of railing.
 - (iii) Note: Five (5) aluminum powder coat fencing posts will have custom brackets manufactured and attached for the installation of a bar top as per Drawings. Manufacturer to produce.
- (b) Glass to be 10mm tempered glass with polished edges. Custom cut to fit between each set of posts.
 - (i) Contractor to supply one (1) additional piece of 10 mm tempered glass, to be retained by the City as a replacement part. Glass piece shall be the same size as a standard section of the Glass Fencing Barrier. Confirm size to be provided with Contract Administrator.
- (c) Hardware: 9.5mm (3/8") dia. by 150mm (6") long Hilti concrete screws complete with neoprene rubber washers to be installed through plate and into concrete grade beam. Screws to be set in place with epoxy.
 - (i) Distributor/Supplier Contact for Protective Glass Fencing Barrier:
Dan Cosens
Prairie Accent Railing Company Ltd.
Box 620
Blumenort, MB R0A 0C0
Tel: 204-736-2441
Email: info@prairieaccent.com
Website: <http://www.prairieaccent.com>

E19.3 Construction Methods

- (a) All Work is to be located and installed in accordance with the Drawings and following manufacturer's instructions, using approved non-rusting, vandal resistant fasteners to ensure solid, durable, finished work suitable for the purpose intended. Fasteners and assembly hardware shall be incidental to the Work;

- (b) Fencing to be installed plumb and true to correct elevations and location, as directed by the Contract Administrator. The Contractor shall confirm proposed locations with Contract Administrator prior to installation;
- (c) Fencing to be carefully handled so that no parts will be bent, broken or otherwise damaged. Hammering is prohibited;
- (d) Install as per manufacturer's instructions.
- (e) Fencing posts shall be surface mounted onto concrete grade beam.
- (f) Contractor is responsible for and shall repair any damage done during construction.

Method of Measurement and Basis of Payment

- E19.3.1 Glass Fencing will be measured on a linear metre basis and shall be included in Item 9 Supply and Install Glass Fencing on Form B: Prices.
- E19.3.2 Glass Fencing will be paid for at the Contract Unit Price to Item 9 Supply and Install Glass Fencing on Form B: Prices.

E20. BAR TOP

E20.1 Description

- E20.1.1 Work shall include the supply and installation of five (5) linear meters of cedar lumber Bar Top.

E20.2 Materials

- E20.2.1 All materials supplied under this specification shall be of a type approved by the Contract Administrator, and shall be subject to inspection and testing by the Contract Administrator
- E20.2.2 Cedar lumber shall be 50mm x 304mm x 3048mm (2" x 12" x 10') x 2
- E20.2.3 Hardware: #10 42.5mm (1 5/8") cedar rated pan head wood screw w/ washer assembly (x34) to attach cedar lumber to aluminum post bracketing system

E20.3 Construction Methods

- (a) All Work is to be located and installed in accordance with the Drawings and Specifications, using approved non-rusting, vandal resistant fasteners to ensure solid, durable, finished work suitable for the purpose intended. Fasteners and assembly hardware shall be incidental to the Work.
- (b) Bar Top to be installed level and smooth front to back and side to side, with cedar lumber to be free of any checks, splits, bows, crooks, twists, warps and wane. Contract Administrator to approve cedar lumber.
- (c) Bar Top to be carefully installed so that no parts will be bent, broken or otherwise damaged. Hammering is prohibited.
- (d) Cedar lumber shall be surface mounted onto post bracketing system with appropriate hardware described above and on Detail Drawings.
- (e) Contractor shall repair any damage done during construction.
- (f) Cedar lumber shall be filleted and sanded smooth as per Drawings.

Method of Measurement and Basis of Payment

- E20.3.1 Bar Top will be measured on a lump sum basis and shall be included in Item 10 Supply and Install Bar Top on Form B: Prices.
- E20.3.2 Bar Top will be paid for at the Contract Unit Price to Item 10 Supply and Install Bar Top on Form B: Prices.

E21. SOIL AND SOD

E21.1 Description

E21.1.1 This Specification shall amend and supplement the most up to date revisions of City of Winnipeg Specifications CW 3510 and CW 3540.

E21.1.2 Work shall include The Contractor shall install mineral sod and a minimum 75 mm compacted thickness of topsoil, as required.

E21.1.3 The Contractor shall install topsoil and sod over all graded areas including; around the perimeter of newly constructed sitting area, pathways and re-graded area.

E21.1.4 Damaged areas: Restoration of damaged areas other than as outlined above shall be incidental to the Work. No separate payment shall be made. Restoration shall be achieved using topsoil and sod unless otherwise directed by the Contract Administrator.

E21.1.5 The thirty (30) day maintenance period for sod will not apply to this contract.

(a) Delete Items 9.7, 9.8 and 9.9 in CW 3510

(b) Revise Item 9.10 in CW 3510 to read:

The Contract Administrator will review the sod installation, and confirm that the following criteria has been met:

- i. The Work Site is clean and the sodded area is free of any visual obstructions such as leaves.
- ii. Written approval has been granted by the Contract Administrator to place sod if after September 15.
- iii. The nursery sod supplied meets the seed mixture requirement specified in Clause 5.3.
- iv. The sod is free of bare and dead spots and without more than 10 broadleaf weeds per 50 square metres.
- v. Sodded area has been rolled to form a firm, uniform even surface.
- vi. The height of the top growth of the sod is between 50 – 60 mm.
- vii. Sodded area is free of any turf damaging insects.

Any deficient, damaged or vandalized areas shall be resodded by the Contractor within three (3) Calendar Days after receiving notification from the Contract Administrator. The area shall be maintained until it meets the criteria above.

E21.2 Method of Measurement and Basis of Payment

E21.3 Soil and Sod will be measured on a square metre basis and shall be included in Item 11 Supply and Install Soil and Sod in Form B: Prices.

E21.4 Soil and Sod will be paid for at the Contract Unit Price for Item 11 Supply and Install Soil and Sod in Form B: Prices.