



**THE CITY OF WINNIPEG**

# **BID OPPORTUNITY**

**BID OPPORTUNITY NO. 703-2018**

**ST. JOHN'S PARK PATHWAY LIGHTING**

**Note to Bidders: Please be aware of revisions to B14.4**

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## **PART B - BIDDING PROCEDURES**

### **B1. CONTRACT TITLE**

B1.1 ST. JOHN'S PARK PATHWAY LIGHTING

### **B2. SUBMISSION DEADLINE**

B2.1 The Submission Deadline is 4:00 p.m. Winnipeg time, September 11, 2018.

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 9:30 am to 11:30 am on September 5, 2018 to provide Bidders access to the Site.

B3.2 The Bidder is advised that the site has restricted access and a viewing of the locations where decommissioning of the existing photo sensors and contactors will occur at St. John's Park at the time indicated above.

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.

B6.3 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/>

B6.4 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.

B6.5 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 B17.
- 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.
- 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.
- 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 If the Bid Submission is submitted by facsimile transmission, it shall be submitted to 204-949-1178.
- B8.6.1 The Bidder is advised that the City cannot take responsibility for the availability of the facsimile machine at any time.
- B8.7 Bidders are advised not to include any information/literature except as requested in accordance with B8.1.
- B8.8 Bidders are advised that inclusion of terms and conditions inconsistent with the Bid Opportunity document, including the General Conditions, will be evaluated in accordance with B17.1(a).

B8.8.1 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 11 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.

B10.1.1 Notwithstanding C12.2.3(c), prices on Form B: Prices shall not include the Manitoba Retail Sales Tax (MRST, also known as PST), which shall be extra where applicable.

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) Tri Star Electric Co Ltd
- (b) Global Electric Ltd
- (c) Alpine Electric 2003

B11.2.1 Cost estimates were provided for various portions of the work by the above noted companies.

## **B12. CONFLICT OF INTEREST AND GOOD FAITH**

B12.1 Bidders, by responding to this Bid Opportunity, declare that no Conflict of Interest currently exists, or is reasonably expected to exist in the future.

B12.2 Conflict of Interest means any situation or circumstance where a Bidder or employee of the Bidder proposed for the Work has:

- (a) other commitments;
- (b) relationships;
- (c) financial interests; or
- (d) involvement in ongoing litigation;

that could or would be seen to:

- (i) exercise an improper influence over the objective, unbiased and impartial exercise of the independent judgment of the City with respect to the evaluation of Bids or award of the Contract; or
  - (ii) compromise, impair or be incompatible with the effective performance of a Bidder's obligations under the Contract;
- (e) has contractual or other obligations to the City that could or would be seen to have been compromised or impaired as a result of its participation in the Bid Opportunity process or the Work; or
- (f) has knowledge of confidential information (other than confidential information disclosed by the City in the normal course of the Bid Opportunity process) of strategic and/or material relevance to the Bid Opportunity process or to the Work that is not available to other bidders and that could or would be seen to give that Bidder an unfair competitive advantage.

B12.3 In connection with its Bid, each entity identified in B12.2 shall:

- (a) avoid any perceived, potential or actual Conflict of Interest in relation to the procurement process and the Work;
- (b) upon discovering any perceived, potential or actual Conflict of Interest at any time during the Bid Opportunity process, promptly disclose a detailed description of the Conflict of Interest to the City in a written statement to the Contract Administrator; and
- (c) provide the City with the proposed means to avoid or mitigate, to the greatest extent practicable, any perceived, potential or actual Conflict of Interest and shall submit any additional information to the City that the City considers necessary to properly assess the perceived, potential or actual Conflict of Interest.

B12.4 Without limiting B12.3, the City may, in its sole discretion, waive any and all perceived, potential or actual Conflicts of Interest. The City's waiver may be based upon such terms and conditions



as the City, in its sole discretion, requires to satisfy itself that the Conflict of Interest has been appropriately avoided or mitigated, including requiring the Bidder to put into place such policies, procedures, measures and other safeguards as may be required by and be acceptable to the City, in its sole discretion, to avoid or mitigate the impact of such Conflict of Interest.

- B12.5 Without limiting B12.3, and in addition to all contractual or other rights or rights at law or in equity or legislation that may be available to the City, the City may, in its sole discretion:
- (a) disqualify a Bidder that fails to disclose a perceived, potential or actual Conflict of Interest of the Bidder or any of its employees proposed for the Work;
  - (b) require the removal or replacement of any employees proposed for the Work that has a perceived, actual or potential Conflict of Interest that the City, in its sole discretion, determines cannot be avoided or mitigated;
  - (c) disqualify a Bidder or employees proposed for the Work that fails to comply with any requirements prescribed by the City pursuant to B12.4 to avoid or mitigate a Conflict of Interest; and
  - (d) disqualify a Bidder if the Bidder, or one of its employees proposed for the Work, has a perceived, potential or actual Conflict of Interest that, in the City's sole discretion, cannot be avoided or mitigated, or otherwise resolved.
- B12.6 The final determination of whether a perceived, potential or actual Conflict of Interest exists shall be made by the City, in its sole discretion.

### **B13. QUALIFICATION**

- B13.1 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.
- B13.2 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>
- B13.3 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);
- B13.4 Further to B13.3(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/Subcontractor has a workplace safety and health program meeting the requirements of The Workplace Safety and Health Act (Manitoba), by providing:
- (a) Written confirmation of a safety and health certification meeting SAFE Work Manitoba's SAFE Work Certified Standard (e.g., COR™ and SECOR™) or

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

B13.5 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.

B13.6 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.

#### **B14. OPENING OF BIDS AND RELEASE OF INFORMATION**

B14.1 Bids will not be opened publicly.

B14.2 Following the submission deadline, the names of the Bidders and their Total Bid Prices (unevaluated, and pending review and verification of conformance with requirements) will be available on the Closed Bid Opportunities (or Public/Posted Opening & Award Results) page at The City of Winnipeg, Corporate Finance, Materials Management Division website at <http://www.winnipeg.ca/matmgt/bidopp.asp>

B14.3 After award of Contract, the name(s) of the successful Bidder(s), their address(es) and the Contract amount(s) will be available on the Closed Bid Opportunities (or Public/Posted Opening & Award Results) page at The City of Winnipeg, Corporate Finance, Materials Management Division website at <http://www.winnipeg.ca/matmgt/>

B14.4 The Bidder is advised that any information contained in any Bid may be released if required by The Freedom of Information and Protection of Privacy Act (Manitoba), by other authorities having jurisdiction, or by law or by City policy or procedures (which may include access by members of City Council).

B14.4.1 To the extent permitted, the City shall treat as confidential information, those aspects of a Bid Submission identified by the Bidder as such in accordance with and by reference to Part 2, Section 17 or Section 18 or Section 26 of The Freedom of Information and Protection of Privacy Act (Manitoba), as amended.

#### **B15. IRREVOCABLE BID**

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

B15.2 The acceptance by the City of any Bid shall not release the Bids of the next two lowest evaluated responsive Bidders and these Bidders shall be bound by their Bids on such Work for the time period specified in Paragraph 9 of Form A: Bid.

## **B16. WITHDRAWAL OF BIDS**

- B16.1 A Bidder may withdraw his/her Bid without penalty by giving written notice to the Manager of Materials at any time prior to the Submission Deadline.
- B16.1.1 Notwithstanding C23.3, the time and date of receipt of any notice withdrawing a Bid shall be the time and date of receipt as determined by the Manager of Materials.
- B16.1.2 The City will assume that any one of the contact persons named in Paragraph 3 of Form A: Bid or the Bidder's authorized representatives named in Paragraph 11 of Form A: Bid, and only such person, has authority to give notice of withdrawal.
- B16.1.3 If a Bidder gives notice of withdrawal prior to the Submission Deadline, the Manager of Materials will:
- (a) retain the Bid until after the Submission Deadline has elapsed;
  - (b) open the Bid to identify the contact person named in Paragraph 3 of Form A: Bid and the Bidder's authorized representatives named in Paragraph 11 of Form A: Bid; and
  - (c) if the notice has been given by any one of the persons specified in B16.1.3(b), declare the Bid withdrawn.
- B16.2 A Bidder who withdraws his/her Bid after the Submission Deadline but before his/her Bid has been released or has lapsed as provided for in B15.2 shall be liable for such damages as are imposed upon the Bidder by law and subject to such sanctions as the Chief Administrative Officer considers appropriate in the circumstances. The City, in such event, shall be entitled to all rights and remedies available to it at law.

## **B17. EVALUATION OF BIDS**

- B17.1 Award of the Contract shall be based on the following bid evaluation criteria:
- (a) compliance by the Bidder with the requirements of the Bid Opportunity or acceptable deviation there from (pass/fail);
  - (b) qualifications of the Bidder and the Subcontractors, if any, pursuant to B13 (pass/fail);
  - (c) Total Bid Price;
  - (d) economic analysis of any approved alternative pursuant to B7.
- B17.2 Further to B17.1(a), the Award Authority may reject a Bid as being non-responsive if the Bid is incomplete, obscure or conditional, or contains additions, deletions, alterations or other irregularities. The Award Authority may reject all or any part of any Bid, or waive technical requirements or minor informalities or irregularities, if the interests of the City so require.
- B17.3 Further to B17.1(b), the Award Authority shall reject any Bid submitted by a Bidder who does not demonstrate, in his/her Bid or in other information required to be submitted, that he/she is responsible and qualified.
- B17.4 Further to B17.1(c), the Total Bid Price shall be the sum of the quantities multiplied by the unit prices for each item shown on Form B: Prices.
- B17.4.1 Further to B17.1(a), in the event that a unit price is not provided on Form B: Prices, the City will determine the unit price by dividing the Amount (extended price) by the approximate quantity, for the purposes of evaluation and payment.

## **B18. AWARD OF CONTRACT**

- B18.1 The City will give notice of the award of the Contract or will give notice that no award will be made.

- B18.2 The City will have no obligation to award a Contract to a Bidder, even though one or all of the Bidders are determined to be responsible and qualified, and the Bids are determined to be responsive.
- B18.2.1 Without limiting the generality of B18.2, the City will have no obligation to award a Contract where:
- (a) the prices exceed the available City funds for the Work;
  - (b) the prices are materially in excess of the prices received for similar work in the past;
  - (c) the prices are materially in excess of the City's cost to perform the Work, or a significant portion thereof, with its own forces;
  - (d) only one Bid is received; or
  - (e) in the judgment of the Award Authority, the interests of the City would best be served by not awarding a Contract.
- B18.3 Where an award of Contract is made by the City, the award shall be made to the responsible and qualified Bidder submitting the lowest evaluated responsive Bid, in accordance with B17.
- B18.3.1 Following the award of contract, a Bidder will be provided with information related to the evaluation of his/her Bid upon written request to the Contract Administrator.
- B18.4 Notwithstanding C4, the City may issue a Purchase Order to the successful Bidder in lieu of the execution of a Contract.
- B18.5 The Contract, as defined in C1.1, in its entirety shall be deemed to be incorporated in and to form a part of the Purchase Order notwithstanding that it is not necessarily attached to or accompany said Purchase Order.

## PART C - GENERAL CONDITIONS

### C0. GENERAL CONDITIONS

- C0.1 The *General Conditions for Construction* (Revision 2006 12 15) are applicable to the Work of the Contract.
- C0.1.1 The *General Conditions for Construction* are available on the Information Connection page at The City of Winnipeg, Corporate Finance, Materials Management Division website at [http://www.winnipeg.ca/matmgt/gen\\_cond.stm](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 removal of existing and installation of new lighting for St. Johns Park and all associated works.

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

- (a) Supply and Installation of new concrete bases, poles and luminaires.
- (b) Supply and Installation of underground electrical cable required to power the new lights.
- (c) Supply and installation of distribution enclosure on a concrete foundation.
- (d) Removal of existing lighting including poles, luminaires and bases.
- (e) Decommissioning of existing photo sensors and contactors.
- (f) Pathway removal and associated restoration.
- (g) Site cleanup and sod restoration

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

D3.1 The Contract Administrator is:

Steven Repa  
Technologist II City of Winnipeg  
Urban Design Division  
Planning, Property & Development

Telephone No. 204-451-2723  
Email Address srepa@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.

#### **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 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:
- The City of Winnipeg  
Attn: Chief Financial Officer  
Office of the Chief Administrative Officer  
Susan A. Thompson Building  
2nd Floor, 510 Main Street  
Winnipeg MB R3B 1B9
- 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
- D6.1 Bids Submissions must not be submitted to the above facsimile number. Bids must be submitted in accordance with B8.**

## **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 but in no event later than the date specified in C4.1 for the return of the executed Contract.

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

(a) a Gantt chart for the Work based on the C.P.M. schedule;

D12.3 Further to D12.2, the schedule shall clearly identify the start and completion dates of all of the following activities/tasks making up the Work:

(a) Commencement date

(b) Installation of new concrete bases.

(c) Installation of new poles & luminaires

(d) Installation of underground cable to power new lights.

(e) Installation of distribution enclosure.

(f) Removal of existing bases, poles & luminaires

(g) Decommissioning of existing photo sensors and contactors

(h) Restoration of pathways (if required due to trenching)

(i) Substantial completion

(j) Restoration of Sod

(k) Total Performance

**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.

**D14. SUBSTANTIAL PERFORMANCE**

- D14.1 The Contractor shall achieve Substantial Performance within twenty (20) 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 twenty five (25) 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 five hundred dollars (\$500) 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 The Contractor shall perform the following scheduled maintenance in the manner and within the time periods required by the Specifications:
  - (a) Soil and Sod as specified in E10

## **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 B13.4, 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 B13.4.

### **D21. PLANT AND MATERIALS**

- D21.1 Plant and Material that is the property of the City shall not be removed from the Site, disposed of or used except for the purposes of the Work without the prior consent of the Contract Administrator.

### **D22. SAFETY**

- D22.1 Further to C6, the Contractor shall be solely responsible for safety at the Site and for compliance with all laws, rules, regulations and practices required by the applicable safety legislation.
- D22.2 The Contractor shall be solely responsible for securing the Site, and any existing facility thereon, and for the proper care and protection of the Work already performed.
- D22.3 The Contractor shall do whatever is necessary to ensure that:
- (a) no person, property, right, easement or privilege is injured, damaged or infringed by reason of the Contractor's activities in performing the Work;
  - (b) the health and safety of all persons employed in the performance of the Work or otherwise is not endangered by the method or means of its performance;
  - (c) adequate medical services are available to all persons employed on the Work and at all times during the performance of the Work;
  - (d) adequate sanitation measures are taken and facilities provided with respect to the Work;
  - (e) pedestrian and other traffic on any public or private road or waterway is not unduly impeded, interrupted or endangered by the performance or existence of the Work or Plant;
  - (f) fire hazards in or about the Work are eliminated.

**D23. SITE CLEANING**

- D23.1 The Contractor shall maintain the Site and the Work in a tidy condition and free from the accumulation of waste and debris, other than that caused by the City or by other contractors.
- D23.2 As the Work progresses, the Contractor shall remove any Plant and Material not required for the performance of the remaining Work. He shall also remove waste and debris other than that caused by the City or other contractors, and leave the Site and the Work clean and suitable for occupancy by the City unless otherwise specified.
- D23.3 **Total Performance shall not be considered to have been achieved until the Contractor has cleaned up the Site and has removed all Plant, surplus Material, waste and debris, other than that left by the City or other contractors.**

**D24. INSPECTION**

- D24.1 Before beginning or resuming operations upon any portion of the Work, the Contractor shall notify the Contract Administrator so as to enable him to arrange for inspection. If the Contractor fails to notify the Contract Administrator, the Contractor shall, if and when required by the Contract Administrator, forthwith take down or expose and redo that portion of the Work required to facilitate inspection. The cost of such taking down or exposure, and redoing, if any, shall be borne by the Contractor.
- D24.2 If and when required by the Contract Administrator, the Contractor shall take down or expose forthwith any portion of the Work where the Contract Administrator determines that the Work is not in accordance with the Contract. The cost of such taking down or exposure, and redoing, if any, shall fall upon the City if the taking down or exposure indicates that the portion exposed was properly performed, but if otherwise the cost shall be borne by the Contractor.

**D25. DEFICIENCIES**

- D25.1 Further to C11, the Contract Administrator may order the Contractor to alter or improve his methods, to increase or improve his Plant, to furnish additional or more suitable Material, or to employ additional or more qualified labour if, at any time, the Contract Administrator determines that:
- (a) the Work is not being, or will likely not be, performed satisfactorily; or
  - (b) progress is not being, or will likely not be, maintained in accordance with the work schedule.

**D26. PAYMENT**

- D26.1 Further to C12, the City may at its option pay the Contractor by direct deposit to the Contractor's banking institution.

**WARRANTY**

**D27. WARRANTY**

- D27.1 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. 703-2018

ST. JOHN'S PARK PATHWAY LIGHTING

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. 703-2018  
ST. JOHN'S PARK PATHWAY LIGHTING

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>
S.13 – S	Existing Conditions and Removals
S.13 - T	Proposed Lighting
S.13 - U	Details

#### 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.
- E2.2 A pre and post construction test of the irrigation system shall be completed in the presence of the contractor and the contract administrator. Any damage noted at the post construction test shall be repaired by personnel certified to complete the work and be completed at the cost of the contractor.

#### 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'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 Contractor shall comply with all laws, ordinances, rules and regulations that would relate to the Work.

- E4.3 All notices, consents, approvals, statements, authorizations, documents or other communications to the City shall be submitted to the Contract Administrator.
- E4.4 All Work shall be performed in compliance with the Manitoba Workplace Health and Safety Act.
- E4.5 All Work shall be performed in compliance with the Manitoba Workplace Health and Safety Fall Protection guidelines.
- E4.6 The Contractor and Sub-contractors must be fully aware of all Work involving hazardous materials. All Work must be performed in compliance with the Manitoba Department of Labour Workplace Health and Safety Guidelines and all other applicable codes. The Contractor is responsible for the immediate notification to the Contract Administrator of his/her encountering of suspected hazardous material during their course of Work.

## **E5. PROTECTION OF EXISTING TREES**

- E5.1 The Contractor shall take the following precautionary steps to prevent damage from construction activities to existing trees within the limits of the construction area. If you require further information on these specifications, please contact the City of Winnipeg Forestry Branch at 986-2004:
  - E5.1.1 For trees greater than 100 mm in diameter, attach wood strapping material having a minimum thickness of 25 millimetres and minimum length of 2440 millimetres around tree trunks in a manner that will not harm the trees. Do not use nails or other fasteners that penetrate into trees. The width of strapping should suit the size of the tree being protected. Length of strapping may be reduced to suit tree being protected as approved by the Contract Administrator.
  - E5.1.2 For trees less than 100 mm in diameter, install snow fencing around the tree to a 2.0 meter radius complete with installation hardware. The 2.0 meter radius of the snow fencing may be reduced to suit the tree being protected as approved by the Contract Administrator.
  - E5.1.3 Operation of equipment within the dripline of the trees shall be kept to the minimum required to perform the work. Equipment shall not be parked, repaired, refueled; construction materials shall not be stored, and earth materials shall not be stockpiled within the driplines of the trees. The dripline 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.
  - E5.1.4 Repair, replace and maintain tree protection material during construction of the Work.
  - E5.1.5 Remove snow fencing and strapping material without harming trees as soon as the construction and restoration work is complete.
- E5.2 Obtain approval from the Contract Administrator to excavate within 2.0 meters of a tree.
- E5.3 Excavate in a manner to minimize damage to root systems. Keep exposed roots in excavations and trenches moist or shaded.
- E5.4 Prune exposed roots with equipment such as trenchers, chain saws, root cutters or other methods acceptable to the Contract Administrator in a manner that will leave a neat, clean root end.
- E5.5 Take precautions to ensure tree limbs overhanging the Site are not damaged by construction equipment. Contact the Forestry Branch for consultation on pruning of overhanging or damaged limbs and branches and other unanticipated problems with trees during construction of the Works.
- E5.6 American elm trees are not to be pruned between April 1<sup>st</sup> and August 1<sup>st</sup> and Siberian elm trees between April 1<sup>st</sup> and July 1<sup>st</sup> of any year under provisions of The Dutch Elm Disease Act.

- E5.7 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 Forestry Branch. Damages must be repaired by an individual with a Manitoba Arborist licence or by the Forestry Branch.
- E5.8 The Forestry Branch will remove and replace any trees deemed to have died or that are dying due to damage from carelessness during construction. Removal and replacement costs will be determined by size, market price of the largest transplantable tree of same or different species and may include appraised value of existing tree as determined by current International Society of Arboriculture evaluation procedure presently used by Forestry Branch in conjunction with City Claims Branch. Estimated replacement cost of a 250 and 600 millimetre diameter American elm on a boulevard based on an appraised value is approximately \$4,700.00 and \$27,000.00 respectively.
- E5.9 No separate measurement or payment will be made for the protection of trees.

## **E6. PROTECTION OF THE SURVEY EQUIPMENT**

- E6.1 Notwithstanding clause 4 "Persons and municipalities to protect Outline Monuments"; under [The Surveys Act](#), of Manitoba, the Contractor shall be responsible to protect the Survey Infrastructure from damage as a result of the Work.
- E6.2 Further to C:6.26 (g), at least 72 hours prior to the commencement of the On-Site Work the Contractor shall contact the City of Winnipeg, Geomatics Services Branch at 918-1360 (8:00 am to 4:00 pm Monday to Friday excluding holidays) to obtain underground clearance. Geomatics Services will locate and mark all known outline survey monuments and geodetic control monuments and confirm the physical condition of those monuments upon completion of construction, at no cost to the Contractor.
- E6.3 Where a survey post, bar or control monument lies in the line of the proposed Work and must be disturbed, the Contractor shall provide the Contract Administrator with 48 hours notice to permit referencing for future replacement, at no cost to the Contractor. Failure to provide the specified notice shall result in the Contractor paying for all costs associated with replacing or relocating the disturbed outline survey monuments and geodetic control monuments.
- E6.4 Survey monuments and geodetic control monuments at or adjacent to the Site, not in the line of the proposed construction that are damaged or disturbed by the Contractor shall be replaced or relocated by the City or its agent and all associated costs shall be paid for by the Contractor. An approximate estimate of the costs involved to restore a legal survey monument is \$1,000 per bar and \$3,000 per control monument. Contractors must ensure their landscaping and other subcontractors are aware of this clearance procedure and the potential restoration costs.
- E6.5 Where possible, amounts owed to the City in accordance with the above will be deducted from any payments to be made by the City to the Contractor.

## **E7. Pedestrian Safety And Traffic Management**

- E7.1 Further to CW 1130 the Contractor shall take such measures as are necessary to ensure safe and convenient pedestrian ingress and egress is maintained to private properties while he 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.
- E7.2 Ambulance/ Emergency vehicle access must be maintained at all times.

## **E8. SITE ENCLOSURES**

- E8.1 Temporary Site enclosures, as determined necessary at the pre-construction meeting, shall be erected and maintained as required for the duration of the construction period.
- E8.2 Site enclosures shall be considered incidental to the Contract Work.

## **E9. SITE LIGHTING**

### E9.1 Description

E9.1.1 This specification shall cover the furnishing of labour, new material, equipment and services necessary for the complete installation of Site Lighting and removal of the existing lighting bases, distribution panel base, and removal/abandonment of replaced lighting components as shown on the drawings.

E9.1.2 The major components of the work involved are, but not limited to are:

- (a) Installation of conduit & electrical wiring/cable;
- (b) Pole Installation including concrete base foundation;
- (c) Luminaire, mounting, attachments and lamps;
- (d) Removal of the existing lighting and distribution panel base;
- (e) Decommissioning of two (2) existing photo sensors, two (2) contactors and associated wiring;
- (f) Electrical distribution panel installation including concrete foundation; and,
- (g) Connection to existing power supply.

### E9.2 General

E9.2.1 Electrical Contractor is to provide CSA approved wiring in accordance with the Canadian Electrical Code.

E9.2.2 Electrical installation shall be done in accordance with the current edition of the Canadian Electrical Code, Provincial, and Municipal and other codes and regulations. Municipal and Provincial codes and regulations will take precedence over all other codes.

E9.2.3 Grounding shall be done in accordance with the latest edition of the Canadian Electrical Code.

E9.2.4 **The Contractor shall prepare and submit to the proper Authorities Having Jurisdiction all necessary permits and pay all permit fees.**

E9.2.5 **Upon completion of Site Lighting work, and before final payment is made, the Contractor shall submit a Certificate of Approval to the Contract Administrator from the Authorities Having Jurisdiction verifying that all electrical work has been inspected and approved.**

E9.2.6 The Electrical Contractor shall guarantee the satisfactory operation of all work and apparatus included and installed under this section of the Specification for a period of twelve (12) months.

E9.2.7 Install designatory lettering on all electrical equipment.

E9.2.8 Fixtures are to be installed as per manufacturer's written specifications.

### E9.3 Materials

E9.3.1 The Contractor shall supply and install site lighting as shown on the Construction Drawings and according to specifications listed below.

#### E9.3.2 Conduit

- (a) If directional boring Cable shall be in 68 mm poly-ethylene conduit suitable for outdoor and underground electrical applications the contractor shall confirm that conduit used for boring can couple to the conduit exiting the pre-cast pile.

#### E9.3.3 Wire and Cable

- (a) Wire and cable shall be copper of standard AWG sizes with 600V (90 Degree C) insulation. Insulation shall be X-Link Polyethylene unless otherwise noted on Drawings or prohibited by regulations. Aluminum conductors will not be accepted.

Minimum wire size shall be #8 CU and underground splicing of wire will not be permitted.

#### E9.3.4 Light Pole

- (a) The light poles shall be 4.6m (15') high, aluminum or galvanized steel and powder coated same colour as the luminaire. Pole shall meet latest CAN/CSA or AASHTO design code, welding to meet CSA W59.
- (b) The light pole shall come with a decorative base that matches the aesthetic of the Granville II or approved equivalent luminaire. Decorative base to be powder coated to match colour of pole and luminaire.
- (c) Contractor shall be responsible for ensuring that light pole and decorative base components are compatible with anchor bolt projections, spacing and concrete base diameter.

#### E9.3.5 Luminaire

- (a) Manufacturer: Holophane
- (b) Model: Granville II LED Classic Standard
- (c) Product Codes: GVD2 P30 30K AS 3 N & GVD2 P40 30K AS 5 N
- (d) Or approved substitution in accordance with B7. Any proposed substitutes must be on the approved products list for Manitoba Hydro's commercial Power Smart Program.
- (e) A digital drawing of (S.13-T) along with the luminaire locations will be made available upon award to the contractor. Lighting layouts will be checked using the latest version of AGI32 lighting software. The Contractor will need to meet with the City of Winnipeg's electrical department and C.A. after the start-up meeting to accurately determine the cable locations.
- (f) The following light loss factors are to be used:

(i) LLF	0.9
(ii) Mounting Height	4.5 meters (15 Feet)
(iii) Spacing	33-60 meters
(iv) Average lighting levels to be minimum	4 lux
(v) Average to Min	4.0-1
(vi) CCT	30K
- (g) Luminaire to be single piece die cast aluminum, modular design for ease of maintenance. Housing to be minimum IP65, EPA to be  $\leq 0.8$ . Finish to be zinc-infused TGIC thermoset powder coat to a minimum 3 mil thickness.
- (h) Luminaire to be CSA certified and rated for  $-40^{\circ}\text{C}$  minimum ambient temperature. Luminaire to be complete with minimum 5 year fixture warranty.
- (i) Driver to have PF > 90%, THD < 20%.
- (j) Surge Suppression to be easily serviceable and must meet or exceed Cat C Low (IEEE C62.41.2).

#### E9.3.6 Precast Concrete Bases

- (a) See Detail CK15-6M (REV 09) for pre-cast pile material requirements.

#### E9.3.7 Distribution Enclosure and Concrete Foundation

- (a) Contractor shall provide Nema 3R lockable enclosure for distribution components or approved substitution in accordance with B7.
- (b) All breakers, contactor and switch to be labelled as to their function.
- (c) Main Breaker to be 100 Amp and lockable in the "off" position
- (d) Provide 1.2 meter length of 41mm rigid steel conduit and attach to enclosure. Install photocell at top of conduit complete wire guard.

- (e) Supply concrete for foundation in accordance with CW 2160, Table CW 2160.1 Design Requirements for Concrete Used for Underground Structures, for Type A Structures (monolithic sewers and reinforced structures)

#### E9.4 Construction Methods

##### E9.4.1 Removal of Concrete Bases (Existing Lighting and Distribution Panel)

- (a) Removal to occur after the complete installation of the new park lighting, existing lighting to remain operational throughout construction period.
- (b) Confirm power source for light and distribution panel has been disconnected and obtain permission of contract administrator prior to removal of concrete base.
- (c) Remove pole and luminaire from existing bases and abandon any wiring prior to removal of the concrete base.
- (d) Remove or abandon existing bases as shown on the Drawings or as directed by the Contract Administrator.
- (e) Remove bases by pulling out of the ground or abandon by breaking up the base to a minimum depth of one metre (1 m) below grade and backfilling with Type 2 Backfill – (20 mm down crushed limestone) conforming to the requirements of Table CW 2030.1. Place 300 mm of suitable excavated material compacted to 95% SPD as a cap over the granular backfill. Restore with topsoil and sod as per E10.
- (f) The Contractor shall load and haul all removed materials from the site and dispose of these materials at dumps located by the Contractor and approved by the Contract Administrator.

##### E9.4.2 Decommission Site Lighting Components at Existing Distribution Panels

- (a) Decommissioning to occur after the complete installation of the new park lighting, existing lighting to remain operational throughout construction period.
- (b) Contractor shall remove existing photo cells from the exterior of the buildings, all associated wiring and seal any exterior penetrations.
- (c) Remove existing contactors, breakers which powered existing lighting, provide junction boxes where needed to extend existing cables and as indicated on the drawing (S.13-S)
- (d) The Contractor shall load and haul all materials from the site and dispose of these materials at dumps located by the Contractor and approved by the Contract Administrator. No separate measurement or payment will be made for disposal of materials, disposal of materials will be considered incidental to the cost of decommissioning site lighting components.

##### E9.4.3 Installation of Cable and Conduit (Trenched or Directionally Bored)

- (a) Depth of conduit to be minimum 450mm as per code.
- (b) Provide minimum 6" sand above and below cable when trenching. Provide weatherproof planking's above sand..
- (c) Maintain accurate locations of trenching or boring for inclusion on as-built drawings
- (d) When directional boring Install conduits so that in no cases shall the conduit be formed into a bend radius of less than 500 millimetres.
- (e) Install conduit either by directional boring or open trenching, subject to the following conditions:
  - (i) Install all conduit by directional boring under paved pathway surfaces.
  - (ii) Open cut to facilitate pushing operations only at termination locations or where required by outside utilities, or as directed by the Contract Administrator.
- (f) Open trench as directed by the Contract Administrator. The width of the trench shall be 200mm maximum, or in accordance with the drawings.

- (g) Effort shall be made to limit the amount of joints in a conduit all conduit joints shall be as per SD-340.
- (h) Contractor shall coordinate trenching with Contract Administrator and shall provide soil compaction to 95% Standard Proctor Density. No unsuitable excavated materials shall be placed in the trench including but not limited to topsoil, organic material, silts, roots and stones over 2" or debris. Re-sod as required to return area to original condition.
- (i) Contractor shall dispose of any unsuitable excavated material off site. 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.
- (j) The Contractor shall inform the Contract Administrator to verify locations and witness processes. The Contractor to also inform the Contract Administrator at least five days in advance of the installation of electrical cable to allow the Contract Administrator to witness the process.

#### E9.4.4 Concrete Base

- (a) The handling and storing of precast concrete piles shall be done in a careful manner to avoid damaging the piles. Concrete piles shall be lifted at designated lift points.
- (b) Excavation for bases shall be done by augering to dimensions shown.
  - (i) Hole diameter for pile shall be 600 mm.
  - (ii) Pile shall be set centered and vertically plumb in augered hole on 150 mm bed of compacted 19 mm down crushed limestone. Piles shall not be more than 2% out-of-plumb
- (c) The precast concrete base shall be installed not later than 24 hours after augering has been completed.
- (d) Backfill shall be 19 mm down crushed limestone tamped in max lifts of 150 mm.
- (e) The contractor shall ensure anchor bolts are galvanized steel and shall confirm pole, base and bolt circle diameter shall correctly fit together prior to ordering and placing pre-cast concrete bases.

#### E9.5 As-Built Drawings

##### **E9.5.1 Contractor to provide As-Built drawings showing locations of installed wire and cable to the Contract Administrator before Total Performance is achieved.**

#### E9.6 Method of Measurement and Basis of Payment

##### E9.6.1 Method of Measurement Shall be as follows:

- (a) The removal of concrete bases for existing lights and distribution panel will be measured on a per unit basis for, "Remove Existing Bases (Including Poles and Luminaires)" on Form:B Prices; and
- (b) The supply and installation of the light fixtures and bases will be measured on a per unit basis for, "Supply and Install Poles, luminaires and Concrete Bases" on Form:B Prices; and,
- (c) The supply and installation of all cable, required copper wire to power lights by trenching or by directional boring will be measured on a linear meter basis for "Supply and Install Electrical Cable" on Form B: Prices; and,
- (d) The decommissioning of site lighting components at existing distribution panels will be measured on a per unit basis for "Decommission Site Lighting Components at Existing Distribution Panels (Photo Cell, Contactor and Wiring)" on Form:B Prices; and,
- (e) No separate measurement will be made for the production of As-Built drawings as this item is incidental to the work herein.
- (f) No separate payment will be made for the disposal of materials from site as this shall be considered incidental to the work herein.



**E9.6.2 Basis of Payment Shall be as follows:**

- (a) The removal of concrete bases for existing lights and distribution panel will be paid for at the contract unit price for "Remove Existing Bases (Including Poles and Luminaires)". Price which work shall include the removal or abandonment of the existing bases, including the removal of the existing poles and luminaires and the disposal of all removed materials off site and performing all operations herein described and for all other items incidental to the work included in this Specification.
- (b) The supply and Installation of all electrical cable shall be paid for at the contract unit price for "Supply and Install Electrical Cable". Price which work shall include, supply of all materials, excavation, conduit and cable installation, wiring, backfilling and performing all operations herein described and for all other items incidental to the work included in this Specification.
- (c) The supply and installation of the light fixtures and concrete bases shall be paid for at the contract unit price for "Supply and Install Poles, luminaires and Concrete Bases" price which work shall include the installation of; the luminaire, light standard, concrete base, base plate, anchor bolts, all fasteners and applicable electrical work. Price shall be payment in full for supply of all materials and performing all operations herein described and for all other items incidental to the work included in this Specification.
  - (i) Co-ordination with City of Winnipeg and Manitoba Hydro for hooking up to Manitoba Hydro power supply. Supply of all materials and performing all operations herein described and for all other items incidental to the work included in this Specification.
- (d) The decommissioning of site lighting components at existing distribution panels will be paid for at the contract unit price for "Decommission Site Lighting Components at Existing Distribution Panels (Photo Cell, Contactor and Wiring)" Price which work shall include the removal of existing components, associated wiring, disposal off site and performing all operations herein described and for all other items incidental to the work included in this Specification.
- (e) No additional payment shall be made for the production of As-Built drawings as this item is incidental to the work herein.

**E10. SOD RESTORATION**

**E10.1 Description**

E10.1.1 This Specification shall amend and supplement the most up to date revisions of City of Winnipeg Specifications CW 3510, CW 3520 and CW 3540. The Contractor shall install mineral sod and a minimum 75mm compacted thickness of topsoil, as required.

**E10.2 Materials**

E10.2.1 All materials supplied under this specification shall be as per CW 3510, CW 3520 and CW 3540, and SD-243.

**E10.3 Construction Methods**

E10.3.1 The Contractor shall install topsoil and sod over all trenched areas and disturbed areas directly adjacent to light installations or pathway restorations.

E10.3.2 Areas to be sodded are to be laid out on Site and approved by the Contract Administrator before commencing Work. Work outside the limit approved by the Contract Administrator will not be measured and will not be paid for under this section but considered incidental to the Work. Such incidental items that will not be measured include but are not limited to topsoil and sod placed in areas utilized as access into the site and areas in between lighting installation. Incidental Site restoration shall conform to the same Specifications.

- E10.3.3 Where new sod will meet existing, employ a vertical shearing operation, such as using a sharp spade or edger, along the outside edges of the excavation to create a clean and definite line for the new sod to abut flush to.
- E10.3.4 Restoration shall be achieved using topsoil and sod unless otherwise directed by the Contract Administrator.
- E10.3.5 Thirty (30) day maintenance period on sod will commence at **Total Performance** and acceptance.
- E10.3.6 Any damaged asphalt due to placing/stockpiling soil on newly placed asphalt shall be replaced at the Contractors expense.
- E10.4 Method of Measurement and Basis of Payment
- E10.4.1 Method of Measurement shall be as follows:
- (a) Sodding will be measured on a square metre basis for:
    - (i) "Sod Restoration" on Form B: Prices.
    - (ii) No separate measurement will be made for top soil and sod placed in areas outside of approved limits, placement of sod outside of approved limits will be considered as "site cleanup" and will be considered incidental.
- E10.4.2 Basis of Payment shall be as follows:
- (a) Sod Restoration will be paid for at the Contract Unit Prices. The amount to be paid for shall be the total number of units, as measured and accepted by the contract administrator. 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.
  - (b) No additional payment will be made for top soil and sod placed in areas outside of approved limits. Placement of sod outside of approved limits will be considered as "site cleanup" and will be considered incidental.

## **E11. PATHWAY REMOVAL AND RESTORATION**

### **E11.1 Description**

- (a) This Specification shall be done in accordance with the City of Winnipeg's Standard Construction Specifications CW 3110, CW 3130, CW3410, SD 228-A, and the City of Winnipeg's Standard Construction Drawings SCD-646 and SCD-648. The Work to be done by the Contractor under this Specification shall cover all phases of supply and placement of sub base, base course, geotextile and asphalt surfacing necessary to install and restore the existing Asphalt Path disturbed by trenching; and
- (b) This specification shall amend and supplement CW 3110 and CW 3170. It shall cover the removal of existing asphalt and the excavation and legal disposal of existing paths.

### **E11.2 Removal & Excavation of Asphalt Pathway**

#### **E11.2.1 Construction Methods**

- (a) All asphalt to be removed shall be neatly saw cut full depth along straight lines. Only remove pavement to extent that is necessary to allow for the sufficient trenching of electrical cable. Contractor shall by any means necessary prevent damage to existing asphalt beyond the limit of the saw cut.
- (b) Excavation includes the removal of items (i.e., sand, earth) 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.
  - (i) 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.

- (ii) Excavation should be coordinated with the installation of lighting cable so as not to leave an open excavation area subject to ponding water.
- (iii) Excavate to the limits shown and as necessary to achieve finish grades as indicated on the Drawings or as directed in the field:
- (iv) Any damage to the existing asphalt pathways outside the limit of trenching shall be repaired by the contractor at no additional cost to the contract.

### E11.3 Restoration of Asphalt Pathway

#### E11.3.1 Materials

- (a) The materials of the Asphalt Path shall be as per Drawing SCD-648. "Parkway Path Asphalt", and shall be done in accordance with City of Winnipeg's Standard Construction Specifications CW 3110 – "Sub-Grade, Sub-Base and Base Course Construction"; CW3130 – "Supply & Installation of Geotextile Fabric"; and CW3410 – "Asphaltic Concrete Pavement Works".

#### E11.3.2 Construction Method

- (a) The work included in the establishment of the Asphalt Path shall include:
- (b) New restorative Asphalt Path shall be installed in the same location as existing path.
- (c) All granular base course shall be placed and compacted to the finished thickness as specified on the drawings.
- (d) If any pavement exists at the limits of the designated area of removal, these shall be saw cut for the full depth of the pavement prior to the demolition and removal operations. All costs in connection with saw cutting are incidental and shall be included in the unit price bid for excavation.
- (e) All excavated material shall be removed, hauled and disposed of off-site to the satisfaction of the Contract Administrator.

#### E11.3.3 Sub-base Compaction

- (a) Description
  - (i) Sub grade compaction shall be done in accordance with City of Winnipeg's Standard Construction Specification CW 3110 – "Sub-Grade, Sub-Base and Base Course Construction".
- (b) Construction Methods
  - (i) Sub-grade compaction shall be performed as outlined in CW 3110 item 3.3 "Preparation of Sub-Grade and Placement of Sub-Base Material".
  - (ii) Sub-grade shall be free of any fibrous organics, softened and disturbed soil. The prepared sub-grade shall be proof rolled and inspected by the Contract Administrator to detect for any soft spots prior to the placement of overlying granular fills.

#### E11.3.4 Geotextile Fabric

- (a) Description
  - (i) Geotextile Fabric shall be placed in accordance with City of Winnipeg's Standard Construction Specification CW 3130 "Supply and Installation of Geotextile Fabrics".
- (b) Materials
  - (i) The separation/ reinforcement geotextile fabric shall be non-woven and shall conform to the Products Approved as listed in City of Winnipeg Specification for Approved Products for Surface Works.
- (c) Construction Methods
  - (i) Separation/ Reinforcement geotextile fabric shall be installed as outlined in CW 3110 item 3.1 "Separation/Reinforcement Geotextile Fabric".

#### E11.3.5 Crushed Limestone Sub-base Course Material

- (a) Description
  - (i) Crushed limestone sub-base material shall be supplied and installed in accordance with City of Winnipeg's Standard Construction Specification CW 3110 "Sub-Grade, Sub-Base and Base Course Construction".
- (b) Materials
  - (i) Sub-base: 50mm (2") down crushed limestone as per Drawing SCD-648.
- (c) Construction Methods
  - (i) Crushed limestone sub-base material shall be supplied and installed as outlined in CW 3110 item 3.4 "Placement of Sub-Base Material with Geotextile Fabric".
  - (ii) All limestone sub-base material shall be placed and compacted as specified to a finished thickness as shown on the drawings.

#### E11.3.6 Crushed Limestone Base Course Material

- (a) Description
  - (i) Crushed limestone base material shall be supplied and installed in accordance with City of Winnipeg's Standard Construction Specification CW 3110 "Sub-Grade, Sub-Base and Base Course Construction".
- (b) Materials
  - (i) Base course material shall be 20mm (3/4") down crushed limestone.
- (c) Construction Methods
  - (i) Crushed limestone base course material shall be supplied and installed as outlined in CW 3110 item 3.6 "Placement of Base Course Material".
  - (ii) All limestone base course material shall be placed and compacted as specified to finished thickness as per specifications and as shown on the drawings.

#### E11.3.7 Asphaltic Pavement

- (a) Description
  - (i) Asphaltic Concrete shall be supplied and installed in accordance with City of Winnipeg Standard Construction Specification CW 3410 "Asphaltic Concrete Pavement Works".
- (b) Materials
  - (i) Asphaltic Concrete shall be Type 1A as specified and to a thickness of 75mm (3") as shown on the Drawings.
- (c) Construction Methods
  - (i) Asphaltic Concrete shall be supplied and installed in accordance with the lines, grades and thickness shown on the Drawings and to City of Winnipeg Construction Specification CW 3410. Asphalt shall be placed in one lift.
  - (ii) Crack Sealing
    - ◆ As a warranty requirement, the Contractor shall rout and seal any and all cracks which may appear during the one-year warranty period. Crack sealing shall conform to the requirements of City of Winnipeg Standard Construction CW 3250.
    - ◆ No separate payment will be made for this item as it is considered a warranty issue and shall fall under G.C.13- Warranty.
- (d) Quality Control for Hard Surfaced Areas
  - (i) Further to Section 10, Quality Control, of CW 3110 and CW 3410, the Contract Administrator may obtain a qualified independent testing lab to conduct tests on materials to determine the acceptability of the sub-grade, sub-base, base course and asphaltic concrete as placed by the Contractor in accordance with the requirements of this Specification.

- (ii) The Contractor shall not proceed with each granular fill placement or asphalt installation until test results have been reviewed and approval to proceed is granted by the Contract Administrator.
- (iii) The Contract Administrator will conduct a survey of the operation to verify installation of specified layer thickness.
- (iv) Non-conformity with the specified test requirements or compacted layer thickness will constitute sufficient grounds for rejection of the Work.

#### E11.4 Method of Measurement and Basis of Payment

##### E11.4.1 Method of Measurement shall be as follows:

- (a) All Path Removals & Restoration shall be measured on a square meter basis for "Path Restoration"

E11.4.2 Basis of Payment shall be as follows: Path Removal and Restoration will be paid for at the Contract Unit Prices. The amount to be paid for shall be the total number of square meters removed and restored in accordance with this Specification and as measured, in the field and accepted by the contract administrator. 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.