



THE CITY OF WINNIPEG

BID OPPORTUNITY

BID OPPORTUNITY NO. 194-2017

**INSTALLATION OF UNDERGROUND TRAFFIC SIGNALS SERVICES &
ASSOCIATED WORKS**

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PART B - BIDDING PROCEDURES

B1. CONTRACT TITLE

B1.1 INSTALLATION OF UNDERGROUND TRAFFIC SIGNALS SERVICES & ASSOCIATED WORKS

B2. SUBMISSION DEADLINE

B2.1 The Submission Deadline is 4:00 p.m. Winnipeg time, March 31, 2017

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. ENQUIRIES

B3.1 All enquiries shall be directed to the Contract Administrator identified in D5.1.

B3.2 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 promptly notify the Contract Administrator of the error, discrepancy or omission at least five (5) Business Days prior to the Submission Deadline.

B3.3 If the Bidder is unsure of the meaning or intent of any provision therein, the Bidder should request clarification as to the meaning or intent prior to the Submission Deadline.

B3.4 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.

B3.5 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.

B3.6 The Bidder shall not be entitled to rely on any response or interpretation received pursuant to B3 unless that response or interpretation is provided by the Contract Administrator in writing.

B4. CONFIDENTIALITY

B4.1 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.

B4.2 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.

B5. ADDENDA

- B5.1 The Contract Administrator may, at any time prior to the Submission Deadline, issue addenda correcting errors, discrepancies or omissions in the Bid Opportunity, or clarifying the meaning or intent of any provision therein.
- B5.2 The Contract Administrator will issue each addendum at least two (2) Business Days prior to the Submission Deadline, or provide at least two (2) Business Days by extending the Submission Deadline.
- B5.2.1 Addenda will be available on the Bid Opportunities page at The City of Winnipeg, Corporate Finance, Materials Management Division website at <http://www.winnipeg.ca/matmgt/bidopp.asp>
- B5.2.2 The Bidder is responsible for ensuring that he/she has received all addenda and is advised to check the Materials Management Division website for addenda regularly and shortly before the Submission Deadline, as may be amended by addendum.
- B5.2.3 The Bidder shall acknowledge receipt of each addendum in Paragraph 8 of Form A: Bid. Failure to acknowledge receipt of an addendum may render a Bid non-responsive.

B6. SUBSTITUTES

- B6.1 The Work is based on the Plant, Materials and methods specified in the Bid Opportunity.
- B6.2 Substitutions shall not be allowed unless application has been made to and prior approval has been granted by the Contract Administrator in writing.
- B6.3 Requests for approval of a substitute will not be considered unless received in writing by the Contract Administrator at least five (5) Business Days prior to the Submission Deadline.
- B6.4 The Bidder shall ensure that any and all requests for approval of a substitute:
- (a) provide sufficient information and details to enable the Contract Administrator to determine the acceptability of the Plant, Material or method as either an approved equal or alternative;
 - (b) identify any and all changes required in the applicable Work, and all changes to any other Work, which would become necessary to accommodate the substitute;
 - (c) identify any anticipated cost or time savings that may be associated with the substitute;
 - (d) certify that, in the case of a request for approval as an approved equal, the substitute will fully perform the functions called for by the general design, be of equal or superior substance to that specified, is suited to the same use and capable of performing the same function as that specified and can be incorporated into the Work, strictly in accordance with the proposed work schedule and the dates specified in the Supplemental Conditions for Substantial Performance and Total Performance;
 - (e) certify that, in the case of a request for approval as an approved alternative, the substitute will adequately perform the functions called for by the general design, be similar in substance to that specified, is suited to the same use and capable of performing the same function as that specified and can be incorporated into the Work, strictly in accordance with the proposed work schedule and the dates specified in the Supplemental Conditions for Substantial Performance and Total Performance.
- B6.5 The Contract Administrator, after assessing the request for approval of a substitute, may in his/her sole discretion grant approval for the use of a substitute as an "approved equal" or as an "approved alternative", or may refuse to grant approval of the substitute.
- B6.6 The Contract Administrator will provide a response in writing, at least two (2) Business Days prior to the Submission Deadline, only to the Bidder who requested approval of the substitute.

- B6.6.1 The Bidder requesting and obtaining the approval of a substitute shall be entirely responsible for disseminating information regarding the approval to any person or persons he/she wishes to inform.
- B6.7 If the Contract Administrator approves a substitute as an “approved equal”, any Bidder may use the approved equal in place of the specified item.
- B6.8 If the Contract Administrator approves a substitute as an “approved alternative”, any Bidder bidding that approved alternative may base his/her Total Bid Price upon the specified item but may also indicate an alternative price based upon the approved alternative. Such alternatives will be evaluated in accordance with B15.
- B6.9 No later claim by the Contractor for an addition to the Total Bid Price because of any other changes in the Work necessitated by the use of an approved equal or an approved alternative will be considered.

B7. BID COMPONENTS

- B7.1 The Bid shall consist of the following components:
- (a) Form A: Bid;
 - (b) Form B: Prices;
- B7.2 Further to B7.1, the Bidder should include the written correspondence from the Contract Administrator approving a substitute in accordance with B6.
- B7.3 All components of the Bid shall be fully completed or provided, and submitted by the Bidder no later than the Submission Deadline, with all required entries made clearly and completely, to constitute a responsive Bid.
- B7.4 The Bid Submission may be submitted by mail, courier or personal delivery, or by facsimile transmission.
- B7.5 If the Bid Submission is submitted by mail, courier or personal delivery, it shall be enclosed and sealed in an envelope clearly marked with the Bid Opportunity number and the Bidder's name and address, and shall be submitted to:
- The City of Winnipeg
Corporate Finance Department
Materials Management Division
185 King Street, Main Floor
Winnipeg, MB R3B 1J1
- B7.5.1 Samples or other components of the Bid Submission which cannot reasonably be enclosed in the envelope may be packaged separately, but shall be clearly marked with the Bid Opportunity number, the Bidder's name and address, and an indication that the contents are part of the Bidder's Bid Submission.
- B7.6 Bidders are advised not to include any information/literature except as requested in accordance with B7.1.
- B7.7 Bidders are advised that inclusion of terms and conditions inconsistent with the Bid Opportunity document, including the General Conditions, will be evaluated in accordance with B15.1(a).
- B7.8 If the Bid Submission is submitted by facsimile transmission, it shall be submitted to 204 949-1178.
- B7.8.1 The Bidder is advised that the City cannot take responsibility for the availability of the facsimile machine at any time.
- B7.9 Bids submitted by internet electronic mail (e-mail) will not be accepted.

B8. BID

- B8.1 The Bidder shall complete Form A: Bid, making all required entries.
- B8.2 Paragraph 2 of Form A: Bid shall be completed in accordance with the following requirements:
- (a) if the Bidder is a sole proprietor carrying on business in his/her own name, his/her name shall be inserted;
 - (b) if the Bidder is a partnership, the full name of the partnership shall be inserted;
 - (c) if the Bidder is a corporation, the full name of the corporation shall be inserted;
 - (d) if the Bidder is carrying on business under a name other than his/her own, the business name and the name of every partner or corporation who is the owner of such business name shall be inserted.
- B8.2.1 If a Bid is submitted jointly by two or more persons, each and all such persons shall identify themselves in accordance with B8.2.
- B8.3 In Paragraph 3 of Form A: Bid, the Bidder shall identify a contact person who is authorized to represent the Bidder for purposes of the Bid.
- B8.4 Paragraph 10 of Form A: Bid shall be signed in accordance with the following requirements:
- (a) if the Bidder is a sole proprietor carrying on business in his/her own name, it shall be signed by the Bidder;
 - (b) if the Bidder is a partnership, it shall be signed by the partner or partners who have authority to sign for the partnership;
 - (c) if the Bidder is a corporation, it shall be signed by its duly authorized officer or officers;
 - (d) if the Bidder is carrying on business under a name other than his/her own, it shall be signed by the registered owner of the business name, or by the registered owner's authorized officials if the owner is a partnership or a corporation.
- B8.4.1 The name and official capacity of all individuals signing Form A: Bid should be printed below such signatures.
- B8.4.2 All signatures shall be original.
- B8.5 If a Bid is submitted jointly by two or more persons, the word "Bidder" shall mean each and all such persons, and the undertakings, covenants and obligations of such joint Bidders in the Bid and the Contract, when awarded, shall be both joint and several.

B9. PRICES

- B9.1 The Bidder shall state a price in Canadian funds for each item of the Work identified on Form B: Prices.
- B9.2 Payments to Non-Resident Contractors are subject to Non-Resident Withholding Tax pursuant to the Income Tax Act (Canada).
- B9.3 The quantities listed on Form B: Prices are to be considered approximate only. The City will use said quantities for the purpose of comparing Bids.
- B9.4 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. DISCLOSURE

- B10.1 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.

B10.2 The Persons are:

- (a) N/A

B11. QUALIFICATION

B11.1 The Bidder shall:

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

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

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

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

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

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

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

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

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

B12. OPENING OF BIDS AND RELEASE OF INFORMATION

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

B13. IRREVOCABLE BID

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

B14. WITHDRAWAL OF BIDS

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

B15. EVALUATION OF BIDS

- B15.1 Award of the Contract shall be based on the following bid evaluation criteria:

- (a) compliance by the Bidder with the requirements of the Bid Opportunity, or acceptable deviation therefrom (pass/fail);
- (b) qualifications of the Bidder and the Subcontractors, if any, pursuant to B11 (pass/fail);
- (c) Total Bid Price;
- (d) economic analysis of any approved alternative pursuant to B6.

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

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

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

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

B16. AWARD OF CONTRACT

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

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

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

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

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

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

PART C - GENERAL CONDITIONS

C0. GENERAL CONDITIONS

- C0.1 The General Conditions for Construction (Revision 2006 12 15) are applicable to the Work of the Contract.
- C0.1.1 The *General Conditions for Construction* are available on the Information Connection page at The City of Winnipeg, Corporate Finance, Materials Management Division website at http://www.winnipeg.ca/matmgt/gen_cond.stm .
- C0.2 A reference in the Bid Opportunity to a section, clause or subclause with the prefix “C” designates a section, clause or subclause in the General Conditions for Construction.

PART D - SUPPLEMENTAL CONDITIONS

GENERAL

D1. GENERAL CONDITIONS

D1.1 In addition to the General Conditions for Construction, these Supplemental Conditions are applicable to the Work of the Contract.

D2. SCOPE OF WORK

D2.1 The Work to be done under the Contract shall consist of the installation, repair and removal of Traffic Signals underground infrastructure for the period from May 1, 2017 until December 1, 2017, with the option of one (1) mutually agreed upon one (1) year extensions.

D2.1.1 The City may negotiate the extension option with the Contractor within ninety (90) Calendar Days prior to the expiry date of the Contract. The City shall incur no liability to the Contractor as a result of such negotiations.

D2.1.2 Changes resulting from such negotiations shall become effective on January 1st of the respective, with the intention of commencing the respective year's Work in May. Changes to the Contract shall not be implemented by the Contractor without written approval by the Contract Administrator.

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

- (a) Installation of concrete bases.
- (b) Installation of underground conduit.
- (c) Installation of concrete and pre-cast pits.
- (d) Removal of existing bases and pits.
- (e) Restoration of pavement, miscellaneous slabs, medians and boulevards.

D2.3 The Work shall be done on an "as required" basis during the term of the Contract.

D2.3.1 The type and quantity of Work to be performed under this Contract shall be as authorized from time to time by the Contract Administrator and/or Users.

D2.3.2 Notwithstanding C7.4, the City shall have no obligation under the Contract to purchase any quantity of any item in excess of its actual operational requirements.

D2.4 Further to C7, if at any time for the duration of the Contract, if the City requires additional quantities of the Contract items, the City may request the Contractor to supply up to one-hundred percent (100%) additional quantities as extra Work at the unit prices set out in the Contract. See Appendix A - History of Quantities & Totals.

D3. DURATION OF CONTRACT

D3.1 The Contractor shall perform the Work of this Contract during the period of May 1, 2017 to December 1, 2017.

D4. DEFINITIONS

D4.1 When used in this Bid Opportunity:

- (a) **"As-Built"** means drawing which illustrates the geographic location of modified and installed Traffic Signal Infrastructure, including all required and associated dimensioning;
- (b) **"Site"** Further to General Conditions for Construction clause C1.1 (bb), Site means one Signalized Intersection, or one flashing Pedestrian Corridor, or one intersection containing Hazard Flasher(s), or one Camera site. A site shall consist of all associated Signal Infrastructure as detailed in a City of Winnipeg Traffic Signal construction drawing.

- (c) **"Loop(s)"** means intrusive vehicular detector cut into pavement, that is, concrete, asphalt or composite concrete and asphalt roadway as defined in CW 3620 of the City of Winnipeg Standard Construction Specifications.
- (d) **"Traffic Signals Branch"** means the branch of the City of Winnipeg Public Works Department responsible for the design, operation, maintenance and installation of Traffic Signals devices.
- (e) **"Underground Construction Crew"** means a construction crew including supervision, equipment, materials, tools and all other items required such that the timely performance of all work outlined in this contract can be completed.
- (f) **"Loop Crew"** means a construction crew including supervision, equipment, materials, tools and all other items required such that the timely performance of the Saw-Cutting and Sealing of Vehicle Detector Loops can be completed.

D5. CONTRACT ADMINISTRATOR

D5.1 The Contract Administrator is:
Andrew Condon, P.Eng.
Traffic Signals Design and Construction Engineer
Telephone No. 204-986-3076
Facsimile No. 204-772-6306

D5.2 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.

D5.3 Bids Submissions must be submitted to the address in B8.5.

D6. CONTRACTOR'S SUPERVISOR

D6.1 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.

D7. OWNERSHIP OF INFORMATION, CONFIDENTIALITY AND NON DISCLOSURE

D7.1 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.

D7.2 The Contractor shall not make any public announcements or press releases regarding the Contract, without the prior written authorization of the Contract Administrator.

D7.3 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.

D7.4 A Contractor who violates any provision of D7 may be determined to be in breach of Contract.

D8. NOTICES

D8.1 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.

- D8.2 All notices, requests, nominations, proposals, consents, approvals, statements, authorizations, documents or other communications to the City, except as expressly otherwise required in D8.3, D8.4 or elsewhere in the Contract, shall be sent to the attention of the Contract Administrator at the facsimile number identified in D5.1.
- D8.3 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
- D8.4 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
- D8.1 Bids Submissions must not be submitted to the above facsimile numbers. Bids must be submitted in accordance with B7.**

SUBMISSIONS

D9. AUTHORITY TO CARRY ON BUSINESS

- D9.1 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.

D10. SAFE WORK PLAN

- D10.1 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.
- D10.2 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>

D11. INSURANCE

- D11.1 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) automobile liability insurance for owned automobiles used for or in connection with the Work in the amount of at least two million dollars (\$2,000,000.00) at all times during the performance of the Work and until the date of Total Performance;

- (c) an 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.

D11.2 Deductibles shall be borne by the Contractor.

D11.3 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 the date specified in C4.1 for the return of the executed Contract.

D11.4 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

D12. PERFORMANCE SECURITY

D12.1 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.

D12.1.1 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.

D12.2 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 letter of intent and 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

D13. SUBCONTRACTOR LIST

D13.1 The Contractor shall provide the Contract Administrator with a complete list of the Subcontractors whom the Contractor proposes to engage (Form J: Subcontractor List) at least two (2) Business Days prior to the commencement of any Work on the Site but in no event later than seven (7) Calendar Days from notification of the award of Contract.

SCHEDULE OF WORK

D14. COMMENCEMENT

D14.1 The Contractor shall not commence any Work until he/she is in receipt of a notice of award from the City authorizing the commencement of the Work.

D14.2 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 D9;
 - (ii) evidence of the workers compensation coverage specified in C6.15;
 - (iii) evidence of the insurance specified in D11;
 - (iv) the performance security specified in D12; and

- (v) the Subcontractor list specified in D12.1.
 - (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.
- D14.3 The Contractor shall commence the Work on the Site within ten (10) Working Days of placing of an order, except where otherwise agreed at the time of ordering.
- D14.4 Further to CW 1120, utility clearances shall be obtained prior to the commencement of Work on Site. If the Contractor can show that utility clearances could not be obtained due to delays by the utility owners, the Commencement date shall be adjusted accordingly.
- D15. SUBSTANTIAL PERFORMANCE**
- D15.1 The Contractor shall achieve Substantial Performance for each Site within five (5) consecutive Working Days of the commencement of the Work as specified in D14, unless otherwise directed by the Contract Administrator.
- D15.2 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, or their designate, 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.
- D15.3 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.
- D16. TOTAL PERFORMANCE**
- D16.1 The Contractor shall achieve Total Performance for each Site within ten (10) consecutive Working Days of the commencement of the Work as specified in D14, unless otherwise directed by the Contract Administrator.
- D16.2 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, or their designate, 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.
- D16.3 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.
- D17. LIQUIDATED DAMAGES**
- D17.1 If the Contractor fails to achieve Substantial Performance for each Site in accordance with the Contract by the day fixed herein for Substantial Performance, the Contractor shall pay the City one thousand dollars (\$1,000) per Working Day for each and every Working Day following the day fixed herein for Substantial Performance during which such failure continues.
- D17.2 The amount specified for liquidated damages in D17.1 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.
- D17.3 The City may reduce any payment to the Contractor by the amount of any liquidated damages assessed.

D18. ORDERS

- D18.1 Orders for Work shall be made at the regular weekly job meetings.
- D18.2 The Contractor shall provide a local Winnipeg telephone number or a toll-free telephone number at which orders for service may be placed in the event that emergency work is necessary and has not been scheduled at the regular weekly job meetings.

D19. JOB MEETINGS

- D19.1 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.
- D19.2 At the weekly job meetings, the Contract Administrator will provide the contractor with a schedule for upcoming Sites to be completed to allow the contractor adequate time to complete utility clearances prior to the commencement of Work at these Sites.
- D19.3 The Contract Administrator reserves the right to cancel any job meeting or call additional job meetings whenever he/she deems necessary.

CONTROL OF WORK

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

- D20.1 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).

D21. THE WORKPLACE SAFETY AND HEALTH ACT (MANITOBA) – QUALIFICATIONS

- D21.1 Further to B11.4, the Contractor/Subcontractor must, throughout the term of the Contract, have a Workplace Safety and Health Program meeting the requirements of The Workplace Safety and Health Act (Manitoba). At any time during the term of the Contract, the City may, at its sole discretion and acting reasonably, require updated proof of compliance, as set out in B11.4.

D22. RESPONSIBILITY FOR MATERIALS

- D22.1 The Contractor will be responsible for all forms and templates issued by the City for use by the Contractor. The Contractor must return all forms and templates in a clean and undamaged condition within ten business days after the end date stipulated in the Scope of Work. The replacement value of any forms or templates not returned to the City of Winnipeg within 10 business days after the end date stipulated in the Scope of Work will be reduced from the final payment to the Contractor.
- D22.2 The Contractor is responsible for all materials after receiving them from the City of Winnipeg Stores. He shall provide the Site and amount of usage for each item. All unused materials (float) will be returned to the City of Winnipeg no later than the end date stipulated in the Scope of Work. The replacement value of any materials not returned to the City of Winnipeg within 10 business days after the end date stipulated in the Scope of Work will be reduced from the final payment to the Contractor.

D23. ORDERS FOR WORK AT MULTIPLE SITES

- D23.1 Due to varying scope of work at each Site, the Contractor can expect Orders for Work at multiple Sites to occur concurrently. Assuming reasonable performance by the Contractor, in general Traffic Signals Branch will require a minimum of one Underground Construction Crew and one Loop Crew for the majority of time outlined in the Scope of Work. However, as work demands require, a second Underground Construction Crew may be required to meet the

obligations of the Traffic Signals Branch. The five working days for Substantial Performance has been determined as the longest duration of Work at any one Site. However, Work at many of the Sites will have durations less than five Working days.

D24. WORK ON WEEKENDS

- D24.1 The Contractor will be required to provide an Underground Construction Crew to complete Work on Saturday and Sunday as required by Traffic Signals Branch. The Contractor will be provided a minimum of two Working days' notice prior to weekend work.
- D24.2 Work at several Sites have staging requirements such that Work on weekends is required.

D25. WORKING DAYS FOR SITES WITH MULTIPLE STAGES OF WORK

- D25.1 Due to coordination of Traffic Signal Work with others, it will be necessary to stage Traffic Signals construction to accommodate construction by others.
- D25.2 Where the Contractor is required to complete Work on multiple occasions at the same Site, the working days will be determined by actual days of Work on Site instead of consecutive working days.

D26. WORK BY OTHERS

- D26.1 Traffic Signal Works are often completed in coordination with various parties. The coordination with these parties results in the staging of Traffic Signal Works.
- D26.2 Work by others on or near the Sites will include but not necessarily be limited to:
- (a) Roadwork and Water and Waste Contractors;
 - (b) Manitoba Hydro;
 - (c) MTS;
 - (d) Shaw;
 - (e) Railway Contractors.

MEASUREMENT AND PAYMENT

D27. PAYMENT

- D27.1 Further to C12, the City may at its option pay the Contractor by direct deposit to the Contractor's banking institution.

WARRANTY

D28. WARRANTY

- D28.1 Warranty is as stated in C13.

FORM H1: PERFORMANCE BOND
(See D12)

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. 194-2017

INSTALLATION OF UNDERGROUND TRAFFIC SIGNALS SERVICES & ASSOCIATED WORKS

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 D12)

(Date)

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

RE: PERFORMANCE SECURITY - BID OPPORTUNITY NO. 194-2017

INSTALLATION OF UNDERGROUND TRAFFIC SIGNALS SERVICES & ASSOCIATED WORKS

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:

Specifications and Drawings

- (a) Appendix A – History of Traffic Signals Quantities and Total
- (b) Appendix B – Anticipated Major Work Activities

E2. MATERIALS

- E2.1 Further to CW3620 2.11, Anchor Bolt Templates and Top Rings:
- (a) Master anchor bolt templates and Oversized D top rings are provided by the City shall be used by the Contractor for all bases constructed under the provisions of this specification.
 - (b) When using anchor bolt templates and top rings for pouring concrete they both must be oiled (both inside and out) for ease of removal and cleaning. Following the removal of anchor bolt template and top ring, they both must be cleaned immediately.
 - (c) The templates shall be suitably cleaned by the Contractor at the end of the Contract and be returned to the City. The template shall be cleaned free of concrete residue and any other debris and returned to the City in a "like-new" condition.
 - (d) In the event of loss or damage to materials supplied by the City, the cost of replacement materials shall be borne by the Contractor.
 - (e) The Contractor shall contact the City of Winnipeg Stores Foreman to coordinate the pickup of the materials. Prior to pickup of the materials the Contractor will be required to obtain specific account information from the Traffic Signals Branch.

Public Works Stores
Attn: Stores Foreman
1277 Pacific Avenue
Winnipeg, MB R3E 1G7
Phone: 204.794.4333

- E2.2 Further to CW3620 2.10, City Supplied Materials:
- (a) If requested by the Contract Administrator, the Contractor shall submit in writing an account for all materials supplied by the City, showing in detail all materials drawn from the City's stores, quantities used at each work location, and materials on hand.
 - (b) The City will issue the Contractor a "float" quantity of the above noted City-supplied materials, for the purpose of expediting the daily work progress.

- (c) The Contractor shall be obliged to requisition and withdraw those items which are City supplied material on the basis of the estimated quantity needed for a particular job.
- (d) The Contractor shall account for the quantities of materials drawn to the satisfaction of the City. Any overdraw of materials in excess of required quantities shall be credited or returned to the City. At the end of the Contract, all surplus materials shall be returned to the City.

E3. ANCHOR BOLT PROJECTIONS FOR EARLY OPEN CONCRETE BASES

E3.1 Further to Section 3.7 of CW 3620 Concrete A and J Bases shall have an anchor bolt projection as specified below.

- (a) The following bolt projections shall override what has been specified on SD-310, SD-313, and SD-314.

Concrete Base Type	Anchor Bolt Projection (mm)
Signal Pole Base Early Open – Type A (SD-310)	60 (-0,+5) mm
Signal Pole Base Early Open – Type J (SD-314)	150

E4. SERVICE BOX PRE-CAST 36”

E4.1 Description

- (a) This specification covers the use and installation of a service box pre-cast 36”

E4.2 Materials

- (a) Materials shall be as per section 2 of CW 3620

E4.3 Construction Method

- (a) Install Pre-Cast Service Box in grass boulevards/medians, and hard surfaced medians or as shown on the Drawings or as directed by the Contract Administrator.
- (b) Fill bottom of excavation with compacted limestone base course material to set precast service box to grade.
- (c) Install Pre-Cast Service Box on top of the compacted granular fill material to pavement, sidewalk or boulevard finish grade.
- (d) All conduits must be bundled into a group in the centre of the Pre-Cast Service Box. Install plastic plugs prior to back fill.
- (e) Backfill around Pre-Cast Service Box exterior. Back fill shall conform to requirements of SD-342.
- (f) Pre-Cast Service box shall meet the grade of the sidewalk or boulevard given provided by Contract Administrator.

E4.4 Measurement and Payment

- (a) Installation of Service Boxes shall be measured on a unit basis and paid for at the Contract Unit Price per unit for “Items of Work” listed below. The number of units to be paid for shall be the total number of Service Boxes installed in accordance with this specification, accepted and measured by the Contract Administrator.
 - (i) Service Box Pre-Cast 36”

E5. HYDRO EXCAVATION

E5.1 Description

- (a) This specification covers the removal of earthen material immediately adjacent to underground utilities infrastructure by means of high pressure water spray, and the recovery of evacuated material by vacuum type means or equivalent method as approved by the Contract Administrator.

E5.2 Equipment

- (a) Hydro Excavation unit shall be capable of maintaining a minimum working pressure of 10,000 psi, at a rate of flow of 10-12 gallons per minute. Unit should be adjustable, so as to provide adequate pressure to remove earthen material identified by the Contract Administrator.
- (b) Spray head shall be equipped with a rotating nozzle, in order to provide a wider path of cut.

E5.3 Construction Methods

- (a) Hydro Removal of Earthen Material
 - (i) Earthen material adjacent to utility entity shall be sprayed with high pressure water so as to remove all such material identified by the Contract Administrator.
- (b) Recovery of Excavated Material
 - (i) The recovery of excavated material shall be done using vacuum type method, or other type method as approved by the Contractor Administrator.
 - (ii) The recovery of material shall follow immediately behind excavation, to avoid excavated areas from filling with excavated material.
 - (iii) The use of mechanical sweepers will not be allowed.
 - (iv) Depose of material in accordance with Section 3.4 of CW-1130.
- (c) Backfill of Hydro Excavated Hole
 - (i) The Contractor shall be responsible for the backfill of the hydro excavated hole upon completion of the Work Described herein, to the approval of the Contract Administrator.

E5.4 Measurement and Payment

- (a) Hydro Excavation of earthen material will be measured on an hourly basis and paid for at the Contract Unit Price per hour of "Hydro Excavation". The hours to be paid for will be the total number of hours of Hydro Excavation as measured on Site in accordance with this Specification, and accepted by the Contract Administrator.
- (b) Hydro Excavation shall include standby time approved by the Contract Administrator.
- (c) No measurement or payment shall be made for exposure lines by hand shovel.

E6. INSTALLATION OF CONDUIT INTO HYDRO SERVICE PEDESTAL

E6.1 Description

- (a) This specification covers the installation of Conduit and Hydro Service Pedestals

E6.2 Construction Method

- (a) Where conduit installed under this Specification is terminated at an existing Hydro Service Pedestal, the Contractor shall contact Hydro utility at least 48 hours prior to starting the work, explain the work involvement to the Hydro and obtain the permission of Hydro to undertake the works. Conduits to be installed into Hydro Service Pedestal shall be made by coring, not by drilling, nor by breaking with a jack-hammer or similar device.
- (b) Following the conduit installation, place concrete around the conduit(s) so that the wall of the plant is repaired as directed by utility.

E6.3 Measurement & Payment

- (a) Installation of conduit into Hydro Service Pedestal will be paid for the Contract Unit Price for "Installation of Conduit into Hydro Service Pedestal".

E7. STREET PAVEMENT RESTORATIONS

E7.1 Description

- (a) This specification covers the restoration of concrete pavement, asphalt pavement and pavements with asphalt over concrete where removals are required for the installation of Traffic Signal infrastructure.

E7.2 Materials

- (a) Materials shall be as per Section 5 of CW 3230 and Section 5 of CW 3410.
- (b) Asphalt material shall be supplied in accordance with CW 3410.

E7.3 Construction Method

- (a) Remove as much concrete pavement as necessary to facilitate adequate room for installation of traffic signals appurtenances. The removal area shall be uniform, rectangular and parallel to the nearest edge or joint. If the area left is less than 1000mm in width to the nearest joint or edge, remove all concrete to the nearest joint or edge.
- (b) Restore concrete and asphalt pavement to match adjacent existing concrete and asphalt pavement depths respectively.
- (c) Restore concrete pavement in accordance with Section 9 of CW 3230.
- (d) Restore asphalt pavement in accordance with Section 9.4 of CW 3410.

E7.4 Measurement & Payment

- (a) Concrete and Asphalt Pavement Restoration will be measured on an area bases and paid for at the Contract Unit Price per square meter for "Street Pavement Restoration". The area to be paid for will be the total numbers of square meters of pavement restored in accordance with this specification, accepted and measured by the Contract Administrator.
- (b) All costs for base preparation, tack coat, reinforcing steel, drilled dowels and tier bars, and concrete slabs and/or asphalt pavement of various depths, mill and fill, asphalt overlay and all other work associated with concrete and /or asphalt pavement restoration will be included in the item of work "Street Pavement Restorations"

E8. MISCELLANEOUS SLAB RESTORATIONS

E8.1 Description

- (a) This specification covers the restoration of miscellaneous slabs which includes, but is not limited to, median slab, monolithic median slab, safety median, 100 mm sidewalk, 150 mm reinforced sidewalk, bullnose, monolithic curb and sidewalk, asphalt pavement for multi-use path, interlocking paving stones, and interlocking paving stones on a lean concrete base where removals are required for the installation of Traffic Signals infrastructure.

E8.2 Materials

- (a) Materials shall be as per Section 2 of CW 3235, Section 5 of CW 3410, Section 5 of CW 3330 and Section 5 of CW 3335.
- (b) Asphalt material shall be supplied in accordance with CW 3410.

E8.3 Construction Methods

- (a) Remove as much concrete pavement as necessary to facilitate adequate room for installation of traffic signals appurtenances. The removal area shall be uniform, rectangular and parallel to the nearest edge or joint. If the area left is less than 600mm in width to the nearest joint or edge, remove all concrete to the nearest joint or edge.
- (b) Match existing adjacent miscellaneous slab style, including but not limited to medians, sidewalks, monolithic curb and sidewalk, and bullnoses.
- (c) Restore miscellaneous slabs in accordance with Section 3 of CW 3235
- (d) Restore asphalt sidewalk or multi-use path in accordance with Section 9.4 of CW 3410.
- (e) Restore sidewalks comprised of paving stones in accordance with Section 9 of CW 3330.

- (f) Restore sidewalks comprised of paving stones on a lean concrete base in accordance with Section 9 of CW 3335.
- (g) Restore precast concrete pavers to match existing adjacent paving stone colour and style.

E8.4 Measurement & Payment

- (a) Miscellaneous Slabs Restoration will be measured on an area basis and paid for at the Contract Unit Price per square meter for "Miscellaneous Slabs Restoration". The area to be paid for will be the total number of square meters of median slab, monolithic median slab, safety median, 100 mm sidewalk, 150 mm reinforced sidewalk, bullnose, monolithic curb and sidewalk, bullnoses, asphalt pavement for multi-use path, interlocking paving stones, and interlocking paving stones on a lean concrete base restored in accordance with this specification, accepted and measured by the Contract Administrator.
- (b) All costs for base preparation, tack coat, reinforcing steel, drilled tie bars, precast concrete pavers, and concrete and/or asphalt pavement and all other work associated with miscellaneous slabs restoration, will be included in the item of work for "Miscellaneous Slab Restoration"

E9. CONCRETE CURB RESTORATION

E9.1 Description

- (a) This specification covers the restoration of concrete curb, which includes, but is not limited to, curb and gutter, mountable curb, 75 mm lip curb, 40 mm lip curb, modified lip curb, barrier curb, modified barrier curb, safety curb, monolithic concrete splash strip, and separate concrete splash strip where removals are required for the installation of Traffic Signals Infrastructure.

E9.2 Materials

- (a) Materials shall be as per Section 2 of CW3240

E9.3 Construction Method

- (a) Remove only as much concrete pavement as necessary to facilitate adequate room for installation of traffic signals appurtenances. If the area necessary is within 600 mm of a joint, increase the removal area to encompass the joint.
- (b) Match existing adjacent curb style.
- (c) Restore concrete curbs in accordance with Section 3 of CW 3240.

E9.4 Measurement & Payment

- (a) Concrete Curb Restoration will be measured on a length basis and paid for at the Contract Unit Price per linear meter for "Concrete Curb Restoration". The length to be paid for will be the total number of meters of curb and gutter, mountable curb, 75 mm lip curb, 40 mm lip curb, modified lip curb, barrier curb, modified barrier curb, safety curb, monolithic concrete splash strip, or separate concrete splash strip restored in accordance with this specification accepted and measured by the Contract Administrator.
- (b) All costs for reinforcing steel, drilled tie bars, curb of various types and all other work associated with concrete curb restoration, will be included in the item of work, "Concrete Curb Restoration".

E10. CURB RAMP INSTALLATION

E10.1 Description

- (a) This specification covers the restoration and installation of curb ramps as shown on the drawings and where directed by the Contract Administrator.

E10.2 Materials

- (a) Materials shall be as per Section 2 of CW 3240.

E10.3 Construction Methods

- (a) Where curb ramp restorations are being completed, remove only as much concrete pavement as necessary to facilitate adequate room for installation of traffic signals appurtenances. If the area necessary is within 600 mm of a joint, increase the removal area to encompass the joint.
- (b) Where curb ramp installations are being completed, remove existing curb and sidewalk as directed by the drawings or Contract Administrator that is required to install the curb ramps as per the CW 3240.
- (c) The transition curb shall match the existing adjacent curb style.
- (d) Restore or install curb ramps in accordance with Section 3 of CW 3240.

E10.4 Measurement & Payment

- (a) The concrete sidewalk ramp and the concrete ramp for multi-use paths will be paid as a unit under the Contract Unit Price "Curb Ramp Installation".

E11. INSTALLATION OF EARLY OPEN CONCRETE BASES

E11.1 Description

- (a) This specification shall cover the installation of Early Open Concrete Bases.

E11.2 Materials

- (a) Supply concrete for bases 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).
- (b) Further to E12.2 (a), the supplied concrete shall achieve a minimum compressive strength of 22 MPa at 48 hours.
- (c) City Supplied Materials shall be as per Section 2.10 of CW3620 and E3.

E11.3 Construction Methods

- (a) Construction Methods for the installation of Early Open Concrete Bases shall be as per Section 3.7 of CW3620.

E11.4 Measurement and Payment

- (a) Installation of Concrete Bases shall be measured on a unit basis and paid for at the Contract Unit Price per unit for "Items of Work" listed below. The number of units to be paid for shall be the total number of concrete bases installed in accordance with this specification, accepted and measured by the Contract Administrator.

Items of Work:

- (i) Signal Pole Base Early Open - Type A
- (ii) Signal Pole Base Early Open – Type OD
- (iii) Signal Pole Base Early Open - Type G
- (iv) Signal Pole Base Early Open - Type J
- (v) Signal Pole Base Early Open - Type L
- (b) Payment for the items of work in this Section includes the supply and installation of ready mix or mixed concrete on site.
- (c) Payment for the items of work listed above includes the supply and installation of grounding rods (electrodes) installed with the concrete bases.
- (d) Payment for the items of work listed above includes boring.
- (e) Payment for the items of work listed above includes top ring forms.

E12. WORK ADJACENT TO CANADIAN PACIFIC RAILWAY

- E12.1 Work at the proposed signalized intersection of Plessis Road and Gunn Road requires the Contractor to Work adjacent to Canadian Pacific (CP) right of way.

- E12.2 The Contractor shall be responsible to meet all CP constraints, requirements, and safety measures.
- E12.3 The Contractor shall be responsible for any damage, delay, disruption and/or inconvenience caused to CP by their equipment or operations of Work to the tracks, the railway's operation or their property.
- E12.4 Prior to commencement of work at least one weeks' notice must be provided to the Roadmaster. CP Roadmaster must approve applicant's work schedule.
- E12.5 If a Flagperson is required, CP has adopted a No Overtime policy effective immediately. No request for overtime beyond 40 hours per week will be considered. The normal work week for CP employees is 40 hours per week, typically Monday to Friday as work days from 0700 to 1500 including any travel time and subject to availability of CP resources. The City of Winnipeg will incur costs associated with Flagging Activities.
- E12.6 Protection of CPR signal facilities is required. Contact CP Rail CBYD Desk at 1-888-248-4410 at least one week in advance prior to commencement of work.
- E12.7 The Contractor is required to phone the following Call before You Dig number(s) to arrange for locates prior to the installation of your facility:
- (a) Group Telecom - Call Before You Dig 1-877-865-6193
 - (b) The number provided above may not be inclusive of all utilities in this particular location and it is the Contractors responsibility to ensure that all existing utilities are notified prior to commencing the Work.
- E12.8 Personal Protective Equipment and Clothing:
- (a) CSA approved equipment to be worn at all times includes:
 - (i) Steel toe safety boots
 - (ii) Hard-hats
 - (iii) Safety glasses with permanently attached side shields
 - (iv) High visibility vests
 - (b) CSA approved equipment to be available and worn when site conditions or regulations require includes:
 - (i) Fall protection equipment as required by applicable codes.
 - (ii) Testing, monitoring and rescue equipment where confined spaces are encountered
 - (iii) Welding goggles, gloves and chaps.
 - (iv) Respirators appropriate for the hazard present.
 - (v) Hearing protection to be worn in all designated locations and as per all applicable codes and regulations.
 - (c) Clothing:
 - (i) Shirts with sleeves must be worn at all times.
 - (ii) Pants must be at least ankle length.
- E12.9 Protection of Railway Traffic and Property:
- (a) The work shall be organized and executed in such a manner as to ensure no interference with the safety of railway operations.
 - (b) The railway shall determine where flag persons are required to protect railway operations and arrange for it.
 - (c) Unless authorized in writing, no temporary structures, material or equipment shall be installed closer than 12 feet to the nearest rail.
 - (d) During the passage of trains or track units, the Contractor's equipment shall not be operated when within 50 feet of the track unless specifically authorized. During such times, the operator of the equipment shall secure/lower equipment to the ground and vacate the equipment and stand well clear of the track (at least 20 feet back where possible) until the entire train/equipment has passed the work site. When working in multi-track territory operators shall exit to the non-live side of the track and position themselves in a safe area

20 feet from the track as a minimum where possible (do not stand on or between adjacent tracks).

- (e) Unless authorized in writing, Contractor employees are not permitted to operate or ride any CP rolling stock.
- (f) Unless authorized in writing, operating CP vehicles is prohibited.
- (g) The use of CP tools and materials is not permitted.
- (h) Altering, obstructing or operating any components of track, bridges, signals or other railway equipment is prohibited unless specifically authorized and qualified.

E12.10 Site Conditions and Work Site Safety:

- (a) Prior to commencing any work, the Contractor shall ensure that he has taken the time to identify all site conditions that may be a hazard or a potential hazard including the location of underground services and overhead power lines.
- (b) Railway pole lines carry electric power and should be treated as any other power line.
- (c) When required by CP or by the Contractor, job briefings must be conducted in which all Contractor supervisors, employees and sub-contractors must attend. When railway employees are assigned to provide track protection, daily job briefings are mandatory and these railway employees must be included in the briefing.
- (d) All equipment and materials are to be secured and stored well clear of all tracks. Sightlines at grade crossings must not be obscured.
- (e) All mobile equipment must be equipped with beacons and backup alarms.
- (f) All lifting apparatus such as steel cables, nylon slings, chains, shackles, etc., must be safety certified.
- (g) Excavations shall not be left unattended unless they are properly protected; and the CP supervisor shall be notified.
- (h) Be conscious to protect the natural, physical and biological environment of the work site, and comply with all environmental regulations.
- (i) Advise the CP Supervisor in charge, of all hazardous materials that will be used in the work in accordance with WHIMS requirements and make the latest Material Safety Data Sheets (MSDS) available.

E12.11 Injury and Emergent Situations:

- (a) Immediately advise the CP supervisor in charge, of all injuries on the site.
- (b) In the case of an emergency where a hazardous condition may affect the safe passage of trains, immediately report the condition to the CP supervisor.
- (c) If the CP supervisor is not immediately available, the Contractor shall call the **Network Management Centre (NMC) at 1-800-795-7851** for the following emergencies:
 - (i) For emergencies (i.e. incidents, injuries, fire, etc.);
 - (ii) For hazards relating to the safe passage of trains;
 - (iii) For spills
- (d) For hazards or incident requiring **CP Police Services, call 1-800-716-9132.**

E12.12 The Contractor is advised that for parts of the Work of the Contract in the vicinity of railway there may be unproductive time (also known as down time) related to ongoing CN rail operations and train traffic through the site. The Contractor shall accommodate all CN rail operations and train traffic through the site throughout the performance of the Work.

E12.13 No measurement or payment will be made for the work associated with this specification.

E13. WORK ADJACENT TO IMPERIAL OIL PIPELINES

E13.1 Work at the proposed signalized intersection of Plessis Road and Gunn Road requires the installation of conduit across and existing Imperial Oil pipeline.

- E13.2 The Contractor shall contact Imperial Oil's Field Representative directly, either in person or by telephone, a minimum of 72 hours (excluding Saturdays, Sundays and Statutory Holidays) before commencement of Work within 30 meters of the Crossing Area.
- (a) The Imperial Oil Site Representative is Shannon Olsen, (Tel) 204-471-2238.
- E13.3 The Crossing Area means the area of intersection of Imperial Oil's Pipeline and location of the Traffic Signal conduit.
- E13.4 Before proceeding to excavate within 5 meters of the Crossing Area, the Contractor shall fully expose the Imperial Oil Pipeline by hand digging or hydro excavation methods. The Contractor shall not use or permit the use of an excavating machine within 1.5 meters of either side of any existing Imperial Oil Pipeline.
- E13.5 The Contractor shall, where applicable, install and maintain during performance of the Work suitable markers indicating the location of the Imperial Oil Pipeline in the Crossing Area.
- E13.6 The Contractor shall ensure no damage occurs to the existing Imperial Oil pipeline while the Work is being performed in the crossing area including damage which may result from the use of heavy work equipment outside the crossing area while performing the Work in the crossing area.
- E13.7 In the event that the Imperial Oil Pipeline suffers contact damage or other damage as a result of the Work, Imperial Oil shall be notified forthwith and its repair shall be carried out as directed by Imperial Oil at the Contractors cost.
- E13.8 At least 24 hours (excluding Saturdays, Sundays and Statutory Holidays) prior to covering the Imperial Oil Pipeline, the Contractors Field Representative shall contact Imperial Oil's Field Representative directly, either in person or by telephone for inspection.
- E13.9 The Contractor shall maintain the crossing area in good order and condition and carry out expeditiously all Work hereunder.
- E13.10 The Imperial Oil right-of-way must not be used for the transportation, storing or staging of heavy equipment or the storage of spoil piles without the prior consent of the Imperial Oil.
- E13.11 Equipment crossing the pipeline must use one crossing point with a minimum cover of 1.5 meters, or such greater depth of cover (berms) or adequate mechanical protection (rig mats, steel plates, or bridge blocks) necessary to mitigate the stress on the pipeline.
- E13.12 Excavation machinery shall not be placed on top of the pipeline unless no other alternative is available, in which case the above condition for equipment crossing shall apply. In all cases it is the Contractors responsibility to prove the adequacy of depth of cover or mechanical protection to avoid putting stress on the pipeline.
- E13.13 The use of vibrating compaction within the Imperial Oil right-of-way and/or within 6m of the pipeline is prohibited. Static rolling is allowed provided that the cover over the pipeline is sufficient to support the weight of the roller.
- E13.14 No measurement or payment will be made for the work associated with this specification.

E14. PROTECTION OF EXISTING TREES

- E14.1 The Contractor shall take the following precautionary steps to prevent damage from construction activities to existing boulevard trees within the limits of the construction area. The same provisions shall be applied to trees that may be affected on private property.
- (a) The Contractor shall not stockpile materials and soil or park vehicles and equipment on boulevards within 2 meters of trees.
- (b) Trees identified to be at risk by the Contract Administrator are to be strapped with 1" X 4" X 8' (25 x 100 x 2400mm) wood planks, or suitably protected as approved by the Contract Administrator.
- (c) Excavation shall be performed in a manner that minimizes damage to the existing root systems, whether public or private. Where possible, excavation shall be carried out such that the edge of the excavation shall be a minimum of 1.5 times the diameter (measured in

inches), with the outcome read in feet, from the closest edge of the trunk. Where roots must be cut to facilitate excavation, they shall be pruned neatly at the face of excavation.

- (d) Operation of equipment within the dripline of all trees shall be kept to the minimum required to perform the Work required. Equipment shall not be parked, repaired, refuelled; construction materials shall not be stored, and earth materials shall not be stockpiled within the driplines of 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.
- (e) Work on-Site shall be carried out in such a manner so as to minimize damage to existing tree branches. Where damage to branches does occur, they shall be neatly pruned.

E14.2 No measurement or payment will be made for the work associated with this specification.

E15. PROTECTION OF SURVEY INFRASTRUCTURE

E15.1 Notwithstanding clause 3.14 of the General Requirements CW 1130-R2:

E15.2 Further to C6.26 (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.

E15.3 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.

E15.4 Outline 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. Contractors must ensure their landscaping and other subcontractors are aware of this clearance procedure.

E15.5 Where possible, amounts owed to the City in accordance with the above will be deducted from any payments to be made by the City to the Contractor.

E15.6 No measurement or payment will be made for the work associated with this specification.

E16. TRAFFIC CONTROL

E16.1 Further to Clause 3.7 of the General Requirements CW 1130-R2: The Manual of Temporary Traffic Control in Work Areas on City Streets is available, for a fee, from the Customer Services Division of the Public Works Department at 107-1155 Pacific Avenue. This document is also available online and can be viewed or downloaded from:
http://www.winnipeg.ca/publicworks/InformationAndResources/TrafficControl/manual_of_temp_traffic_control.asp

E16.2 Where directed, the Contractor shall construct and maintain temporary asphalt ramps to alleviate vertical pavement obstructions, such as manholes and drop-offs, to the satisfaction of the Contract Administrator. No measurement for payment will be made for this Work.

E16.3 Further to Clause General Requirements CW 1130-R2:

- (a) All Work Sites shall be signed in accordance with the Manual of Temporary Traffic Control. If the Contractor ("Agency" in the manual) cannot sign with their own staff then they shall make arrangements with a sub-contractor to place all temporary regulatory signs. The Contractor shall bear all costs associated with the placement of temporary traffic control devices by the sub-contractor in connection with the Works undertaken by the Contractor. The sub-contractor must be listed in Form J: sub-contractors.
- (b) Any regulatory signage that is required to complete the Works must be completed by the Traffic Services Branch. The Contractor shall coordinate the placement or regulatory

signage with Traffic Services at least five days prior to the commencement of the Works at a given Site.

- (c) The costs associated with hooding and/or temporary removal and replacement of parking signage and/or meters at, and for, the Contractor's own convenience shall be the responsibility of the Contractor. The hooding and/or temporary removal of parking signage and/or meters must be completed by the Traffic Service Branch. The Contractor shall make necessary arrangements with Traffic Services and shall be responsible for all costs associated with the temporary hooding and/or removal of parking signage and/or meters.

E16.4 No measurement or payment will be made for the work associated with this specification.

E17. AUTHORIZED WORK ON PRIVATE PROPERTY

E17.1 This clause is strictly for Work on private property that is authorized and paid for by the City. Damages to private property are handled through the City's Risk Management Division, Claims Branch. Settlement of such damages will not be negotiated or arbitrated by the Contract Administrator on behalf of the Owner or Contractor.

E17.2 Further to C6.26, the Contractor shall confine his Works to the right-of-way or easements. Where Work is required to be done on private property the Contract Administrator will authorize such Work in writing after obtaining the written permission of the property owner.

E17.3 The Contractor shall limit his operations to the minimum area necessary for undertaking the private property Work and shall be responsible for all damages outside the limits of the authorized Work, resulting from Work on private property. Particular care shall be taken to prevent damage to buildings, walkways, trees and plants.

E17.4 No measurement or payment will be made for the work associated with this specification.

E18. TEMPORARY RELOCATION OF AFFECTED STRUCTURES

E18.1 The Contractor shall, have temporarily relocated any portable structure such as benches, mail boxes, news boxes, waste bins, vending machines, etc., which will interfere with the construction of the Work. The Contractor will identify and notify the owners of the portable structures to have them removed or moved. Following the completion of the applicable Work, the Contractor shall notify the owners that the portable structures may be replaced. These relocations shall be considered incidental to the associated Works and no separate measurement for payment will be made.

E18.2 No measurement or payment will be made for the work associated with this specification.