



THE CITY OF WINNIPEG

TENDER

TENDER NO. 252-2024

**UNIVERSITY CRESCENT LAND DRAINAGE SEWER INSTALLATION AND
PAVEMENT RECONSTRUCTION**

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PART B - BIDDING PROCEDURES

B1. CONTRACT TITLE

B1.1 University Crescent Land Drainage Sewer Installation and Pavement Reconstruction

B2. SUBMISSION DEADLINE

B2.1 The Submission Deadline is 12:00 noon Winnipeg time, July 5, 2024.

B2.2 The Contract Administrator or the Manager of Purchasing 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 Tender, 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.

B3.3 Responses to enquiries which, in the sole judgment of the Contract Administrator, require a correction to or a clarification of the Tender will be provided by the Contract Administrator to all Bidders by issuing an addendum.

B3.4 Responses to enquiries which, in the sole judgment of the Contract Administrator, do not require a correction to or a clarification of the Tender will be provided by the Contract Administrator only to the Bidder who made the enquiry.

B3.5 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.

B3.6 Any enquiries concerning submitting through MERX should be addressed to:
MERX Customer Support
Phone: 1-800-964-6379
Email: merx@merx.com

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 Tender 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 Tender, 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.
- B5.3 Addenda will be available on the MERX website at www.merx.com.
- B5.4 The Bidder is responsible for ensuring that they have received all addenda and is advised to check the MERX website for addenda regularly and shortly before the Submission Deadline, as may be amended by addendum.
- B5.5 The Bidder shall acknowledge receipt of each addendum in Paragraph 10 of Form A: Bid/Proposal. Failure to acknowledge receipt of an addendum may render a Bid non-responsive.
- B5.6 Notwithstanding B3, enquiries related to an Addendum may be directed to the Contract Administrator indicated in D5.

B6. SUBSTITUTES

- B6.1 The Work is based on the Plant, Materials and methods specified in the Tender.
- 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 their 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, to the Bidder who requested approval of the substitute.
- B6.6.1 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 they wish 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 their 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.
- 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;
 - (c) Form G1: Bid Bond and Agreement to Bond.
- B7.2 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.
- B7.3 The Bid shall be submitted electronically through MERX at www.merx.com.
- B7.3.1 Bids will **only** be accepted electronically through MERX.
- B7.4 Bidders are advised that inclusion of terms and conditions inconsistent with the Tender document, including the General Conditions, will be evaluated in accordance with B17.1(a).

B8. BID

- B8.1 The Bidder shall complete Form A: Bid/Proposal, making all required entries.
- B8.2 Paragraph 2 of Form A: Bid/Proposal shall be completed in accordance with the following requirements:
- (a) if the Bidder is a sole proprietor carrying on business in their own name, their 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 their 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/Proposal, the Bidder shall identify a contact person who is authorized to represent the Bidder for purposes of the Bid.
- B8.4 Paragraph 13 of Form A: Bid/Proposal shall be signed in accordance with the following requirements:
- (a) if the Bidder is a sole proprietor carrying on business in their 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 their duly authorized officer or officers;

- (d) if the Bidder is carrying on business under a name other than their 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/Proposal should be entered below such signatures.

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.

B9.1.1 Prices stated on Form B: Prices shall not include any costs which may be incurred by the Contractor with respect to any applicable funding agreement obligations as outlined in D37. Any such costs shall be determined in accordance with D37.

B9.2 The quantities listed on Form B: Prices are to be considered approximate only. The City will use said quantities for the purpose of comparing Bids.

B9.3 The quantities for which payment will be made to the Contractor are to be determined by the Work actually performed and completed by the Contractor, to be measured as specified in the applicable Specifications.

B9.4 Payments to Non-Resident Contractors are subject to Non-Resident Withholding Tax pursuant to the Income Tax Act (Canada).

B9.5 The Bidder shall enter the Total Bid Price from Form B: Prices into the Total Bid Price field in MERX.

B9.5.1 Bidders are advised that the calculation indicated in B17.4 will prevail over the Total Bid Price entered in MERX.

B9.6 Form B: Prices is organized into Parts: Part 1 of the Work and Part 2 of the Work. Bidders shall provide a total price for each Part and, on the summary sheet, a Total Bid Price consisting of the sum of prices for Part 1 and Part 2.

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) Bituminex Paving Ltd. – Hydro excavation services to expose existing utilities on University Crescent from Dysart Road to Thatcher Drive.

B10.3 Additional Material:

- (a) Drawing (Appendix B) – Elevation of existing utilities on University Crescent from Dysart Road to Thatcher Drive.

B11. CONFLICT OF INTEREST AND GOOD FAITH

B11.1 Further to C3.2, Bidders, by responding to this Tender, declare that no Conflict of Interest currently exists, or is reasonably expected to exist in the future.

- B11.2 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 their participation in the Tender 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 Tender process) of strategic and/or material relevance to the Tender 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.
- B11.3 In connection with their Bid, each entity identified in B11.2 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 Tender 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.
- B11.4 Without limiting B11.3, the City may, in their 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 their 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 their sole discretion, to avoid or mitigate the impact of such Conflict of Interest.
- B11.5 Without limiting B11.3, 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 their sole discretion:
- (a) disqualify a Bidder that fails to disclose a perceived, potential or actual Conflict of Interest of the Bidder or any of their 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 their 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 B11.4 to avoid or mitigate a Conflict of Interest; and
 - (d) disqualify a Bidder if the Bidder, or one of their 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.

B11.6 The final determination of whether a perceived, potential or actual Conflict of Interest exists shall be made by the City, in their sole discretion.

B12. QUALIFICATION

B12.1 The Bidder shall:

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

B12.2 The Bidder and any proposed Subcontractor (for the portion of the Work proposed to be subcontracted to them) shall:

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

B12.3 The Bidder and/or any proposed Subcontractor (for the portion of the Work proposed to be subcontracted to them) shall:

- (a) have successfully carried out work similar in nature, scope and value to the Work; and
- (b) be fully capable of performing the Work required to be in strict accordance with the terms and provisions of the Contract; and
- (c) have a written workplace safety and health program if required pursuant to The Workplace Safety and Health Act (Manitoba);
- (d) have completed the Accessible Customer Service online training required by the Accessibility for Manitobans Act (AMA) (see B12.5 and D8).

B12.4 Further to B12.3(c), the Bidder shall, within five (5) Business Days of a request by the Contract Administrator, provide proof satisfactory to the Contract Administrator that the Bidder/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™) in the form of:
 - (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, Purchasing Division website at <http://www.winnipeg.ca/matmgt/>).

B12.5 Further to B12.3(d), the Bidder acknowledges they and all Subcontractors have obtained training required by the Accessibility for Manitobans Act (AMA) available at [Accessibility Training](#) for anyone that may have any interaction with the public on behalf of the City of Winnipeg.

- B12.6 The Bidder shall submit, within three (3) Business Days of a request by the Contract Administrator, proof satisfactory to the Contract Administrator of the qualifications of the Bidder and of any proposed Subcontractor.
- B12.7 The Bidder shall provide, on the request of the Contract Administrator, full access to any of the Bidder's equipment and facilities to confirm, to the Contract Administrator's satisfaction, that the Bidder's equipment and facilities are adequate to perform the Work.

B13. BID SECURITY

- B13.1 The Bidder shall include in their Bid Submission bid security in the form of a digital bid bond, in the amount of at least ten percent (10%) of the Total Bid Price, and agreement to bond of a company registered to conduct the business of a surety in Manitoba, in Form G1: Bid Bond and Agreement to Bond, available on The City of Winnipeg, Corporate Finance, Purchasing Division website at <https://www.winnipeg.ca/MatMgt/templates/files/eBidsecurity.pdf>.
- B13.2 Bid security shall be submitted in a digital format meeting the following criteria:
- (a) The version submitted by the Bidder must have valid digital signatures and seals;
 - (b) The version submitted by the Bidder must be verifiable by the City with respect to the totality and wholeness of the bond form, including: the content; all digital signatures and digital seals; with the surety company, or an approved verification service provider of the surety company.
 - (c) The version submitted must be viewable, printable and storable in standard electronic file formats compatible with the City, and in a single file. Allowable formats include pdf.
 - (d) The verification may be conducted by the City immediately or at any time during the life of the bond and at the discretion of the City with no requirement for passwords or fees.
 - (e) The results of the verification must provide a clear, immediate and printable indication of pass or fail regarding B13.2(a).
- B13.3 Bonds failing the verification process will not be considered to be valid and the bid shall be determined to be non-responsive in accordance with B17.1(a).
- B13.4 Bonds passing the verification process will be treated as original and authentic.
- B13.4.1 If the Bidder submits alternative bids, the bid security shall be in the amount of the specified percentage of the highest Total Bid Price submitted.
- B13.5 The bid security of the successful Bidder and the next two lowest evaluated responsive and responsible Bidders will be released by the City when a Contract for the Work has been duly formed with the successful Bidder and the contract securities are furnished as provided herein. The bid securities of all other Bidders will be released when a Contract is awarded.
- B13.6 The bid securities of all Bidders will be released by the City as soon as practicable following notification by the Contract Administrator to the Bidders that no award of Contract will be made pursuant to the Tender.

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 MERX website at www.merx.com.
- B14.3 After award of Contract, the name(s) of the successful Bidder(s) and their Contract amount(s) will be available on the MERX website at www.merx.com.

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 11 of Form A: Bid/Proposal.

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 until a Contract for the Work has been duly formed and the contract securities have been furnished as herein provided, but any Bid shall be deemed to have lapsed unless accepted within the time period specified in Paragraph 11 of Form A: Bid/Proposal.

B16. WITHDRAWAL OF BIDS

B16.1 A Bidder may withdraw their Bid without penalty prior to the Submission Deadline.

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 Tender, or acceptable deviation therefrom (pass/fail);
- (b) qualifications of the Bidder and the Subcontractors, if any, pursuant to B12 (pass/fail);
- (c) Evaluated Total Bid Price;
- (d) economic analysis of any approved alternative pursuant to B6.

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.

B17.2.1 Any bid with an apparent imbalance between the unit prices in Part 1 and Part 2 may be determined to be non-responsive and rejected by the Award Authority in their sole discretion, acting reasonably.

B17.3 Further to B17.1(b), the Award Authority shall reject any Bid submitted by a Bidder who does not demonstrate, in their Bid or in other information required to be submitted, that they are qualified.

B17.4 Further to B17.1(c), the Evaluated 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 may determine the unit price by dividing the Amount (extended price) by the approximate quantity, for the purposes of evaluation and payment.

B17.4.2 Bidders are advised that the calculation indicated in B17.4 will prevail over the Evaluated Total Bid Price entered in MERX.

B17.4.3 Further to B17.1(c), the Evaluated Total Bid Price shall include Site Occupancy costs as shown on Form B: Prices. Site Occupancy costs shall be the Initial Span bid in Working Days, multiplied by the Site Occupancy Unit Price listed in Form B: Prices.

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 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 their 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 If funding for the Work is provided to the City of Winnipeg by the Government of Manitoba and/or the Government of Canada and/or any other third party, Bidders are advised that the terms of D37 shall immediately take effect upon confirmation of such funding, regardless of when funding is confirmed.

B18.4 Where an award of Contract is made by the City, the award shall be made to the qualified Bidder submitting the lowest evaluated responsive Bid, in accordance with B17.

B18.4.1 Following the award of contract, a Bidder will be provided with information related to the evaluation of their Bid upon written request to the Contract Administrator.

B18.5 As noted in D3 and identified in Form B: Prices, the Work of Part 2 will be contingent upon an executed agreement between the City and the third party. If an agreement is not executed between the City and the third party, the City shall have the right to eliminate all of Part 2 Work in accordance with D3.

PART C - GENERAL CONDITIONS

C0. GENERAL CONDITIONS

- C0.1 The *General Conditions for Construction* (Revision 2020-01-31) 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, Purchasing Division website at http://www.winnipeg.ca/matmgt/gen_cond.stm
- C0.2 A reference in the Tender 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. FORM OF CONTRACT DOCUMENTS

D2.1 Notwithstanding C4.1(c) and C4.4, the Contract Documents will be provided to the Contractor electronically and there will be no requirement for execution and return to the City by the Contractor. Accordingly, the provisions under C4.4(a) and C4.4(b) are no longer applicable.

D3. SCOPE OF WORK

D3.1 The Work to be done under the Contract shall consist of two parts:

- (a) Part 1 – City Funded Work
- (b) Part 2 – Third Party Funded Work.

Part 1 – City Funded Work

D3.2 Part 1 – City Funded Work shall consist of:

- (a) Land Drainage Sewer Installation
 - (i) University Crescent from Dysart Road to Thatcher Drive
- (b) Concrete Pavement Reconstruction
 - (i) University Crescent Northbound from Dysart Road to Thatcher Drive
 - (ii) University Crescent Southbound from Dysart Road to Markham Road
- (c) Traffic Signal Conduit and Base Installation and Associated Works
 - (i) University Crescent and Sifton Road – Installation
 - (ii) University Crescent and Markham Road – Installation
 - (iii) University Crescent Existing Pedestrian Corridor South of Markham Road – Removal
- (d) Water and Waste Work
 - (i) Insulation of Water Mains

Part 2 – Third Party Funded Work

D3.3 Part 2 – Third Party Funded Work shall consist of:

- (a) 1800 mm Land Drainage Sewer Installation
 - (i) University Crescent 185 m south of Thatcher Drive
- (b) Concrete Pavement Reconstruction
 - (i) University Crescent Southbound Left Turn Lane to Sifton Road

D3.4 The City currently has no executed agreement with the third party for Part 2 of the Work, but is anticipating executing an agreement by August 30, 2024. Part 2 of the Work is contingent upon the execution of the agreement.

D3.4.1 Further to C7.1, should an agreement not be executed, the City shall have the right to eliminate all of Part 2, and the Contract Price will be reduced accordingly.

- D3.4.2 Further to C7.5, C7.5.1, and C7.6, a reduction in the Contract Price pursuant to D3.4.1 shall not be considered in calculating the aggregate reduction in the Contract Price for purposes of C7.5.
- D3.4.3 If all or any portion of Part 2 is eliminated pursuant to D3.4.1, the Charged Days specified by the Contractor per D25 for Substantial Performance of the Work will be adjusted in accordance with D25.5.1.
- D3.5 The major components of the Work are as follows:
- (a) Land Drainage Sewer Installation
 - (i) Installation of land drainage sewers ranging in size from 300 mm to 1800 mm
 - (ii) Connection of the new land drainage sewer to the land drainage sewer installed in the lands east of University Crescent by UM Properties
 - (iii) Installation of catch basins and connections to the new land drainage sewers
 - (iv) Relocate hydrants
 - (v) Temporary surface restorations and related works
 - (b) Concrete Pavement Reconstruction
 - (i) Construction of temporary median detours
 - (ii) Removal of existing trees
 - (iii) Removal of existing asphalt and concrete pavements
 - (iv) Excavation
 - (v) Compaction of existing subgrade
 - (vi) Placement of separation/filtration geotextile fabric and geogrid
 - (vii) Placement and compaction of suitable site material
 - (viii) Placement of sub-base and base course materials
 - (ix) Construction of 250 mm concrete pavement (plain-dowelled) with slip-form paving equipment
 - (x) Construction of 200 mm concrete pavement (reinforced)
 - (xi) Construction of 180 mm barrier curb
 - (xii) Construction of 180 mm modified barrier curb
 - (xiii) Construction of safety curb and safety median
 - (xiv) Construction of bullnoses, monolithic medians and safety medians
 - (xv) Construction of sidewalk
 - (xvi) Construction of 75 mm Type IA asphalt bicycle lanes
 - (xvii) Adjustment of manholes and water valves
 - (xviii) Placement of Type IA asphalt for tie-ins
 - (xix) Boulevard grading
 - (xx) Ditch grading
 - (xxi) Sodding
 - (c) Traffic Signal Conduit and Base Installation and Associated Works
 - (i) Installation of conduit
 - (ii) Installation of concrete bases
 - (iii) Installation of service boxes
 - (iv) Removal of concrete bases
 - (v) Removal of service boxes
 - (vi) Cutovers
 - (d) Water and Waste Work
 - (i) Insulation of water main at Sifton Road

D4. SITE INVESTIGATION DUE DILIGENCE AND RISK

D4.1 Notwithstanding C3.1, the Contractor acknowledges that the site investigation reports and other site information included in this Tender have been provided to it and may be relied upon by the Contractor to the extent that the Contractor uses Good Industry Practice in interpreting such report(s) and site information and carries out the Work in accordance with Good Industry Practice based upon such report(s) and the information contained in them and such other site information. In the event that a site condition related to:

- (a) the location of any utility which can be determined from the records or other information available at the offices of any public authority or person, including a municipal corporation and any board or commission thereof, having jurisdiction or control over the utility;
- (b) the Site conditions, including but not limited to subsurface hazardous materials or other concealed physical conditions;
- (c) the location, nature, quality or quantity of the materials to be removed or to be employed in the performance of the Work;
- (d) the nature, quality or quantity of the Plant needed to perform the Work;
- (e) all matters concerning access to the Site, power supplies, location of existing services, utilities or materials necessary for the completion of the Work; and
- (f) all other matters which could in any way affect the performance of the Work;

that could not have been “properly inferable”, “readily apparent” and readily discoverable” using Good Industry Practice by the Contractor, results in additional Work which is a direct result of this newly discovered site condition, such additional Work will be considered by the City under Changes in Work.

D5. DEFINITIONS

D5.1 When used in this Tender:

- (a) “**Charged Day**” means the unit of measurement of time for Site Occupancy. A Charged Day is a Working Day as defined in C1.1(tt) and includes a Saturday, Sunday, or a statutory or civic holiday when the Contractor chooses to undertake Work requiring the presence of the Contract Administrator and/or City resources.
- (b) “**Final Span**” means the number of Charged Days assessed for Site Occupancy as calculated pursuant to D25.5
- (c) “**Initial Span**” means the number of Charged Days bid by the Contractor for Site Occupancy to achieve **Substantial Performance** on Form B Prices;
- (d) “**Site Occupancy**” means a system for monitoring and administering progress of the Work. Site Occupancy involves a daily Contract administration cost (Site Occupancy cost) for each Charged Day the Contractor is able to Work. The Contractor bids the number of anticipated Charged Days to achieve **Substantial Performance**, and depending on the actual Charged Days to achieve **Substantial Performance**, there may be a bonus payment or deduction applied to the final payment.
- (e) “**Supply Chain Disruption**” means an inability by the Contractor to obtain goods or services from third parties necessary to perform the Work of the Contract within the schedule specified therein, despite the Contractor making all reasonable commercial efforts to procure same. Contractors are advised that increased costs do not, in and of themselves, amount to a Supply Chain Disruption.

D6. CONTRACT ADMINISTRATOR

D6.1 The Contract Administrator is AECOM Canada Ltd., represented by:

Ryan Cunningham, P.Eng.
Roads Manager

Telephone No. (204) 792-6742

Email Address ryan.cunningham1@aecom.com

D6.2 At the pre-construction meeting, Ryan Cunningham, P.Eng. will identify additional personnel representing the Contract Administrator and their respective roles and responsibilities for the Work.

D7. CONTRACTOR'S SUPERVISOR

D7.1 At the pre-construction meeting, the Contractor shall identify their designated supervisor and any additional personnel representing the Contractor and their respective roles and responsibilities for the Work.

D7.2 At least two (2) Business Days prior to the commencement of any Work on the site, the Contractor shall provide the Contract Administrator with a phone number where the supervisor identified in D7.1 or an alternate can be contacted twenty-four (24) hours a day to respond to an emergency.

D8. ACCESSIBLE CUSTOMER SERVICE REQUIREMENTS

D8.1 The Accessibility for Manitobans Act (AMA) imposes obligations on The City of Winnipeg to provide accessible customer service to all persons in accordance with the Customer Service Standard Regulation ("CSSR") to ensure inclusive access and participation for all people who live, work or visit Winnipeg regardless of their abilities.

D8.1.1 The Contractor agrees to comply with the accessible customer service obligations under the CSSR and further agrees that when providing the Goods or Services or otherwise acting on the City of Winnipeg's behalf, shall comply with all obligations under the AMA applicable to public sector bodies.

D8.1.2 The accessible customer service obligations include, but are not limited to:

- (a) providing barrier-free access to goods and services;
- (b) providing reasonable accommodations;
- (c) reasonably accommodating assistive devices, support persons, and support animals;
- (d) providing accessibility features e.g. ramps, wide aisles, accessible washrooms, power doors and elevators;
- (e) inform the public when accessibility features are not available;
- (f) providing a mechanism or process for receiving and responding to public feedback on the accessibility of all goods and services; and
- (g) providing adequate training of staff and documentation of same.

D9. UNFAIR LABOUR PRACTICES

D9.1 Further to C3.2, the Contractor declares that in bidding for the Work and in entering into this Contract, the Contractor and any proposed Subcontractor(s) conduct their respective business in accordance with established international codes embodied in United Nations Universal Declaration of Human Rights (UDHR) <https://www.un.org/en/about-us/universal-declaration-of-human-rights> International Labour Organization (ILO) [https://www.ilo.org/global/lang--en/index.htm](https://www.ilo.org/global/lang-en/index.htm) conventions as ratified by Canada.

- D9.2 The City of Winnipeg is committed and requires its Contractors and their Subcontractors, to be committed to upholding and promoting international human and labour rights, including fundamental principles and rights at work covered by ILO eight (8) fundamental conventions and the United Nations Universal Declaration of Human Rights which includes child and forced labour.
- D9.3 Upon request from the Contract Administrator, the Contractor shall provide disclosure of the sources (by company and country) of the raw materials used in the Work and a description of the manufacturing environment or processes (labour unions, minimum wages, safety, etc.).
- D9.4 Failure to provide the evidence required under D9.3, may be determined to be an event of default in accordance with C18.
- D9.5 In the event that the City, in its sole discretion, determines the Contractor to have violated the requirements of this section, it will be considered a fundamental breach of the Contract and the Contractor shall pay to the City a sum specified by the Contract Administrator in writing (“Unfair Labour Practice Penalty”). Such a violation shall also be considered an Event of Default, and shall entitle the City to pursue all other remedies it is entitled to in connection with same pursuant to the Contract.
- D9.5.1 The Unfair Labour Practice Penalty shall be such a sum as determined appropriate by the City, having due regard to the gravity of the Contractor’s violation of the above requirements, any cost of obtaining replacement goods/ services or rectification of the breach, and the impact upon the City’s reputation in the eyes of the public as a result of same.
- D9.5.2 The Contractor shall pay the Unfair Labour Practice Penalty to the City within thirty (30) Calendar Days of receiving a demand for same in accordance with D9.5. The City may also hold back the amount of the Unfair Labour Practice Penalty from payment for any amount it owes the Contractor.
- D9.5.3 The obligations and rights conveyed by this clause survive the expiry or termination of this Contract, and may be exercised by the City following the performance of the Work, should the City determine, that a violation by the Contractor of the above clauses has occurred following same. In no instance shall the Unfair Labour Practice Penalty exceed the total of twice the Contract value.

D10. FURNISHING OF DOCUMENTS

- D10.1 Upon award of the Contract, the Contractor will be provided with ‘issued for construction’ Contract Documents electronically, including Drawings in PDF format only.

SUBMISSIONS

D11. AUTHORITY TO CARRY ON BUSINESS

- D11.1 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.

D12. SAFE WORK PLAN

- D12.1 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 Documents, if applicable.

D12.2 The Safe Work Plan shall 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, Purchasing Division website at <http://www.winnipeg.ca/matmgt/safety/default.stm>

D12.3 Notwithstanding B12.4 at any time during the term of the Contract, the City may, at their sole discretion and acting reasonably, require an updated COR Certificate or Annual Letter of good Standing. A Contractor, who fails to provide a satisfactory COR Certificate or Annual Letter of good Standing, will not be permitted to continue to perform any Work.

D13. INSURANCE

D13.1 The Contractor shall provide and maintain the following insurance coverage:

- (a) commercial general liability insurance, in the amount of at least five million dollars (\$5,000,000.00) 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, broad form property damage cover 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) an all risks installation floater carrying adequate limits to cover all supplies and/or materials intended to enter into and form part of any installation;
- (d) property insurance for all mobile offices, portable toilets, machinery and equipment.

D13.2 Deductibles shall be borne by the Contractor.

D13.3 All subcontractors performing work on the Project shall provide the contractor with evidence of insurance as outlined in D13.1(a) and D13.1(b) above and be registered with Workers Compensation Board of Manitoba and maintain insurance and workers compensation coverage throughout the performance of the Work, the Contractor shall provide the Contract Administrator with evidence of the same prior to the commencement of any Work by the subcontractors.

D13.4 All policies shall be taken out with insurers duly licensed to carry on business in the Province of Manitoba.

D13.5 The Contractor shall provide the City Solicitor 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 the C4.1 for the return of the executed Contract Documents, as applicable.

D13.6 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.

D14. CONTRACT SECURITY

D14.1 The Contractor shall provide and maintain the performance bond and the labour and material payment bond 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; and
- (b) a labour and material payment bond of a company registered to conduct the business of a surety in Manitoba, in the form attached to these Supplemental Conditions (Form H2: Labour and Material Payment Bond), in an amount equal to fifty percent (50%) of the Contract Price.

- D14.1.1 Where the contract security is a performance bond, it may be submitted in hard copy or digital format. If submitted in digital format the contract security must meet the following criteria:
- (a) the version submitted by the Contractor must have valid digital signatures and seals;
 - (b) the version submitted by the Contractor must be verifiable by the City with respect to the totality and wholeness of the bond form, including: the content; all digital signatures and digital seals; with the surety company, or an approved verification service provider of the surety company.
 - (c) the version submitted must be viewable, printable and storable in standard electronic file formats compatible with the City, and in a single file. Allowable formats include pdf.
 - (d) the verification may be conducted by the City immediately or at any time during the life of the bond and at the discretion of the City with no requirement for passwords or fees.
 - (e) the results of the verification must provide a clear, immediate and printable indication of pass or fail regarding D14.1(b).
- D14.1.2 Digital bonds failing the verification process will not be considered to be valid and may be determined to be an event of default in accordance with C18.1. If a digital bond fails the verification process, the Contractor may provide a replacement bond (in hard copy or digital format) within seven (7) Calendar Days of the City's request or within such greater period of time as the City in their discretion, exercised reasonably, allows.
- D14.1.3 Digital bonds passing the verification process will be treated as original and authentic.
- D14.2 The Contractor shall provide the Contract Administrator identified in D5 with the required performance and labour and material payment bonds within seven (7) Calendar Days of notification of the award of the Contract by way of an award letter 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 Documents, if applicable.
- D14.3 The Contractor shall, as soon as practicable after entering into a contract with a Subcontractor:
- (a) give the Subcontractor written notice of the existence of the labour and material payment bond in D14.1(b); and
 - (b) post a notice of the bond and/or a copy of that bond in a conspicuous location at the Site of the Work.

D15. SUBCONTRACTOR LIST

- D15.1 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 or prior to a pre-construction meeting, or 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 the C4.1 for the return of the executed Contract Documents, if applicable.

D16. DETAILED WORK SCHEDULE

- D16.1 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 the General Conditions for the return of the executed Contract Documents, as applicable.
- D16.2 The detailed work schedule shall consist of the following:
- (a) a Gantt chart for the Work acceptable to the Contract Administrator.

D16.3 Further to D16.2(a), the Gantt chart shall show the time on a weekly basis, required to carry out the Work of each trade, or specification division. The time shall be on the horizontal axis, and the type of trade shall be on the vertical axis.

D17. REQUIREMENTS FOR SITE ACCESSIBILITY PLAN

D17.1 The Contractor shall provide the Contract Administrator with an Accessibility 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 Documents, if applicable.

D17.2 The Accessibility Plan shall demonstrate how the Contractor will accommodate the safe passage of pedestrians and cyclists in accordance with the Manual of Temporary Traffic Control, the Contract Drawings, Staging Plans, and Streets By-Law No. 1481/77 at all times for the duration of the Construction. Unless noted in the Contract, the Accessibility Plan must include a written plan for the following:

- (a) How the Contractor will maintain at least one crossing in each direction for each intersection (one north/south crosswalk and one east/west crosswalk).
- (b) How the Contractor will maintain access to bus stops within the site.
- (c) How the Contractor will maintain access to pedestrian corridors and half signals.
- (d) How the Contractor will maintain cycling facilities.
- (e) How the Contractor will maintain access to residents and businesses unless otherwise noted in the Contract.
- (f) Any required detour signage at adjacent crossings to facilitate sidewalk or active transportation pathway closures.

D17.3 The Accessibility Plan may also include figures, sketches, or drawings to demonstrate the proposed plan.

D17.4 The Accessibility Plan shall include written details on how the Contractor intends to review, maintain, and document all items related to the Accessibility Plan on-site during Construction, including, but not limited to:

- (a) Signage
- (b) Temporary Ramping
- (c) Transit Stops
- (d) Detour Signage

D17.5 At minimum, the Contractor shall review the site conditions on a daily basis to ensure that all features related to the Accessibility Plan are in place. The site review is intended to correct deficiencies as a result of unforeseen events such as wind, traffic, or the general public. Deficiencies that are direct result of the Contractors actions must be corrected immediately.

D17.6 Any changes to the Accessibility Plan must be approved by the Contract Administrator.

D17.7 Upon request from the Contract Administrator, the Contractor shall provide records demonstrating that the site has been maintained.

D17.8 Deficiencies as a direct result of actions by the Contractor that are not immediately corrected and/or failure to produce records that demonstrate that the site was maintained in compliance with the Accessibility Plan may result in a pay adjustment via the monthly Progress Payment. The rate of pay adjustment will be as per the following schedule:

- (a) First Offence – A warning will be issued and documented in the weekly or bi-weekly site meeting.
- (b) Second Offence – A field instruction to immediately correct the site will be issued by the Contract Administrator.

- (c) Third and subsequent Offences – A pay reduction will be issued in the amount of \$250.00 per instance and per day.

SCHEDULE OF WORK

D18. COMMENCEMENT

- D18.1 The Contractor shall not commence any Work until they are in receipt of an award letter from the Award Authority authorizing the commencement of the Work.
- D18.2 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 D11;
 - (ii) evidence of the workers compensation coverage specified in C6.15;
 - (iii) the twenty-four (24) hour emergency response phone number specified in D7.2.
 - (iv) the Safe Work Plan specified in D12;
 - (v) evidence of the insurance specified in D13;
 - (vi) the contract security specified in D14;
 - (vii) the subcontractor list specified in D15;
 - (viii) the detailed work schedule specified in D16;
 - (ix) the Requirements for Site Accessibility Plan specified in D17; and
 - (x) the direct deposit application form specified in D32.
 - (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.
- D18.3 The Contractor shall not commence the Work on the Site before August 6, 2024, and shall commence the Work on Site no later than August 19, 2024, as directed by the Contract Administrator and weather permitting.
- D18.4 The Contractor shall not commence Part 2 of the Work as described in D3 and identified in Form B: Prices, unless prior to August 30, 2024, they have received notification from the Contract Administrator that the City has received notice of sufficient funding from the third party.
- D18.5 The City intends to award this Contract by August 2, 2024.
- D18.5.1 If the actual date of award is later than the intended date, the Charged Days specified by the Contractor per D25 for Substantial Performance of the Work may be adjusted by the Contract Administrator.

D19. WORKING DAYS

- D19.1 Further to C1.1(tt);
- D19.1.1 The Contract Administrator will determine daily if a Working Day has elapsed and will record their assessment. On a weekly basis the Contract Administrator will provide the Contractor with a record of the Working Days assessed for the preceding week. The Contractor shall sign each report signifying that they agree with the Contract Administrator's determination of the Working Days assessed for the report period.
- D19.1.2 Work done to restore the Site to a condition suitable for Work, shall not be considered "work" as defined in the definition of a Working Day.
- D19.1.3 When the Work includes two or more major types of Work that can be performed under different atmospheric conditions, the Contract Administrator shall consider all major types of Work in determining whether the Contractor was able to work in assessing Working Days.

D19.1.4 A Charged Day means the unit of measurement of time for Site Occupancy. A Charged Day is a Working Day as defined in C1.1(tt) and includes a Saturday, Sunday, or a statutory or civic holiday when the Contractor chooses to undertake Work requiring the presence of the Contract Administrator and/or City resources.

D20. RESTRICTED WORK HOURS

D20.1 Further to 3.10 of CW 1130, the Contractor shall require written permission forty-eight (48) hours in advance from the Contract Administrator for any work to be performed between 2000 hours and 0700 hours, or on Saturdays, Sundays, Statutory Holidays and or Civic Holidays.

D21. WORK BY OTHERS

D21.1 Further to C6.25, the Contractor's attention is directed to the fact that other Contractors, the personnel of Utilities and the staff of the City may be working within the project limit, approach roadway, adjacent roadways or right-of-way. The activities of these agencies may coincide with the Contractors execution of work and it will be the Contractor's responsibility to cooperate to the fullest extent with other personnel working in the area, and such cooperation is an obligation of the Contractor under the terms of Contract.

D21.2 Work by others on or near the Site will include but not necessarily be limited to:

- (a) Manitoba Hydro (Distribution)
 - (i) Removal of distribution poles and street lights
 - (ii) Installation of distribution lines related to North Campus Lands development (east of University Crescent)
 - (iii) Installation of street lighting for University Crescent – east side from Dysart Road to Thatcher Drive and west side from Dysart Road to Markham Road
- (b) Manitoba Hydro (Gas)
 - (i) Installation of gas lines related to North Campus Lands development (east of University Crescent)
 - (ii) Lowering and/or rock wrapping of gas mains/services
 - (iii) Safety watch for gas mains as required
- (c) Telus
 - (i) Adjustment of manholes / service pits
- (d) City of Winnipeg Geomatics Branch
 - (i) Various works on survey monuments
- (e) City of Winnipeg Traffic Services Branch
 - (i) Supply of signs as necessary
 - (ii) Completion of line painting
 - (iii) Setup of traffic control for the Manitoba Marathon and Winnipeg Blue Bombers games
- (f) City of Winnipeg Traffic Signals Branch
 - (i) Installation of traffic signal and pedestrian crossing poles, and wiring at Sifton Road and Markham Road
 - (ii) Removal of existing pedestrian crossing poles from the existing corridor on University Crescent south of Markham Road
 - (iii) Temporary adjustment of existing traffic signal heads at Sifton Road to accommodate two-way traffic on one side of University Cr
 - (iv) Temporary adjustment of existing pedestrian corridor lights at Thatcher Drive to accommodate two-way traffic on one side of University Cr
- (g) City of Winnipeg, Transit – Temporary relocation of bus stops;
- (h) City of Winnipeg Water and Waste Department

- (i) Inspection of main line water valves
- (i) Winnipeg Blue Bombers/Valour Football Club – Traffic, cyclist and pedestrian control during games at Princess Auto Stadium;

D21.3 Further to D21.1 the Contractor shall cooperate and coordinate all activities with all parties performing required Work by Others. The Contractor must include and accommodate Work by Others identified in D21.2 or additional parties, in their construction schedule as per D16 and accommodate the necessary area on Site required for the Work by Others to complete the Work.

D22. SEQUENCE OF WORK

D22.1 Further to C6.1, the sequence of work shall be as follows:

D22.1.1 The Work shall be divided into three stages, which are identified on the Construction Staging plans listed in E1.4. **Stage 1 is intended to be completed in 2024 and Stage 2 and 3 are intended to be completed in 2025.** Stages are further subdivided into major items of work.

D22.1.2 **Stage 1** – Installation of New Land Drainage Sewer from Dysart Road to Thatcher Drive

- (i) Install new land drainage sewer manholes and pipe and complete connections
- (ii) Install new catch basins, sewer service pipe and complete connections
- (iii) Complete temporary pavement restoration for excavations where traffic is required to be restored

D22.1.3 **Stage 2** – Construction of northbound lanes from Dysart Road to Thatcher Drive

- (i) Construct temporary median crossovers
- (ii) Commence installation of new traffic signals at Sifton Road and Markham Road intersections
- (iii) Remove existing pedestrian corridor south of Markham Road
- (iv) Remove existing pavement, curbs, medians and sidewalks
- (v) Relocate hydrants
- (vi) Remove existing culverts
- (vii) Remove existing trees
- (viii) Complete excavation for roadway
- (ix) Install subdrains and connect to catch basins
- (x) Remove unsuitable material from existing ditch and place and compact suitable site material
- (xi) Construct 250 mm plain-dowelled concrete pavement and 200 mm reinforced concrete pavement
- (xii) Construct barrier curbs, safety curbs, median slabs and bullnoses
- (xiii) Construct asphalt tie-ins
- (xiv) Remove existing sidewalks
- (xv) Complete excavation and place base materials for asphalt pathways and sidewalks
- (xvi) Construct 100 mm concrete sidewalk
- (xvii) Construct 75 mm Type IA asphalt bicycle lanes
- (xviii) Restore boulevards

D22.1.4 **Stage 3** – Construction of southbound lanes from Dysart Road to Markham Road

- (i) Complete installation of new traffic signals at Sifton Road and Markham Road intersections
- (ii) Remove existing pavement, curbs and medians
- (iii) Remove existing culverts

- (iv) Complete excavation for roadway
 - (v) Remove unsuitable material from existing ditch and place and compact suitable site material
 - (vi) Construct 250 mm plain-dowelled concrete pavement and 200 mm reinforced concrete pavement
 - (vii) Construct barrier curbs, median slabs, safety medians and bullnoses
 - (viii) Construct asphalt tie-ins
 - (ix) Remove existing asphalt pathways and sidewalks
 - (x) Complete excavation and place base materials for asphalt pathways and sidewalks
 - (xi) Construct 100 mm concrete sidewalk
 - (xii) Construct 75 mm Type IA asphalt bicycle lanes
 - (xiii) Restore temporary median crossovers
 - (xiv) Restore boulevards
- D22.1.5 Immediately following the completion of each stage, the Contractor shall clean up the Site and remove all plant, surplus material, waste and debris, other than that left by the City or other Contractors.
- D22.1.6 **Catch basins installed in Stage 1 and located within existing pavement areas shall be temporarily plated and excavations restored to match existing grade of adjacent pavement. Frames and covers are to be installed during permanent pavement construction which shall be included in the unit price for catch basin installation. No payment will be made for temporary plating other than for supply and installation of Type IA asphalt pavement (Tie-ins) for restorations.**
- D22.1.7 **Catch basins installed in Stage 1 and located within existing boulevard/ditch areas may require temporary adjustment to match existing boulevard/ditch grades. No payment will be made for matching grades of existing boulevard/ditch areas and for adjusting the catch basins from temporary grade to final grade.**
- D22.1.8 **Manholes installed in Stage 1 and located within existing pavement/pathway/sidewalk areas shall have frames and covers installed to match existing grade of adjacent pavement/pathway/sidewalk. No payment will be made for adjusting frames and covers to match existing grades and for adjusting the manhole from temporary grade to final grade. Supply and installation of Type IA asphalt pavement (Tie-ins) for restorations will be paid for.**
- D22.1.9 **Manholes installed in Stage 1 and located within existing boulevard/ditch areas may require temporary adjustment to match existing boulevard/ditch grades. No payment will be made for matching grades of existing boulevard/ditch areas and for adjusting the manholes from temporary grade to final grade.**

D23. SUBSTANTIAL PERFORMANCE

- D23.1 When the Contractor considers the Work to be substantially performed, the Contractor shall arrange, attend and assist in the inspection of the Work with the Contract Administrator for purposes of verifying Substantial Performance. Any defects or deficiencies in the Work noted during that inspection shall be remedied by the Contractor at the earliest possible instance and the Contract Administrator notified so that the Work can be re-inspected.
- D23.2 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.

D24. TOTAL PERFORMANCE

- D24.1 The Contractor shall achieve Total Performance within ten (10) consecutive Working Days of the date of Substantial Performance.
- D24.2 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 re-inspected.
- D24.3 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.

D25. SITE OCCUPANCY

MEASUREMENT

- D25.1 Time shall be of the essence of the Contract. The Contractor shall provide the necessary material, labour and equipment to ensure that **Substantial Performance** will be achieved within the consecutive amount of Charged Days bid for Initial Span for Site Occupancy, which may be modified to Final Span as stated in D25.5. Failure to achieve **Substantial Performance** of the Work within the Initial Span (or Final Span) will result in the deduction of Site Occupancy costs, as further defined herein. The total amount of Charged Days will be measured in whole numbers.
- D25.2 Charged Days will be assessed per C1.1(tt) and D19 except for the following:
- (a) Days not worked due to Force Majeure;
 - (b) Days between Substantial Performance and Total Performance where regular Working Days will be assessed. Liquidated Damages will be assessed for not achieving Total Performance per the requirements identified in D22.1.9.
- D25.3 Failure of the Contractor to commence Work as indicated in D18 may result in the assessment of Charged Days until the Contractor commences the Work on site.
- D25.4 Further to D25.2, the Contractor will be permitted one (1) suspension of Charged Days for the 2024 seasonal shutdown. The Contractor shall submit a request for suspension of Charged Days for approval by the Contract Administrator. Charged Days will not be assessed from the day after the final Charged Day of 2024 to the day prior to the first Charged Day of 2025. During this period, the Site must be made secure, roadways completely operational, and all existing facilities and work in progress be protected from weather or other potentially harmful effects.
- D25.5 Final Span
- D25.5.1 Extensions to the Initial Span will determine the Final Span and will be calculated as follows:
- (a) Final Span = $(F \div A) \times I$;
 - (b) Where: Final Span = adjusted number of Charged Days allowed (a fraction of a day will be rounded up to a full day);
 - (i) F = Final Contract Amount (excluding Site Occupancy)
 - (ii) I = Initial Span of the Contract
 - (iii) A = Total amount at Award (excluding Site Occupancy and Provisional Items)
 - (c) If the Final Contract Amount (excluding Site Occupancy) is less than the Total amount at Award (excluding Site Occupancy and Provisional Items), no reduction to the Initial Span will be made, except if there is a material reduction in Work (including removal of Part 2 of the Contract), as determined by the Contract Administrator.

SITE OCCUPANCY PAYMENT

D25.6 Payment for Site Occupancy for the Contract will be made as follows:

- (a) If the number of Charged Days equals the Final Span, no payment or deduction will be made.
- (b) If the number of Charged Days is less than the Final Span, a payment equal to the Contract Unit Price per Charged Day multiplied by the difference between the Final Span and the actual number of Charged Days, to a maximum amount of two percent (2%) of the Total Bid Price, will be made to the Contractor.
- (c) If the number of Charged Days exceeds the Final Span, a deduction equal to the Contract Unit Price per Charged Day multiplied by the difference between the actual number of Charged Days and the Final Span will be made from the payment to the Contractor.

D26. LIQUIDATED DAMAGES

D26.1 If the Contractor fails to achieve Total Performance within 10 Working Days of the date of Substantial Performance, the Contractor shall pay the City two-thousand dollars (\$2,000) per Working Day for each and every Working Day following the day fixed herein for Total Performance during which such failure continues.

D26.2 The amount specified for liquidated damages in D26.1 is based on a genuine pre-estimate of the City's damages in the event that the Contractor does not achieve Total Performance by the day fixed herein for same.

D26.3 The City may reduce any payment to the Contractor by the amount of any liquidated damages assessed.

D27. SUPPLY CHAIN DISRUPTION SCHEDULE DELAYS

D27.1 The City acknowledges that the schedule for this Contract may be impacted by the Supply Chain Disruption. Commencement and progress of the Work shall be performed by the Contractor with due consideration to the delivery requirements and schedule identified in the Contract, in close consultation with the Contract Administrator.

D27.2 If the Contractor is delayed in the performance of the Work by reason of the Supply Chain Disruption, the Work schedule may be adjusted by a period of time equal to the time lost due to such delay and costs related to such delay will be determined as identified herein.

D27.3 A minimum of seven (7) Calendar Days prior to the commencement of Work, the Contractor shall declare whether a Supply Chain Disruption will affect the start date. The Contractor shall provide sufficient evidence that the delay is directly related to ordering of Material or Goods, production and/or manufacturing schedules or availability of staff as appropriate s.

D27.4 For any delay related to Supply Chain Disruption and identified after Work has commenced, the Contractor shall within seven (7) Calendar Days of becoming aware of the anticipated delay declare the additional delay and shall provide sufficient evidence as indicated in D27.3. Failure to provide this notice will result in no additional time delays being considered by the City.

D27.5 The Work schedule, including the durations identified in D23 and D24 where applicable, will be adjusted to reflect delays accepted by the Contract Administrator. No additional payment will be made for adjustment of schedules except where seasonal work, not previously identified in the Contract, is carried over to the following construction season.

D27.6 Where Work not previously identified is being carried over solely as a result of delays related to Supply Chain Disruption, as confirmed by the Contract Administrator, the cost of temporary works to maintain the Work in a safe manner until Work recommences, will be considered by the Contract Administrator. Where the Work is carried over only partially due to Supply Chain

Disruption, a partial consideration of the cost of temporary works will be considered by the Contract Administrator.

D27.7 Any time or cost implications as a result of Supply Chain Disruption and in accordance with the above, as confirmed by the Contract Administrator, shall be documented in accordance with C7.

D28. SCHEDULED MAINTENANCE

D28.1 The Contractor shall perform the following scheduled maintenance in the manner and within the time periods required by the Specifications:

- (a) Reflective crack maintenance as specified in CW 3250-R7;
- (b) Sod maintenance as specified in CW 3510-R10.

D28.2 Determination of Substantial Performance and Total Performance shall be exclusive of scheduled maintenance identified herein. All scheduled maintenance shall be completed prior to the expiration of the warranty period. Where the scheduled maintenance cannot be completed during the warranty period, the warranty period shall be extended for such period of time as it takes the Contractor to complete the scheduled maintenance.

CONTROL OF WORK

D29. JOB MEETINGS

D29.1 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 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.

D29.2 The Contract Administrator reserves the right to cancel any job meeting or call additional job meetings whenever they deem it necessary.

D30. PRIME CONTRACTOR – THE WORKPLACE SAFETY AND HEALTH ACT (MANITOBA)

D30.1 Further to C6.26, 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).

D31. THE WORKPLACE SAFETY AND HEALTH ACT (MANITOBA) – QUALIFICATIONS

D31.1 Further to B12.4, the Contractor/Subcontractor must, throughout the term of the Contract, have a Workplace Safety and Health Program meeting the requirements of The Workplace Safety and Health Act (Manitoba). At any time during the term of the Contract, the City may, at their sole discretion and acting reasonably, require updated proof of compliance, as set out in B12.4.

MEASUREMENT AND PAYMENT

D32. PAYMENT

D32.1 Further to C12, the City shall make payments to the Contractor by direct deposit to the Contractor's banking institution, and by no other means. Payments will not be made until the Contractor has made satisfactory direct deposit arrangements with the City. Direct deposit application forms are at https://winnipeg.ca/finance/files/Direct_Deposit_Form.pdf.

D32.2 Further to D25, no payment will be made for Site Occupancy, other than as set out in D25.6

D33. FUEL PRICE ADJUSTMENT

D33.1 The Contract is subject to a fuel price adjustment which will be calculated monthly based on eligible Work completed utilizing the following mathematical formulas;

- (a) where the price of fuel has increased - $((CFI/BFI)-1.15) \times Q \times FF$; and
- (b) where the price of fuel has decreased - $((CFI/BFI)-0.85) \times Q \times FF$; where
 - (i) BFI = base fuel index
 - (ii) CFI = current fuel index
 - (iii) FF = fuel factor
 - (iv) Q = monetary value of Work applied in the calculation.

D33.1.1 Eligible Work will be determined in accordance with D33.5.

D33.1.2 The base fuel index (BFI) will be the retail price of fuel identified on the Submission Deadline based on latest published "Monthly average retail prices for gasoline and fuel by geography" for Winnipeg, published by [Statistics Canada, Table 18-10-0001-01](#). The BFI is a blended rate based on 15% regular unleaded gasoline at self-service filling stations and 85% diesel fuel at self-service filling stations.

D33.1.3 The current fuel index (CFI) based on the above blended rate will be determined for each monthly progress estimate and applied on the following progress estimate as a change order once rates are published by Statistics Canada.

D33.1.4 A Fuel Factor (FF) rate of the monetary value of all eligible Work completed that month based on the Contract unit prices will be used to calculate the assumed apportioned cost of fuel.

D33.2 Fuel cost adjustments may result in additional payment to the Contractor or credit to the City within the Contract by way of a monthly change order.

D33.3 The fuel escalation or de-escalation adjustment will not be applied if the CFI is within $\pm 15\%$ of the BFI.

D33.4 Fuel escalation adjustments will not be considered beyond the Substantial Performance/Critical Stages except where those dates/Working Days are adjusted by change order. Fuel de-escalation adjustments will apply for Work that extends beyond the dates/Working Days specified for Substantial Performance/Critical Stages.

D33.5 The Fuel Factor (FF) rates will be set as follows:

- (a) The Fuel Factor rate shall be set at 2.7% of the monetary value of all Work based on unit prices except for the portions of the Contract identified below;
 - (i) The Fuel Factor will not apply to Water and Waste Work identified on Form B: Prices.

WARRANTY

D34. WARRANTY

D34.1 Notwithstanding C13.2, the warranty period shall begin on the date of Total Performance and shall expire two (2) years thereafter unless extended pursuant to C13.2.1 or C13.2.2, in which case it shall expire when provided for thereunder.

D34.2 Notwithstanding C13.2 or D34.1, the Contract Administrator may permit the warranty period for a portion or portions of the Work to begin prior to the date of Total Performance if:

- (a) a portion of the Work cannot be completed because of unseasonable weather or other conditions reasonably beyond the control of the Contractor but that portion does not prevent the balance of the Work from being put to its intended use.

D34.2.1 In such case the date specified by the Contract Administrator for the warranty period to begin shall be substituted for the date specified in C13.2 for the warranty period to begin.

DISPUTE RESOLUTION

D35. DISPUTE RESOLUTION

D35.1 If the Contractor disagrees with any opinion, determination, or decision of the Contract Administrator, the Contractor shall act in accordance with the Contract Administrator's opinion, determination, or decision unless and until same is modified by the process followed by the parties pursuant to D35.

D35.2 The entire text of C21.4 is deleted, and amended to read: "Intentionally Deleted"

D35.3 The entire text of C21.5 is deleted, and amended to read:

- (a) If Legal Services has determined that the Disputed Matter may proceed in the Appeal Process, the Contractor must, within ten (10) Business Days of the date of the Legal Services Response Letter, submit their written Appeal Form, in the manner and format set out on the City's Purchasing Website, to the Chief Administrative Officer, and to the Contract Administrator. The Contractor may not raise any other disputes other than the Disputed Matter in their Appeal Form.

D35.4 Further to C21, prior to the Contract Administrator's issuance of a Final Determination, the following informal dispute resolution process shall be followed where the Contractor disagrees with any opinion, determination, or decision of the Contract Administrator ("Dispute"):

- (a) In the event of a Dispute, attempts shall be made by the Contract Administrator and the Contractor's equivalent representative to resolve Disputes within the normal course of project dealings between the Contract Administrator and the Contractor's equivalent representative.
- (b) Disputes which in the reasonable opinion of the Contract Administrator or the Contractor's equivalent representative cannot be resolved within the normal course of project dealings as described above shall be referred to a without prejudice escalating negotiation process consisting of, at a minimum, the position levels as shown below and the equivalent Contractor representative levels:
 - (i) The Contract Administrator;
 - (ii) Supervisory level between the Contract Administrator and applicable Department Head;
 - (iii) Department Head.

D35.4.1 Names and positions of Contractor representatives equivalent to the above City position levels shall be determined by the Contractor and communicated to the City at the pre-commencement or kick off meeting.

D35.4.2 As these negotiations are not an adjudicative hearing, neither party may have legal counsel present during the negotiations.

D35.4.3 Both the City and the Contractor agree to make all reasonable efforts to conduct the above escalating negotiation process within twenty (20) Business Days, unless both parties agree, in writing, to extend that period of time.

D35.4.4 If the Dispute is not resolved to the City and Contractor's mutual satisfaction after discussions have occurred at the final escalated level as described above, or the time period set out in D35.4.3, as extended if applicable, has elapsed, the Contract Administrator will issue a Final Determination as defined in C1.1(v), at which point the parties will be governed by the Dispute Resolution process set out in C21.

INDEMNITY

D36. INDEMNITY

- D36.1 Indemnity shall be as stated in C17.
- D36.2 Notwithstanding C17.1, the Contractor shall save harmless and indemnify the City in the amount of twice the Contract Price or five million dollars (\$5,000,000), whichever is greater, against all costs, damages or expenses arising from actions, claims, demands and proceedings, by whomsoever brought, made or taken as a result of negligent acts or negligent omissions of the Contractor, their Subcontractors, employees or agents in the performance or purported performance of the Work, and more particularly from:
- (a) accidental injury to or death of any person whether retained by or in the employ of the contractor or not, arising directly or indirectly by reason of the performance of the Work, or by reason of any trespass on or damage to property;
 - (b) damage to any property owned in whole or in part by the City, or which the City by duty or custom is obliged, directly or indirectly, in any way or to any degree, to construct, repair or maintain;
 - (c) damage to, or trespass or encroachment upon, property owned by persons other than the City;
 - (d) any claim for lien or trust claim served upon the City pursuant to The Builders' Liens Act;
 - (e) failure to pay a Workers Compensation assessment, or Federal or Provincial taxes;
 - (f) unauthorized use of any design, device, material or process covered by letters patent, copyright, trademark or trade name in connection with the Work;
 - (g) inaccuracies in any information provided to the City by the Contractor.
- D36.3 Further to C17, The City shall save harmless and indemnify the Contractor in the amount of twice the Contract Price or five million dollars (\$5,000,000), whichever is greater, against all costs, damages or expenses arising from actions, claims, demands and proceedings, by whomsoever brought, made or taken as a result of negligent acts or negligent omissions of the City, their employees or agents in the performance of its obligation under the Contract.

THIRD PARTY AGREEMENTS

D37. FUNDING AND/OR CONTRIBUTION AGREEMENT OBLIGATIONS

- D37.1 In the event that funding for the Work of the Contract is provided to the City of Winnipeg by the Government of Manitoba and/or the Government of Canada, the following terms and conditions shall apply, as required by the applicable funding agreements.
- D37.2 Further to D37.1, in the event that the obligations in D37 apply, actual costs legitimately incurred by the Contractor as a direct result of these obligations ("Funding Costs") shall be determined by the actual cost to the Contractor and not by the valuation method(s) outlined in C7.4. In all other respects Funding Costs will be processed in accordance with Changes in Work under C7.
- D37.3 For the purposes of D37:
- (a) **"Government of Canada"** includes the authorized officials, auditors, and representatives of the Government of Canada; and
 - (b) **"Government of Manitoba"** includes the authorized officials, auditors, and representatives of the Government of Manitoba.
- D37.4 Modified Insurance Requirements
- D37.4.1 If not already required under the insurance requirements identified in D13, the Contractor will be required to provide wrap-up liability insurance in an amount of no less than two

million dollars (\$2,000,000) inclusive per occurrence. Such policy will be written in the joint names of the City, Contractor, Consultants and all sub-contractors and sub-consultants and include twelve (12) months completed operations. The Government of Manitoba and their Ministers, officers, employees, and agents shall be added as additional insureds.

- D37.4.2 If not already required under the insurance requirements identified in D13, the Contractor will be required to provide builders' risk insurance (including boiler and machinery insurance, as applicable) providing all risks coverage at full replacement cost, or such lower level of insurance that the City may identify on a case-by-case basis, such as an installation floater.
- D37.4.3 The Contractor shall obtain and maintain third party liability insurance with minimum coverage of two million dollars (\$2,000,000.00) per occurrence on all licensed vehicles operated at the Site. In the event that this requirement conflicts with another licensed vehicle insurance requirement in this Contract, then the requirement that provides the higher level of insurance shall apply.
- D37.4.4 Further to D13.5, insurers shall provide satisfactory Certificates of Insurance to the Government of Manitoba prior to commencement of Work as written evidence of the insurance required. The Certificates of Insurance must provide for a minimum of thirty (30) days' prior written notice to the Government of Manitoba in case of insurance cancellation.
- D37.4.5 All policies must be taken out with insurers licensed to carry on business in the Province of Manitoba.

D37.5 Indemnification By Contractor

- D37.5.1 In addition to the indemnity obligations outlined in C17 of the General Conditions for Construction, the Contractor agrees to indemnify and save harmless the Government of Canada and the Government of Manitoba and each of their respective Ministers, officers, servants, employees, and agents from and against all claims and demands, losses, costs, damages, actions, suit or other proceedings brought or pursued in any manner in respect of any matter caused by the Contractor or arising from this Contract or the Work, or from the goods or services provided or required to be provided by the Contractor, except those resulting from the negligence of any of the Government of Canada's or the Government of Manitoba's Ministers, officers, servants, employees, or agents, as the case may be.
- D37.5.2 The Contractor agrees that in no event will Canada or Manitoba, their respective officers, servants, employees or agents be held liable for any damages in contract, tort (including negligence) or otherwise, for:
- (a) any injury to any person, including, but not limited to, death, economic loss or infringement of rights;
 - (b) any damage to or loss or destruction of property of any person; or
 - (c) any obligation of any person, including, but not limited to, any obligation arising from a loan, capital lease or other long term obligation;
- in relation to this Contract or the Work.

D37.6 Records Retention and Audits

- D37.6.1 The Contractor shall maintain and preserve accurate and complete records in respect of this Contract and the Work, including all accounting records, financial documents, copies of contracts with other parties and other records relating to this Contract and the Work during the term of the Contract and for at least six (6) years after Total Performance. Those records bearing original signatures or professional seals or stamps must be preserved in paper form; other records may be retained in electronic form.
- D37.6.2 In addition to the record keeping and inspection obligations outlined in C6 of the General Conditions for Construction, the Contractor shall keep available for inspection and audit at all reasonable times while this Contract is in effect and until at least six (6) years after Total Performance, all records, documents, and contracts referred to in D37.6.1 for inspection, copying and audit by the City of Winnipeg, the Government of Manitoba and/or the

Government of Canada and their respective representatives and auditors, and to produce them on demand; to provide reasonable facilities for such inspections, copying and audits, to provide copies of and extracts from such records, documents, or contracts upon request by the City of Winnipeg, the Government of Manitoba, and/or the Government of Canada and their respective representatives and auditors, and to promptly provide such other information and explanations as may be reasonably requested by the City of Winnipeg, the Government of Manitoba, and/or the Government of Canada from time-to-time.

D37.7 Other Obligations

- D37.7.1 The Contractor consents to the City providing a copy of the Contract Documents to the Government of Manitoba and/or the Government of Canada upon request from either entity.
- D37.7.2 If the Lobbyists Registration Act (Manitoba) applies to the Contractor, the Contractor represents and warrants that it has filed a return and is registered and in full compliance with the obligations of that Act, and covenants that it will continue to comply for the duration of this Contract.
- D37.7.3 The Contractor shall comply with all applicable legislation and standards, whether federal, provincial, or municipal, including (without limitation) labour, environmental, and human rights laws, in the course of providing the Work.
- D37.7.4 The Contractor shall properly account for the Work provided under this Contract and payment received in this respect, prepared in accordance with generally accepted accounting principles in effect in Canada, including those principles and standards approved or recommended from time-to-time by the Chartered Professional Accountants of Canada or the Public Sector Accounting Board, as applicable, applied on a consistent basis.
- D37.7.5 The Contractor represents and warrants that no current or former public servant or public office holder, to whom the Value and Ethics Code for the Public Sector, the Policy on Conflict of Interest and Post Employment, or the Conflict of Interest Act applies, shall derive direct benefit from this Contract, including any employment, payments, or gifts, unless the provision or receipt of such benefits is in compliance with such codes and the legislation.
- D37.7.6 The Contractor represents and warrants that no member of the House of Commons or of the Senate of Canada or of the Legislative Assembly of Manitoba is a shareholder, director or officer of the Contractor or of a Subcontractor, and that no such member is entitled to any benefits arising from this Contract or from a contract with the Contractor or a Subcontractor concerning the Work.

FORM H1: PERFORMANCE BOND
(See D14)

KNOW EVERYONE 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

TENDER NO. 252-2024

UNIVERSITY CRESCENT LAND DRAINAGE SEWER INSTALLATION AND PAVEMENT
RECONSTRUCTION

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: LABOUR AND MATERIAL PAYMENT BOND
(See D14)

KNOW EVERYONE BY THESE PRESENTS THAT

his/its heirs, executors, administrators, successors or assigns (hereinafter called the "Principal"), and

his/its heirs, executors, administrators, successors or assigns (hereinafter called the "Surety"), are held and firmly bound unto **THE CITY OF WINNIPEG** (hereinafter called the "Obligee"), for the use and benefit of claimants as herein below defined, in the amount of

_____ dollars (\$_____)

of lawful money of Canada, for the payment whereof we, the Principal and the Surety jointly and severally bind ourselves firmly by these presents.

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

TENDER NO. 252-2024

UNIVERSITY CRESCENT LAND DRAINAGE SEWER INSTALLATION AND PAVEMENT
RECONSTRUCTION

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 promptly make payment to all claimants as hereinafter defined, for all labour, service and material used or reasonably required for use in the performance of the Contract, then this obligation shall be void, otherwise it shall remain in full force and effect subject, however, to the following conditions:

- (a) A claimant is defined as one having a direct contract with the Principal for labour, service and material, or any of them, used or reasonably required for use in the performance of the contract, labour, service and material being construed to include that part of water, gas, power, light, heat, oil, gasoline, telephone service or rental of equipment (but excluding rent of equipment where the rent pursuant to an agreement is to be applied towards the purchase price thereof) directly applicable to the Contract;
- (b) The above-named Principal and Surety hereby jointly and severally agree with the Obligee that every claimant as herein defined, who has not been paid in full before the expiration of a period of ninety (90) days after the date on which the last of such claimant's work, labour or service was done or performed, or materials were furnished by such claimant, may sue on this bond, prosecute the suit to final judgment for such sum or sums as may be justly due claimant, and have execution thereon;
- (c) No suit or action shall be commenced hereunder by any claimant
 - (i) unless claimant shall have given written notice to the Principal and the Surety above-named, within one hundred and twenty (120) days after such claimant did or performed the last of the work, labour or service, or furnished the last of the materials for which said claim is made, stating with substantial accuracy the amount claimed and the name of the party to whom the materials were furnished, or for whom the work, labour or service was done or performed. Such notice shall be served by mailing the same by registered mail to the Principal, and Surety, at any place where an office is regularly maintained for the transaction of business, or served in any manner in which legal process may be served in the Province of Manitoba;

- (ii) after the expiration of one (1) year following the date on which Principal ceased work on said Contract; including work performed under the guarantees provided in the Contract;
 - (iii) other than in a court of competent jurisdiction in the Province of Manitoba.
- (d) The amount of this bond shall be reduced by and to the extent of any payment or payments made in good faith hereunder, inclusive of the payment by Surety of mechanics liens which may be filed of record against said improvement, whether or not claim for the amount of such lien be presented under and against this bond.
- (e) The Surety shall not be liable for a greater sum than the specified penalty of this bond.

The Principal and Surety hereby agree that The Guarantors' Liability Act (Manitoba) shall apply to this Bond.

IN TESTIMONY WHEREOF, the Principal has hereunto set its hand affixed its seal, and the Surety has caused these presents to be sealed and with its corporate seal duly attested by the authorized signature of its signing authority this

_____ 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 J: SUBCONTRACTOR LIST
(See D15)

UNIVERSITY CRESCENT LAND DRAINAGE SEWER INSTALLATION AND PAVEMENT
RECONSTRUCTION

<u>Portion of the Work</u>	<u>Name</u>	<u>Address</u>
<i>SURFACE WORKS:</i>		
Supply of Materials:		
Concrete		
Asphalt		
Base Course (limestone)		
Sub-Base (limestone)		
Separation Filtration Geotextile Fabric/Geogrid		
Sod		
Installation/Placement:		
Concrete		
Asphalt		
Base Course and Sub-Base		
Separation Filtration Geotextile Fabric/Geogrid		
Sod		
Joint Sealant		
<i>UNDERGROUND WORKS</i>		
Supply of Materials:		
Land Drainage Sewer Pipe		
Land Drainage Sewer Manholes		
Sewer Service Pipe		
Catch Basins		
Frames and Covers		
Water Main Pipe		
Hydrant Assemblies		
Installation/Placement:		
Land Drainage Sewer Pipe		
Land Drainage Sewer Manholes		
Sewer Service Pipe		

FORM J: SUBCONTRACTOR LIST
(See D15)

UNIVERSITY CRESCENT LAND DRAINAGE SEWER INSTALLATION AND PAVEMENT
RECONSTRUCTION

<u>Portion of the Work</u>	<u>Name</u>	<u>Address</u>
Catch Basins		
Water Main Pipe		
Hydrant Assemblies		
<i>TRAFFIC SIGNAL WORKS</i>		
Installation/Placement:		
Conduit, Bases, Service Boxes		

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 their 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, Purchasing 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 Tender shall govern over *The City of Winnipeg Standard Construction Specifications*.
- E1.3 Bidders are reminded that requests for approval of substitutes as an approved equal or an approved alternative shall be made in accordance with B6. In every instance where a brand name or design specification is used, the City will also consider approved equals and/or approved alternatives in accordance with B6.
- E1.4 The following are applicable to the Work:

<u>Drawing No.</u>	<u>Drawing Name/Title</u>	<u>Drawing (Original) Sheet Size</u>
UNIVERSITY CRESENT CONCRETE PAVEMENT RECONSTRUCTION		
CT-00	Cover Sheet and Location Plan	A1
CT-01	Construction Staging and Traffic Management – Stage 1	A1
CT-02	Construction Staging and Traffic Management – Stage 2	A1
CT-03	Construction Staging and Traffic Management – Stage 3	A1
CT-04	Horizontal Geometry	A1
CT-05	Plan – Dysart Road to Station 0+545	
CT-06	Plan-Profile – Sta. 0+545 to Sta. 0+670	A1
CT-07	Plan-Profile – Sta. 0+670 to Sta. 0+790	A1
CT-08	Plan-Profile – Sta. 0+790 to Sta. 0+900	A1
CT-09	Plan-Profile – Sta. 0+900 to Sta. 1+000	A1
CT-10	Plan-Profile – Sta. 1+000 to Sta. 1+110	A1
CT-11	Plan-Profile – Sta. 1+110 to Sta. 1+203.50	A1
CT-12	Cross Sections and Details	A1
UNIVERSITY CRESCENT LAND DRAINAGE SEWER INSTALLATION		
CU-01	Drawing Index, Design Notes, Legend and Abbreviations	A1
CU-02	MH 18m N. of N. P.L. Bohemier Trail to 4m N. of N. P.L. Sifton Road	A1
CU-03	4m N. of N. P.L. Sifton Road to 30.7m S. of S. P.L. Markham Road	A1
CU-04	30.7m S. of S. P.L. Markham Road to 45.2m N. of N. P.L. Markham Road	A1
CU-05	45.2m N. of N. P.L. Markham Road to 155.2m N. of N. P.L. Markham Road	A1
CU-06	155.2m N. of N. P.L. Markham Road to 265.2m N. of N. P.L. Markham Road	A1
CU-07	265.2m N. of N. P.L. Markham Road to 44.4m S. of S. P.L. Thatcher Drive	A1

<u>Drawing No.</u>	<u>Drawing Name/Title</u>	<u>Drawing (Original) Sheet Size</u>
CU-08	Proposed 1800 LDS Crossing - 177.6m N. of N. P.L. Markham Road	A1
CU-09	Detail Sheet	A1
UNIVERSITY CRESCENT TRAFFIC SIGNALS WORKS		
S-1910	Traffic Signals – Sifton Rd. & University Cres.	A1
S-2198	Traffic Signals – Markham Rd. & University Cres.	A1
SD-315.A	Signal Pole Base – Type PM	
SD-315.C	Signal Pole Base – Type POD	

E2. MOBILIZATION AND DEMOBILIZATION PAYMENT

DESCRIPTION

- E2.1 This Specification shall cover all operations relating to the mobilization and demobilization of the Contractor to the project location(s).
- E2.2 The Work to be done by the Contractor under this Specification shall include the furnishing of all superintendence, overhead, labour, materials, equipment, tools, supplies, and all things necessary for and incidental to the satisfactory performance and completion of all Works as hereinafter specified.
- E2.3 The inclusion of a payment item for the Work under this Specification shall not release or reduce the responsibilities of the Contractor under any other specification in this Contract.

SCOPE OF WORK

- E2.4 Further to C12 of the General Conditions, where Mobilization and Demobilization is included as a bid item, it shall consist of the following, as applicable:
 - (a) Mobilization shall include, but not be limited to:
 - (i) All activities and associated costs for transportation of the Contractor's personnel, equipment, and operating supplies to the site, and/or sites, and/or between sites;
 - (ii) Establishment of offices, buildings, other necessary general facilities and equipment parking/staging areas for the Contractor's operations at the site or sites;
 - (iii) Premiums paid for performance and payment bonds including coinsurance and reinsurance agreements as applicable;
 - (iv) General cleanup and housekeeping needed maintain a neat and orderly project site(s);
 - (v) Other job related items.
 - (b) Demobilization shall include, but not be limited to:
 - (i) All activities and costs for transportation of personnel, equipment, and supplies not used in the project from the site, and/or sites, and/or between sites;
 - (ii) Disassembly, removal, and site cleanup and restoration of offices, buildings, and other facilities assembled on the site and/or sites;
 - (iii) Repair of access roads, temporary haul roads, and equipment parking areas leaving the project site in the same or better condition than at the start of the project;
 - (iv) General cleanup and housekeeping needed to restore a neat and orderly project site.
- E2.5 Access to the site, equipment parking, and staging areas are limited to that shown on the drawings or as approved by the Contract Administrator.

MEASUREMENT AND PAYMENT

- E2.6 The lump-sum price for the Mobilization and Demobilization bid item shall not exceed five percent (5.00%) of the **Total Bid Price excluding Site Occupancy Costs on Form B: Prices**.
- E2.6.1 Further to B9, B17, C12 and E2.6, should the lump sum price exceed 5% of the **Total Bid Price excluding Site Occupancy Costs on Form B: Prices** the lump sum price will be reduced to 5% of the **Total Bid Price excluding Site Occupancy Costs on Form B: Prices**, and the Evaluated Total Bid Price will be determined using the reduced lump sum price and payment will be based on the reduced lump sum price.
- E2.7 Payment for Mobilization:
- (a) 60% of the lump-sum price will be paid to the Contractor for Mobilization on the first Progress Estimate for the Contract.
- E2.8 Payment for Demobilization:
- (a) The remaining 40% of the lump-sum price will be paid upon:
- (i) Restoration of the site and/or sites to the satisfaction of the Contract Administrator;
- (ii) Distribution of the Declaration of Total Performance.
- E2.9 Pay Reduction for Accessibility Plan
- (a) The Demobilization payment will be reduced by the number of pay adjustments incurred in accordance with D17 and as determined by the Contract Administrator.
- E2.10 Mobilization and Demobilization will be paid only once (to a maximum of 100%), regardless of the number of times the Contractor mobilizes to the site and/or sites.

E3. GEOTECHNICAL REPORT

- E3.1 Further to C3.1, the geotechnical report is provided to aid the Contractor's evaluation of the pavement structure and/or existing soil conditions. The geotechnical report is contained in Appendix 'A'.

E4. OFFICE FACILITIES

- E4.1 The Contractor shall supply office facilities meeting the following requirements:
- (a) The field office shall be for the exclusive use of the Contract Administrator.
- (b) The building shall be conveniently located near the site of the Work.
- (c) The building shall have a minimum floor area of 20 square metres, a height of 2.4m with two windows for cross ventilation and a door entrance with a suitable lock.
- (d) The building shall be suitable for all weather use. It shall be equipped with an electric heater and air conditioner so that the room temperature can be maintained between either 16-18°C or 24-25°C.
- (e) The building shall be adequately lighted with fluorescent fixtures and have a minimum of three wall outlets.
- (f) The building shall be furnished with one desk, one drafting table, table 3m X 1.2m, one stool, one four drawer legal size filing cabinet, and a minimum of 10 chairs.
- (g) A portable toilet shall be located near the field office building. The toilet shall have a locking door and be for the exclusive use of the Contract Administrator and other personnel from the City.
- (h) The field office building and the portable toilet shall be cleaned on a weekly basis immediately prior to each site meeting. The Contract Administrator may request additional cleaning when they deem it necessary.

- E4.2 The Contractor shall be responsible for all installation and removal costs, all operating costs, and the general maintenance of the office facilities.
- E4.3 The office facilities will be provided from the date of the commencement of the Work to the date of Total Performance.
- E4.4 On a one time basis, where directed by the Contract Administrator, the Contractor shall relocate the office facilities to a location more convenient for the remaining Work.

E5. LAND DRAINAGE SEWER INSTALLATION SITE DEVELOPMENT PLAN

- E5.1 The Contractor shall provide the Contract Administrator with a Site Development Plan for the land drainage sewer installation at least ten (10) Business Days prior to the commencement of any Work on the Site.
- (a) The Site Development Plan shall at a minimum include:
- (i) Work areas showing location of all required elements to complete the Work including fencing, gates, drainage and tree protection;
 - (ii) Material staging and laydown areas, including fencing and gates;
 - (iii) Staging areas for other Work elements;
 - (iv) Material Storage;
 - (v) Locations of shafts and excavations;
 - (vi) Office facility locations for Contract Administrator and Contractor; and
 - (vii) Temporary vehicle access/egress locations.
- E5.2 Measurement and Payment
- (a) The work specified herein will be considered incidental to the Work and will not be measured for payment. No additional payment will be made.

E6. SHOP DRAWINGS

- E6.1 Description
- (a) This Specification shall revise, amend, and supplement the requirements of CW 1110 of the City of Winnipeg's Standard Construction Specifications.
- (b) Submit all Shop Drawings in accordance with CW 1110 except as modified herein.
- (c) The Contractor shall submit specified Shop Drawings to the Contract Administrator for review. All submissions must be in metric units. Where data is in imperial units, the correct metric equivalent shall also be shown on all submissions.
- E6.2 Contractors Responsibility
- (a) Review shop drawings, product data and samples prior to submission and stamp and sign drawings indicating conformance to the Contract requirements.
- (b) Verify:
- (i) Field Measurements
 - (ii) Field Construction Criteria
 - (iii) Catalogue numbers and similar data
- (c) Coordinate each submission with requirements of Work and Contract Documents. Individual shop drawings will not be reviewed until all related drawings are available.
- (d) Notify Contract Administrator, in writing at time of submission, of deviations from requirements of Contract Documents.
- (e) Responsibility for deviations in submission from requirements of Contract Documents is not relieved by Contract Administrator's review of submission unless Contract Administrator gives written acceptance of specified deviations.

- (f) Responsibility for errors and omissions in submission is not relieved by Contract Administrator's review of submittals.
- (g) The Contractor shall make any corrections required by the Contract Administrator and shall resubmit the required number of corrected copies of Shop Drawings. The Contractor shall direct specific attention in writing or on resubmitted Shop Drawings to revisions other than the corrections requested by the Contract Administrator on previous submission.
- (h) After Contract Administrator's review and return of copies, distribute copies to Subcontractors as appropriate.
- (i) Maintain one (1) complete set of reviewed shop drawings, filed by Specification Section Number, at the Site of the Work for use and reference of the Contract Administrator and Subcontractors.

E6.3 Shop Drawings

- (a) Original drawings are to be prepared by Contractor, Subcontractor, Supplier, Distributor, or Manufacturer, which illustrate appropriate portion of Work; showing fabrication, layout, setting or erection details as specified in appropriate sections.
- (b) Shop drawings required to bear the seal of a Registered Professional Engineer in the Province of Manitoba are identified in their respective specification sections.

E6.4 Submission Requirements:

- (a) Schedule submissions at least ten (10) Calendar Days before dates reviewed submissions will be needed and allow for a ten (10) Calendar Day period for review by the Contract Administrator of each individual submission and re-submission, unless noted otherwise in the Contract Documents.
- (b) Submit one (1) digital copy (PDF) of shop drawings.
- (c) Accompany submissions with transmittal letter, containing:
 - (i) Date
 - (ii) Project title and Tender number
 - (iii) Contractor's name and address
 - (iv) Number of each shop drawing, product data and sample submitted
 - (v) Specification Section, Title, Number and Clause
 - (vi) Drawing Number and Detail/Section Number
 - (vii) Other pertinent data
- (d) Submissions shall include:
 - (i) Date and revision dates.
 - (ii) Project title and Tender number.
 - (iii) Name of:
 - (i) Contractor
 - (ii) Subcontractor
 - (iii) Supplier
 - (iv) Manufacturer
 - (v) Separate detailer when pertinent
 - (iv) Identification of product of material.
 - (v) Relation to adjacent structure or materials.
 - (vi) Field dimensions, clearly identified as such.
 - (vii) Specification section name, number and clause number or drawing number and detail/section number.
 - (viii) Applicable standards, such as CSA or CGSB numbers.
 - (ix) Contractor's stamp, initialed or signed, certifying review of submission, verification of field measurements and compliance with Contract Documents.

- (e) Shop Drawings not meeting the requirements of CW 1100 or the requirements specified herein will be returned to the Contractor without review for resubmission.
- (f) Shop drawing submissions will be limited to two (2) reviews per shop drawing. This shall include a review of the initial submission and a review of the revised submission. Costs associated with subsequent reviews will be charged to the Contractor.

E6.5 Measurement and Payment

- (a) The work specified herein will be considered incidental to the Work and will not be measured for payment. No additional payment will be made.

E7. ENVIRONMENTAL PROTECTION

E7.1 The Contractor shall plan and implement the Work of this Contract strictly in accordance with the requirements of the environmental protection measures as herein specified.

E7.2 The Contractor is advised that at least the following Acts, Regulations, and By-laws apply to the Work:

E7.2.1 Federal

- (a) Canadian Environmental Protection Act (CEPA) c.16;
- (b) Canadian Environmental Assessment Act (CEAA) c.37;
- (c) Transportation of Dangerous Goods Act and Regulations c.34; and
- (d) Migratory Birds Convention Act, 1994

E7.2.2 Provincial

- (a) The Dangerous Goods Handling and Transportation Act D12;
- (b) The Endangered Species Act E111;
- (c) The Environment Act c.E125;
- (d) The Fire Prevention Act F80;
- (e) The Manitoba Heritage Resources Act H39.1;
- (f) The Manitoba Noxious Weeds Act N110;
- (g) The Manitoba Nuisance Act N120;
- (h) The Public Health Act c.P210;
- (i) The Workplace Safety and Health Act W120; and
- (j) And current applicable associated regulations.

E7.2.3 Municipal

- (a) The City of Winnipeg By-law no. 1/2008;
- (b) The City of Winnipeg Waterway By-Law no. 5888/92; and
- (c) Other applicable Acts, Regulations and By-laws.

E7.3 The Contractor is advised that the following environmental protection measures apply to the Work.

E7.3.1 Materials Handling and Storage

- (a) Construction materials and debris shall be prevented from entering drainage pipes or channels.
- (b) Construction materials and debris shall also be prevented from accumulating on local roadways and sidewalks when tracked out of the Site by trucks hauling excavated materials.

- (c) The Contractor shall provide on-Site measures to mitigate the tracking of sediment off-Site and therefore reduce the amount of street cleaning required. These measures may take the form of a truck wheel wash (automated or manually operated) or other measures as approved by the Contract Administrator.

E7.3.2 Fuel Handling and Storage

- (a) The Contractor shall obtain all necessary permits from Manitoba Conservation for the handling and storage of fuel products and shall provide copies to the Contract Administrator.
- (b) All fuel handling and storage facilities shall comply with The Dangerous Goods and Transportation Act Storage and Handling of Petroleum Products Regulation and any local land use permits.
- (c) Fuels, lubricants, and other potentially hazardous materials as defined in The Dangerous Goods and Transportation Act shall be stored and handled within the approved storage areas.
- (d) The Contractor shall ensure that all fuel storage containers are inspected daily for leaks and spillage.
- (e) Products transferred from the fuel storage area(s) to specific Work Sites shall not exceed the daily usage requirement.
- (f) When servicing requires the drainage or pumping of fuels, lubricating oils or other fluids from equipment, a groundsheets of suitable material (such as HDPE) and size shall be spread on the ground to catch the fluid in the event of a leak or spill.
- (g) Refuelling of mobile equipment and vehicles shall take place at least 100 metres from a watercourse.
- (h) The area around storage Sites and fuel lines shall be distinctly marked and kept clear of snow and debris to allow for routine inspection and leak detection.
- (i) A sufficient supply of materials, such as absorbent material and plastic oil booms to clean up minor spills shall be stores nearby on-site. The Contractor shall ensure that additional material can be made available on short notice.

E7.3.3 Waste Handling and Disposal

- (a) The construction area shall be kept clean and orderly at all times during and at completion of construction.
- (b) At no time during construction shall personal or construction waste be permitted to accumulate for more than one day at any location on the construction site, other than at a dedicated storage area as may be approved by the Contract Administrator.
- (c) All resulting debris shall be deposited at a Waste Disposal Ground operating under the authority of Manitoba Regulation #150/91. Exceptions are liquid industrial and hazardous wastes which may require special disposal methods (see SC:21.4 D).
- (d) Indiscriminate dumping, littering, or abandonment shall not take place.
- (e) No on-site burning of waste is permitted.
- (f) Waste storage areas shall not be located so as to block natural drainage.
- (g) Run-off from a waste storage area shall not be allowed to cause siltation of a watercourse.
- (h) Waste storage areas shall be left in a neat and finished appearance and/or restored to their original condition to the satisfaction of the Contract Administrator.
- (i) Equipment shall not be cleaned near watercourses; contaminated water from onshore cleaning operations shall not be permitted to enter watercourses.

E7.3.4 Dangerous Goods/Hazardous Waste Handling and Disposal

- (a) Dangerous goods/hazardous waste are identified by, and shall be handled according to, The Dangerous Goods Handling and Transportation Act and Regulations.

- (b) The Contractor shall be familiar with The Dangerous Goods Handling and Transportation Act and Regulations.
- (c) The Contractor shall have on-site staff that is trained and certified in the handling of the dangerous/hazardous goods, when said dangerous/hazardous goods are being utilized on-site for the performance of the Work.
- (d) Different waste streams shall not be mixed.
- (e) Disposal of dangerous goods/hazardous wastes shall be at approved hazardous waste facilities.
- (f) Liquid hydrocarbons shall not be stored or disposed of in earthen pits on-site.
- (g) Used oils shall be stored in appropriate drums, or tankage, until shipment to waste oil recycling centres, incinerators, or secure disposal facilities approved for such wastes.
- (h) Used oil filters shall be drained, placed in suitable storage containers, and buried or incinerated at approved hazardous waste treatment and disposal facilities.
- (i) Dangerous goods/hazardous waste storage areas shall be located at least 100 metres away from the high water line and be diked.
- (j) Dangerous goods/hazardous waste storage areas shall not be located so as to block natural drainage.
- (k) Run-off from a dangerous goods/hazardous waste storage area shall not be allowed to cause siltation of a watercourse.
- (l) Dangerous goods/hazardous waste storage areas shall be left in a neat and finished appearance and/or restored to their original condition to the satisfaction of the Contract Administrator.

E7.3.5 Emergency Response

- (a) The Contractor shall ensure that due care and caution is taken to prevent spills.
- (b) The Contractor shall report all major spills of petroleum products or other hazardous substances with the potential for impacting the environment and threat to human health and safety to the Contract Administrator and Manitoba Environment, immediately after occurrence of the environmental accident, by calling the 24-hour emergency telephone phone number (204) 945-4888. The Contract Administrator shall also be notified.
- (c) The Contractor shall designate a qualified supervisor as the on-site emergency response coordinator for the project. The emergency response coordinator shall have the authority to redirect manpower in order to respond in the event of a spill.
- (d) The following actions shall be taken by the person in charge of the spilled material or the first person(s) arriving at the scene of a hazardous material accident or the on-site emergency response coordinator:
 - (i) Notify emergency-response coordinator of the accident:
 - identify exact location and time of accident
 - indicate injuries, if any
 - request assistance as required by magnitude of accident (Manitoba Environment 24-hour Spill Response Line (204) 945-4888, Police, Fire Department, Ambulance, company backup)
 - (ii) Attend to public safety:
 - ◆ stop traffic, roadblock/cordon off the immediate danger area
 - ◆ eliminate ignition sources
 - ◆ initiate evacuation procedures if necessary
 - (iii) Assess situation and gather information on the status of the situation, noting:
 - personnel on site
 - cause and effect of spill
 - estimated extent of damage

- amount and type of material involved
 - proximity to waterways and the Aqueduct
- (iv) If safe to do so, try to stop the dispersion or flow of spill material:
- approach from upwind
 - stop or reduce leak if safe to do so
 - dike spill material with dry, inert sorbent material or dry clay soil or sand
 - prevent spill material from entering waterways and utilities by diking
 - prevent spill material from entering manholes and other openings by covering with rubber spill mats or diking
- (v) Resume any effective action to contain, clean up, or stop the flow of the spilled product.
- (e) The emergency response coordinator shall ensure that all environmental accidents involving contaminants shall be documented and reported to the Manitoba Environment according to The Dangerous Goods Handling and Transportation Act Environmental Accident Report Regulation 439/87.
- (f) When dangerous goods are used on-site, materials for containment and cleanup of spill material (e.g. absorbent materials, plastic oil booms, and oversized recovery drums) shall be available on-site.
- (g) Minor spills of such substances that may be contained on land with no significant impact on the environment may be responded to with in-house resources without formal notification to Manitoba Environment.
- (h) City emergency response, 9-1-1, shall be used if other means are not available.

E7.4 Vegetation

- (a) Vegetation shall not be disturbed without written permission of the Contract Administrator. The Contractor shall protect plants which may be at risk of accidental damage. Such measures may include protective fencing or signage and shall be
- (b) Herbicides and pesticides shall not be used adjacent to any surface watercourses.
- (c) All landowners adjacent to the area of application of herbicides or pesticides shall be notified prior to the Work.
- (d) Trees and shrubs shall not be felled into watercourses.
- (e) Areas where vegetation is removed during clearing, construction, and decommissioning activities, shall be revegetated as soon as possible in accordance the requirements outlined herein, or as directed by the Contract Administrator.

E7.5 Measurement and Payment

- (a) The work specified herein will be considered incidental to the Work and will not be measured for payment. No additional payment will be made.

E8. PROTECTION OF EXISTING TREES

E8.1 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:

- (a) The Contractor shall not stockpile materials and soil or park vehicles and equipment on boulevards within 2 metres of trees.
- (b) Trees identified to be at risk by the Contract Administrator are to be strapped with 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. 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 the 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.

E8.2 All damage to existing trees caused by the Contractor's activities shall be repaired to the requirements and satisfaction of the Contract Administrator and the City Forester or their designate.

E8.3 No separate measurement or payment will be made for the protection of trees.

E8.4 Except as required in E8.1(c) and E8.1(e), Elm trees shall not be pruned at any time between April 1 and July 31.

E9. TRAFFIC CONTROL

E9.1 Further to 3.6, 3.7 and 3.8 of CW 1130:

- (a) Where directed by the Contract Administrator, the Contractor shall construct and maintain temporary asphalt ramps to alleviate vertical pavement obstructions such as manholes and planing drop-offs to the satisfaction of the Contract Administrator. Payment shall be in accordance with CW3410.
- (b) In accordance with the Manual of Temporary Traffic Control on City Streets (MTTC), the Contractor ("Construction Agency" in the Manual) shall be responsible for supplying, placing, maintaining and removing the appropriate temporary traffic control devices as specified by the MTTC, the Contract drawings, staging plans and traffic management plans or by the Traffic Management Branch of the City of Winnipeg Public Works Department. The Contractor shall bear all costs associated with the supply, placement, maintenance and removal of temporary traffic control devices by their own forces or Subcontractor.
- (c) In addition, the Contractor shall be responsible for supplying, removing, placing and maintaining all regulatory signing including but not limited to:
 - (i) Parking restrictions;
 - (ii) Stopping restrictions;
 - (iii) Turn restrictions;
 - (iv) Diamond lane removal;
 - (v) Full or directional closures on a Regional Street;
 - (vi) Traffic routed across a median;
 - (vii) Full or directional closure of a non-regional street where there is a requirement for regulatory signs (turn restrictions, bus stop relocations, etc.) to implement the closure.
- (d) The Contractor shall remove and stockpile any regulatory signage not required during construction such as, but not limited to, parking restrictions, turn restrictions and loading restrictions.

E9.2 Upon request from the Contract Administrator, the Contractor shall provide records demonstrating that the site has been maintained.

E9.3 Further to E9.1(c) and E9.1(d) the Contractor shall make arrangements with the Traffic Services Branch of the City of Winnipeg to reinstall the permanent regulatory signs after the Contract

Work is complete. The Contractor shall make arrangements to drop off the stockpiled materials to Traffic Services at 495 Archibald Street.

E9.4 Any changes to the approved traffic management plan must be submitted to the Contract Administrator a minimum of five (5) Working Days prior to the required change for approval.

E9.5 If the Contract Administrator determines that the Contractor is not performing Traffic Control in accordance with this specification, Traffic Services may be engaged to perform the Traffic Control. In this event the Contractor shall bear costs charged to the project by the Traffic Services Branch of the City of Winnipeg in connection with the required Works.

E10. TRAFFIC MANAGEMENT

E10.1 The traffic management drawings include details on traffic management, pedestrian/cyclist access and signage placement and are identified in E1.4.

E10.2 Maintain a minimum of one lane of northbound traffic and one lane of southbound traffic on University Crescent from Dysart Road to Thatcher Drive at all times, except during events at Princess Auto Stadium and the Manitoba Marathon (details are provided in E12 and E13).

E10.3 Maintain one lane of westbound traffic on Sifton Road during Stage 1 and Stage 2. Maintain two lanes of westbound traffic on Sifton Road during Stage 3.

E10.4 Maintain eastbound and westbound traffic on Markham Road during Stage 1 and Stage 2, including crossing of University Crescent, unless otherwise approved by the Contract Administrator. During Stage 3, maintain eastbound and westbound traffic on Markham Road, except that westbound traffic on Markham Road west of University Crescent will be prohibited.

E10.5 Maintain all turning movements at University Crescent and Markham Road during Stage 1 and Stage 2, unless otherwise approved by the Contract Administrator. During Stage 3, northbound left turns and southbound right turns on University Crescent will be prohibited, and westbound Markham Road east of University Crescent will be left or right turn only.

E10.6 Maintain eastbound and westbound traffic on Thatcher Drive at all times, including crossing of University Crescent, unless otherwise approved by the Contract Administrator.

E10.7 Maintain all turning movements at University Crescent and Thatcher Drive at all times, except northbound left turns shall be restricted for vehicles only (cyclists permitted) from 15:30 to 17:30 from Monday to Friday.

E10.8 When no work is being performed on site, non-essential lane closures will not be permitted.

E10.9 Flag persons may be necessary to maintain the flow of traffic during certain work operations.

E10.10 Should the Contractor be unable to maintain pedestrian or vehicular access to a residence or business, he/she shall review the planned disruption with the business or residence and the Contract Administrator, and take reasonable measures to minimize the impact. The Contractor shall provide a minimum of 24 hours notification to the affected residence or business and the Contract Administrator, prior to disruption of access.

E10.11 Pedestrian access must be maintained on one side of University Crescent at all times. Pedestrian crossings must be maintained as per the traffic management drawings.

E10.12 Ambulance/emergency vehicle access must be maintained at all times.

E10.13 Following completion of 2024 works, the Contractor shall supply and maintain the necessary signage and barricades for two lanes of traffic in each direction on University Crescent from Dysart Road to Thatcher Drive until construction resumes in 2025. The west sidewalk and bike path shall also remain open during this period. No measurement or payment will be made for this work.

E11. PEDESTRIAN SAFETY

E11.1 During the project, a temporary snow fence shall be installed along sidewalks and pathways that are required to be maintained during construction. The Contractor shall be responsible for maintaining the snow fence in a proper working condition. No measurement for payment shall be made for this work.

E12. REQUIREMENTS FOR EVENTS AT PRINCESS AUTO STADIUM

E12.1 Winnipeg Blue Bomber Games and Valour Football Club Games will take place at Princess Auto Stadium in 2024 and 2025. The Contractor shall meet the following requirements for Winnipeg Blue Bomber game days only (this is in addition to the minimum requirements for traffic, pedestrians and cyclists included in the tender document and the traffic management plans):

(a) Stage 1 - Ingress

- (i) Traffic Services to relocate Contractor traffic control devices to allow for two lanes of southbound traffic in the east gutter lane and west median lane University Crescent from Thatcher Drive to Dysart Road from 1.5 hours prior to game start to 1 hour following game start. Northbound traffic will not be permitted on University Cr from Dysart Road to Thatcher Drive during this period.
- (ii) Contractor to provide one lane on Sifton Road to make westbound left turns to southbound University Crescent from 1.5 hours prior to 1 hour following game start.
- (iii) Access to University Crescent from Chancellor Matheson Road to the south side of Dysart Road will be monitored by Winnipeg Blue Bombers. Winnipeg Transit buses permitted through southbound and through northbound to make left turns to Bohemier Trail in this section.

(b) Stage 1 – Egress

- (i) Contractor to provide one lane on Sifton Road to make westbound right turns to northbound University Crescent from 1 hour following game start to 1 hour following game finish. In addition, Dysart Road will be converted to 2-way westbound during this period. East gutter and west median lane of University Crescent to be utilized for northbound traffic.
- (ii) Traffic Services to restore all temporary traffic control devices 1 hour following game finish.
- (iii) Access to University Crescent from Chancellor Matheson Road to the south side of Dysart Road will be monitored by Winnipeg Blue Bombers. No traffic will be permitted southbound and northbound traffic and buses will be permitted.

(c) Stage 2 – Ingress

- (i) Traffic Services to relocate Contractor traffic control devices to allow for two lanes of southbound traffic in the west lanes University Crescent from Thatcher Drive to Dysart Road from 1.5 hours prior to game start to 1 hour following game start. Northbound traffic will not be permitted on University Cr from Dysart Road to Thatcher Drive during this period.
- (ii) Contractor to provide one lane on Sifton Road to make westbound left turns to southbound University Crescent from 1.5 hours prior to 1 hour following game start.
- (iii) Access to University Crescent from Chancellor Matheson Road to the south side of Dysart Road will be monitored by Winnipeg Blue Bombers. Winnipeg Transit buses permitted through southbound and through northbound to make left turns to Bohemier Trail in this section.

(d) Stage 2 - Egress

- (i) Contractor to provide one lane on Sifton Road to make westbound right turns to northbound University Crescent from 1 hour following game start to 1 hour following game finish. In addition, Dysart Road will be converted to 2-way westbound during this period. West lanes of University Crescent to be utilized for northbound traffic.

- (ii) Traffic Services to restore all temporary traffic control devices 1 hour following game finish.
 - (iii) Access to University Crescent from Chancellor Matheson Road to the south side of Dysart Road will be monitored by Winnipeg Blue Bombers. No traffic will be permitted southbound and northbound traffic and buses will be permitted.
- (e) Stage 3 – Ingress
 - (i) Traffic Services to relocate Contractor traffic control devices to allow for two lanes of southbound traffic in the east lanes University Crescent from Thatcher Drive to Dysart Road from 1.5 hours prior to game start to 1 hour following game start. Northbound traffic will not be permitted on University Cr from Dysart Road to Thatcher Drive during this period.
 - (ii) Contractor to provide one lane on Sifton Road to make westbound left turns to southbound University Crescent from 1.5 hours prior to 1 hour following game start.
 - (iii) Access to University Crescent from Chancellor Matheson Road to the south side of Dysart Road will be monitored by Winnipeg Blue Bombers. Winnipeg Transit buses permitted through southbound and through northbound to make left turns to Bohemier Trail in this section.
- (f) Stage 3 - Egress
 - (i) Contractor to provide two lanes on Sifton Road to make westbound right turns to northbound University Crescent from 1 hour following game start to 1 hour following game finish. East lanes of University Crescent to be utilized for northbound traffic.
 - (ii) Traffic Services to restore all temporary traffic control devices 1 hour following game finish.
 - (iii) Access to University Crescent from Chancellor Matheson Road to the south side of Dysart Road will be monitored by Winnipeg Blue Bombers. No traffic will be permitted southbound and northbound traffic and buses will be permitted.

E12.2 No measurement or payment will be made for the work included in E12.1.

E13. REQUIREMENTS FOR MANITOBA MARATHON

E13.1 The Manitoba Marathon is scheduled to take place on June 15, 2025.

E13.2 The Contractor is required to provide a safe running surface at the following locations that will be utilized by the event (locations will be fully closed to traffic):

- (a) University Crescent from Dysart Road to Thatcher Drive

E13.3 It is anticipated that on the date of the event in 2025, the Contractor will be completing Stage 2 works with northbound lanes of University Crescent closed. The Contractor shall provide a clean running surface in the west lanes of University Crescent from Dysart Road to Thatcher Drive.

E13.4 If the marathon route must travel through a lane of University Crescent under construction, the Contractor shall provide a compacted gravel surface acceptable to the contract administrator. If a transition between new/existing pavement and a gravel surface is required, the Contractor shall provide compacted gravel ramps between the two areas. The compacted gravel surfaces shall be in place by one day prior to the event taking place.

E13.5 The Contractor shall provide barricades/delineation to ensure the safety of event participants/spectators, acceptable to the Contract Administrator.

E14. REFUSE AND RECYCLING COLLECTION

E14.1 While access to refuse and/or recycling collection vehicles is restricted, on collection day(s) the Contractor shall move all of the affected property owners refuse and/or recycling materials to a nearby common area, prior to an established time, in accordance with E14.2 to permit the

normal collection vehicles to collect the materials. Immediately following recycling collection the Contractor shall return recycling receptacles to the addresses marked on the receptacles.

E14.2 Collection Schedule:

University Cr – Thatcher Dr to Wedgewood Dr East Side

Collection Day(s): **Wednesday**

Collection Time: **7:00am**

Common Collection Area: **Relocate carts to north of construction barricades as required**

E14.3 No measurement or payment will be made for the work associated with this specification.

E15. WATER OBTAINED FROM THE CITY

E15.1 Further to 3.7 of CW 1120, the Contractor shall pay for all costs, including sewer charges, associated with obtaining water from the City in accordance with the Waterworks and Sewer By-laws.

E16. SURFACE RESTORATIONS

E16.1 Further to 3.3 of CW 1130, payment will be made to the Contractor to temporarily restore pavement cuts associated with land drainage sewer or traffic signals installation. Maintenance of temporary pavement cuts is the responsibility of the Contractor and no measurement or payment will be made.

E17. INFRASTRUCTURE SIGNS

E17.1 The Contractor shall obtain infrastructure signs from the Traffic Services Sign Shop at 421 Osborne Street. The Contractor shall mount each sign securely to a rigid backing material approved by the Contract Administrator. The Contractor shall fasten each sign to a suitable support and erect and maintain one sign at each street as directed by the Contract Administrator. When the Contract Administrator considers the Work on the street complete, the Contractor shall remove and dispose of the signs and supports. No measurement for payment will be made for performing all operations herein described and all other items incidental to the work described.

E18. PORTLAND CEMENT CONCRETE SIDEWALK WITH BLOCK OUTS FOR INDICATOR SURFACES

DESCRIPTION

E18.1 This specification shall supplement CW 3325-R5 "Portland Cement Concrete Sidewalks".

CONSTRUCTION METHODS

E18.2 Add the following to section 9 :

E18.2.1 As shown on the drawings and as directed by the Contract Administrator, construct sidewalk with block outs and/or monolithic curb and sidewalk with block outs, to allow for the installation of indicator surfaces.

E18.2.2 Verify dimensions of paving stones (indicator surface) prior to construction of the block-outs. Gaps between paving stones and concrete pavement shall not exceed five (5) millimetres.

E18.2.3 Concrete curbs for monolithic curb and sidewalk with block outs shall be constructed in accordance with CW 3240.

MEASUREMENT AND PAYMENT

E18.3 Add the following to section 12 :

E18.3.1 Construction of concrete sidewalks with block outs for indicator surfaces will be measured on surface area basis. The surface area to be paid for shall be the number of square metres constructed in accordance with this specification and accepted by the Contract Administrator, as computed by measurements made by the Contract Administrator.

BASIS OF PAYMENT

E18.4 Add the following to section 13 :

E18.4.1 Construction of concrete sidewalks with block outs for indicator surfaces will be paid for at the Contract Unit Price per square meter for the "Items of Work" listed here below, measured as specified herein, which price shall be payment in full for supplying all materials and for performing all operations herein described and all other items incidental to the work included in this specification.

E18.4.2 Items of Work:

- (a) 100 mm Sidewalk with Block Outs
- (b) 150 mm Sidewalk with Block Outs
- (c) Monolithic Curb and 100 mm Sidewalk with Block Outs*
- (d) Monolithic Curb and 150 mm Sidewalk with Block Outs*

* - reveal height and type

E18.4.3 Concrete thickness greater than the specified sidewalk thickness as a result of shaping the base material to accommodate the block outs is incidental to the listed Items of Work.

E19. PAVING STONES FOR INDICATOR SURFACES

DESCRIPTION

E19.1 This specification shall supplement CW 3330-R5 "Installation of Interlocking Paving Stones"

MATERIALS

E19.2 Add the following to section 5 :

E19.2.1 Paving Stones for indicator surfaces shall be as shown on the drawings.

E19.2.2 Paving Stones for indicator surfaces shall be:

Barkman Concrete paving stones -
Charcoal Holland Paver (60mm X 210 mm X 210 mm)
<https://www.barkmanconcrete.com/>

CONSTRUCTION METHODS

E19.3 Add the following to section 9.2 "Preparation of Sub-grade, Sub-base and Sand-base" :

E19.3.1 Preparation of Sand-Base for Paving Stones in Sidewalk Block Outs.

E19.3.2 Place a 15mm layer of bedding sand in the blocked out sidewalk areas.

E19.3.3 The bedding sand shall be spread and levelled so that the paving stones when installed are 5 mm higher than the finished grade.

E19.3.4 No more sand shall be spread than can be covered in with paving stone on the same day.

E19.3.5 The bedding sand shall not be compacted or disturbed prior to laying the paving stones.

E19.4 Add the following to section 9.3 "Installation of Paving Stones" :

E19.4.1 For indicator surface paving stones, commence installation of paving stones against the long edge of the block out to obtain the straightest possible course of installation.

MEASUREMENT AND PAYMENT

E19.5 Add the following to section 12 :

E19.6 Supply and Installation of Paving Stones for Indicator Surfaces

E19.6.1 Paving stones for indicator surfaces will be measured on surface area basis. The surface area to be paid for shall be the number of square metres constructed in accordance with this specification and accepted by the Contract Administrator, as computed by measurements made by the contract Administrator.

BASIS OF PAYMENT

E19.7 Add the following to section 13 :

E19.7.1 The supply and installation of paving stones for indicator surfaces will be paid for at the Contract Unit Price per square meter for "Paving Stone Indicator Surface", measured as specified herein, which price shall be payment in full for supplying all materials and for performing all operations herein described and all other items incidental to the work included in this specification.

E19.7.2 Concrete thickness greater than the specified sidewalk thickness as a result of shaping the base material to accommodate the block outs is incidental to the listed Items of Work.

E20. SUPPLY AND INSTALL WATERMAIN AND WATER SERVICE INSULATION

DESCRIPTION

E20.1 Notwithstanding 3.12 of CW 2110, this specification covers the supply and installation of insulation in roadway excavations over watermains and water services.

E20.2 Referenced Standard Construction Specifications

- (a) CW 2030 – Excavation Bedding and Backfill
- (b) CW 3110 – Sub –grade, Sub-base and Base Course Construction

E20.3 Referenced Standard Details

- (a) SD-018 - Watermain and Water Service Insulation

MATERIALS

E20.4 Acceptable insulation is:

- (a) Extruded Polystyrene rigid foam insulation – Type 4, 4" in thickness.
DOW - Roofmate or Highload 40
Owen's Corning - Foamular 350 or Foamular 400.
2" X 48" X 96", 2" X 24" X 96", 4" X 24" X 96"

E20.5 Sand Bedding:

- (a) In accordance with CW 2030

CONSTRUCTION METHODS

E20.6 Prior to the installation of any sub-base material or geotextile material, locate all existing water services. Further to SD-018, where directed by the Contract Administrator, excavate the sub-grade to allow the top of the insulation to be installed flush with the surrounding sub-grade.

Install the insulation on a level surface centered over the located watermain or water service for the full width of the roadway excavation. Install sand bedding if required to level the surface. Stockpile and dispose of excavated material in accordance with CW 3110.

- E20.7 Thickness of insulation is 100 mm (4"). If using 50 mm (2") panels 2 layers are required. Total width of insulation to be as directed by the Contract Administrator. Place sufficient full width panels to meet or exceed the specified width.
- E20.8 Place insulation panels adjacent to each other over the specified area with no gaps between panels and less than 15mm of elevation difference along the adjoining edges. Where 2" thick panels are being used, offset the top layer to prevent the panel joints from aligning with the joints in the lower layer.
- E20.9 Use full panels of insulation where possible. Where necessary cut insulation panels to obtain coverage to specified lengths. Insulation pieces shall be a minimum of dimension of 300 mm in width or length.
- E20.10 Take appropriate measures to ensure panels are not displaced when installing geotextiles and during backfilling operations.

MEASUREMENT AND PAYMENT

- E20.11 Watermain and Water Service Insulation shall be measured on an area basis and paid for at the Contract Unit Price per square metre of "Watermain and Water Service Insulation". The area to be paid for shall be the total square meters of watermain and water service insulation supplied and installed in accordance with this specification, accepted and measured by the Contract Administrator.
- (a) Excavation of the roadway subgrade in accordance with E20.6 will not be measured for payment and will be included in the payment for "Watermain and Water Service Insulation".

E21. MIX DESIGN PROPORTION

E21.1 General

- E21.1.1 Further to CW 3310-R18, this Specification covers the mix proportion for all concrete types related to, the construction of Portland Cement Concrete pavements, curbs, gutters, private approaches, bull-noses, median slabs, medians, safety medians and boulevard splash strips, sidewalks and other related concrete works.

E21.2 Referenced Standard Construction Specifications

- (a) CW 3310 – Portland Cement Concrete Pavement Works

E21.3 Mix Design

- E21.3.1 Further to CW 3310-R18 Table CW 3310.5, the minimum cementitious contents shall be as follows:
- Type 1 - 380 kg/m³
 - Type 2 - 360 kg/m³
 - Type 3 - 380 kg/m³
 - Type 4 - 380 kg/m³
 - Type 5 - 340 kg/m³
 - Type 6 - 360 kg/m³

E21.4 Requirements

- E21.4.1 The Mix Design Statements for all the concrete shall be submitted to the City of Winnipeg, Research and Standards Engineer for approval.

E21.5 Quality Assurance

E21.5.1 The Contract Administrator shall ensure the frequency and number of quality assurance tests in accordance with CW 3310.

E22. HYDRO EXCAVATION FOR UTILITY EXPLORATION

E22.1 Description

E22.1.1 General

- (a) This Specification covers all operations relating to 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 in accordance with B6.
- (b) The Work to be done by the Contractor under this Specification shall include the furnishing of all superintendence, overhead, labour, materials, equipment, tools, supplies, and all things necessary for and incidental to the satisfactory performance and completion of all Works as hereinafter specified.

E22.2 Equipment

E22.2.1 Hydro excavation unit shall be capable of maintaining a minimum working pressure of 10,000 psi, at a rate of flow of 10 to 12 gallons per minute. The unit should be adjustable, so as to provide adequate pressure to remove earthen material.

E22.2.2 Spray head shall be equipped with a rotating type nozzle, in order to provide a wider path of cut.

E22.3 Construction Methods

E22.3.1 Hydro-Removal of Earthen Material

- (a) Earthen material adjacent to utility entity shall be sprayed with high pressure water so as to remove all such material.

E22.3.2 Recovery of Excavated Material

- (a) The recovery of excavated material shall be done using vacuum type method, or other type method as approved by the Contract Administrator.
- (b) The recovery of material shall follow immediately behind the excavation, to avoid excavated areas from filling with excavated material.
- (c) The use of mechanical sweepers will not be allowed.
- (d) Dispose of material in accordance with Section 3.4 of CW 1130.

E22.3.3 Backfill of Hydro Excavated Hole

- (a) The Contractor shall be responsible for the backfill of the hydro excavated hole with flowable cement-stabilized fill or sand backfill upon completion of the work described herein, to the approval of the Contract Administrator.

E22.4 Measurement and Payment (Provisional Item)

E22.4.1 Hydro Excavation for Utility Exploration as specified herein will be measured on unit price basis as listed in Form B: Prices. Payment will be made at the Contract Price for "Hydro Excavation for Utility Exploration".

E23. REINFORCED CONCRETE LAND DRAINAGE SEWER PIPE

E23.1 Description

- (a) This specification covers the requirements where reinforced concrete land drainage sewer pipe is installed using jacking methods and in a trench.

E23.2 Materials

E23.2.1 Reinforced Concrete Pipe

- (a) Reinforced concrete pipe shall conform to CW 2130, ASTM C76 and CSA A257;
- (b) Minimum pipe class as shown on Drawings;
- (c) Pipe classes for jacking pipe and pipe in a trench as shown on the Drawings are for long term design conditions and loading. The Contractor shall verify that the pipe class, strength, reinforcing and joint design are suitable for their proposed installation methods and procedures. Design of any pipe to suit installation methods is the responsibility of the Contractor. Axial load carrying capacity shall be designed in accordance with ASCE 27; for trenchless installations and ASCE 15 of trench installations as detailed on Drawings:
- (d) Reinforcement for pipe intended for trenchless installations must take into account the potential for the pipe to rotate during installation. The design of stirrups and circumferential reinforcement must not result in a preferential installation orientation for the pipe unless appropriate controls are put in place, precluding rotation of the pipe during installation;
- (e) External joint bands of jacking pipe shall conform to CW 2130 and ASTM A36;
- (f) Perform a minimum of one (1) three-edge bearing test in accordance with ASTM C76 and C497 for each size and class of pipe installed. Test shall confirm both the service cracking and ultimate load capacity of the pipe. Test shall be performed in the presence of the Contract Administrator. The pipe supplier shall provide a minimum of seven (7) Calendar Days advance notice to the Contract Administrator prior to undertaking the test.

E23.3 Submittals

E23.3.1 Submit Shop Drawings for reinforced concrete jacking pipe in accordance with ASTM C76 and E6 verifying that the pipe class, strength, reinforcing and joint design are suitable for their proposed installation methods and procedures. Design of any pipe to suit installation methods is the responsibility of the Contractor. Axial load carrying capacity shall be designed in accordance with ASCE 27; for trenchless installations and ASCE 15 of trench installations as detailed on Drawings. Shop Drawings shall include the following:

- (a) all pipe and joint dimensions;
- (b) steel reinforcement configuration.

E23.3.2 Submit quality control documentation in accordance with ASTM C76 and CW 2160. Quality control documents shall include the following:

- (a) mill tests for reinforcing steel;
- (b) concrete test results;
- (c) results from three-edge bearing test(s).

E23.4 Construction Methods

- (a) Land drainage sewers shall be installed in accordance with CW 2130 except as specified herein.
- (b) Verification of Utility Elevations as indicated in E24.

E23.5 Measurement and Payment

- (a) Measurement and payment for sewer installation shall be in accordance with CW 2130 as specified.

E24. INSTALLATION OF LAND DRAINAGE SEWERS BY TRENCHLESS EXCAVATION

E24.1 Further to Clause 3.4.1 of CW 2130, all sewers shall be installed by trenchless methods.

- E24.2 Selection of excavation equipment for installation of sewers by trenchless methods shall be the responsibility of the Contractor and shall be made based on the basis of expected soil conditions as detailed on the test hole logs. The Contractor shall make allowances in the choice of equipment to account for reasonable and minor deviations in ground conditions and shall have contingency plans for the removal of boulders and other minor changes in ground conditions.
- E24.3 Contractor shall Submit to the Contract Administrator a pipe installation method list indicating Contractor's proposed pipe segments planned to be installed by trenchless methods and include a short description of the proposed trenchless method for each segment.
- E24.4 Pressure grouting or approved alternative methods shall be used to fill voids caused by the installation or if the bored hole diameter is greater than the outside diameter of the pipe by more than 25 mm.
- E24.5 For any trenchless installation that requires applying thrust the Contractor shall submit shop drawings for thrust blocks. Thrust blocks shall be sufficiently reinforced, isolated, and otherwise anchored, to include any necessary ground improvement measures, to prevent movement from occurring within the launching shaft and/or misalignment of the jacking frame.
- E24.6 Verification of Utility Elevations
- (a) Prior to construction, the Contractor shall verify at their own cost all buried utility elevations impacted by the Work. Verification shall occur in a minimum of fourteen (14) Calendar Days prior to any construction of the land drainage sewer such that any required grade adjustments can be made. Contractor shall arrange for all required utility locations, safety watches and other required notifications. Contractor shall provide a minimum of five (5) Calendar Days' notice to the Contract Administrator of conducting utility exposures.
- E24.7 In the event that there is a substantial change in the character or nature of the subsurface conditions or that obstructions are encountered, which adversely impact the Contractor's production or construction procedure, the Contractor shall immediately notify the Contract Administrator.
- (a) The notice shall provide details of the change in subsurface soil conditions or obstructions encountered, any proposed construction procedure revision that the Contractor intends to undertake, as well as any other relevant supporting information.
- (b) The Contract Administrator shall review the notice as expeditiously as possible to assess whether the change in conditions and revised construction procedures amount to a Change in Work. In the case of obstructions due to boulders in the silt/till or hardpan strata where that stratum is evident in the test hole logs, no consideration will be made for a Change in Work as boulder obstructions can be reasonably anticipated when working in this stratum. Obstructions such as "random boulders" in the clay strata well above the till interface may be considered as a Change in Work dependent on the level of effort required to facilitate their removal.
- (c) Where the Contract Administrator deems that a Change in Work is necessary, it shall be valued in accordance with the provisions of C7 and the supplementary requirements of E25.

E25. LAND DRAINAGE SEWER TRENCHLESS EXCAVATION OBSTRUCTIONS

- E25.1 Contingency plans for removal of the obstructions encountered in trenchless excavations must be approved by the Contract Administrator and may consist of but not limited to one of the following.
- (a) Drill or excavate a shaft at the location of the obstruction and remove the obstruction.
- (b) Remove the obstruction through the jacking head or core hole following drilling, splitting or breaking the obstruction into smaller components as required.
- (c) Other removal methods.

- E25.2 Where the Contract Administrator deems that the obstruction encountered represents a Change in Work, the Contractor will be compensated from the allowance under the Contract unit price "Change in Contract Conditions" in accordance with C7.4 and the following supplemental requirements:
- (a) The cost of the first four (4) hours of handling obstructions for each occurrence shall be the responsibility of the Contractor.
 - (b) Costs for equipment required in support of the obstruction removal shall be compensated at the MHCA rental rates. Equipment not listed in the MHCA rate schedule shall have their rates established by the Contractor prior to the commencement of Work in accordance with the procedure documented in the MHCA rental guide for establishing equipment rental rates and shall be subject to the approval of the Contract Administrator.
 - (c) Standby equipment that cannot reasonably be deployed elsewhere during the duration of the obstruction removal shall be compensated at 50% of its established rate as noted in E25.2(b) above.
 - (d) Labour rates and material costs associated with obstruction removal shall be compensated as per C7.4 (c) and C7.4.1 with the provision that any removal and replacement of pavements shall be compensated at the Contract Unit Price for such Work.

E26. LAND DRAINAGE SEWER INSTALLATION EXCAVATION, BEDDING AND BACKFILL

E26.1 General

- (a) This Specification shall revise, amend, and supplement the requirements of CW 2030 of the City of Winnipeg's Standard Construction Specifications

E26.2 Submittals

- (a) Submit shoring designs, in accordance with E6.

E26.3 Existing Utilities

- (a) Arrange and pay for any required safety watches around existing utilities as per CW1120.
- (b) Arrange and provide temporary or permanent relocation of existing utilities, and or temporary support of existing utilities required for the excavation of the shafts. Work on private utilities may not occur without submittal and approval of your utility plan to the Contract Administrator and approval from the utility owner.

E26.4 Disposal of Unsuitable or Surplus Excavated Material

- (a) The Contractor is responsible for arranging for a disposal site for all excavated material, including all associated works including transportation and payment of tipping fees. Disposal of all excavated material shall be considered incidental to the Works.

E26.5 Foundation, Bedding and Backfill

- (a) All shaft and manhole foundation and final backfill shall be constructed with non-frozen materials;
- (b) Type 3 foundations shall be used in all shafts.
- (c) Type 3 initial backfill material shall be used in place of sand in all shafts.
- (d) All excavations located within one (1) meter of paved areas shall be backfilled with Class 3 backfill as per SD-002
- (e) Further to E26.5(d), where directed by the Contract Administrator excavations within one (1) meter of Regional Streets (University Crescent) shall be backfilled with Class 1 backfill as per SD-002 and paid as cement stabilized fill under the provisional items.
- (f) Shafts to accommodate a tunnelling or jacking machine shall be constructed with a concrete foundation of sufficient cross section and trueness to adequately support and align the machine during tunnelling operations.

E26.6 Measurement and Payment

- (a) Excavation, shoring, and backfilling for pipe installation will not be measured for payment. Costs for excavation and shoring shall be included in the price for installation of the pipe. No separate measurement or payment will be made.
- (b) There will be no separate measurement and payment for Pavement Removals according to CW 2030 or removals according to CW 2130. All Pavement Removals shall be considered incidental to the Contract.

E27. LAND DRAINAGE SEWER BEEHIVE DITCH CATCHBASIN INLETS

E27.1 Description

- (a) This Specification shall supplement CW 2130 for catchbasins as it pertains to the detail for Beehive Ditch Inlets.

E27.2 Construction Methods

- (a) Install Beehive Ditch Inlet according to SD-025 and SD-025B as indicated on the Drawings except as modified in CU-09 detail for Standard Catch Basin Inlet Frame for Ditch.
- (b) Install grouted stone rip rap according to CW 3615;
- (c) Install fiber roll according to manufacturer's recommendations;
- (d) Install culvert end marker according to CW 3610 except as modified in CU-09 detail for Standard Catch Basin Inlet Frame for Ditch.

E27.3 Measurement and Payment

- (a) Measurement and payment for Beehive Ditch Inlets shall be according to CW 2130 4.4 except payment shall also include the grouted stone rip rap, fibre roll and culvert end marker. There will be no separate measurement and payment for grouted stone rip rap, fibre roll and culvert end marker associated with Beehive Ditch Inlets.

E28. PRECAST CONCRETE BOX MANHOLE "MH9"

E28.1 Description

- (a) This specification shall cover the supply and installation of "MH9" precast concrete box manhole and shall supplement CW 2130.

E28.2 Submittals

- (a) Submit shop drawings in accordance with CW 1110 and E6 of this specification showing pipe openings, reinforcing, and joint details, signed and stamped by a Professional Engineer registered in the Province of Manitoba.

E28.3 Materials

- (a) Base to be cast in place as per CW 2130, as indicated on the Drawings.
- (b) Precast concrete box sections to ASTM C1433 complete with slab top.
- (c) Precast concrete circular sections, benching, frames, covers, and rungs as per CW 2130.

E28.4 Measurement and Payment

- (a) Manhole installation including frames, covers, box sections, risers, base, and other accessories and appurtenances shall be paid under the Contract unit price for "Precast Box Manhole (MH9)" and will be measured on a unit basis.

E28.5 Construction Methods

- (a) Construct in accordance with CW 2130 and manufacturer's recommendations.

E29. PROVISIONAL ITEMS

- E29.1 The Provisional Items listed on Form B: Prices are part of the Contract.
- E29.2 The Contractor shall not perform Work included in the Provisional Items without prior authorization from the Contract Administrator. All Work included in the Provisional Items will be carried out within the construction areas shown on the Drawings.
- E29.3 Notwithstanding GC:7, the City reserves the right to diminish all or any portion of the items of work listed in the Provisional Items and no claim shall be made for damages on the grounds of loss of anticipated profit or for any other reason.

E30. SUPPLY AND INSTALL DIRECTIONAL BAR TILES

DESCRIPTION

- E30.1 This specification covers the supply and installation of directional bar tiles in 100mm concrete sidewalks.
- E30.2 Referenced Standard Construction Specifications and Standard Details
- (a) CW 3235 - Renewal of Existing Miscellaneous Concrete Slabs;
 - (b) CW 3310 - Portland Cement Concrete Pavement Works;
 - (c) CW 3325 - Portland Cement Concrete Sidewalk.

MATERIALS

- E30.3 Acceptable Directional Bar Tile product is:
- (a) 305mm x 610mm Cast in Place (Wet Set) with Anchors – Manufactured by ADA Solutions
 - (i) Part # 1224BAR375Y;
 - (ii) Flush Mount, Federal Yellow;
 - (iii) Fasteners: 6mm Dia. x 38mm Long SS FH Bolts (Hex Drive) and 6mm Dia. x 38mm Long Zinc Inserts;
 - (iv) Sealant: Manufacturer recommended.

INSTALLATION INSTRUCTIONS

- E30.4 Installation Instructions for Directional Bar Tiles
- (a) Install Wet Set Replaceable units as per manufacturer's recommendations, and as shown on contract drawings.
 - (b) Where necessary, cut Wet Set Replaceable units accurately using a 60 tooth carbide or diamond blade with a suitable cutting device. No cut unit shall measure less than 250mm in length. In accordance with manufacturer's recommendations, supplemental fasteners and Inserts shall be added as needed when the distance between the cut face of the unit and the original hardware exceeds 100mm.
 - (c) Install Wet Set Replaceable units true to grade, in location, layout and pattern as indicated on the contract drawings.
 - (d) Wet Set Replaceable units shall be set flush into a minimum 65mm depth of concrete (100mm-175mm slump). Vibrate or tamp (with a rubber mallet) the Wet Set Replaceable units into the fresh concrete to ensure that there are no voids underlying the units and that the units are flush with the adjacent substrate. Temporary weights can be added as necessary in the event of float during initial set of the units.
 - (e) Joint Lines between successive Wet Set Replaceable Units: Maintain a 3mm-5mm consistent joint line between successive units.

- (f) **Tooled Edge Detail:** Maintain a 3mm to 6mm tooled edge detail along the perimeter of the Wet Set Replaceable unit installation. Installation of the tooled edge detail facilitates future removal and replacement of the units.
- (g) **Sealant:** Fill all Joints and Tooled Edge Details with Sikaflex 1A, BASF NP1, or Tremco Dymonic Sealant in the color(s) indicated on the contract drawings. Sealant renders the installation water resistant and provides for a pleasing architectural finish.
- (h) **Protective Plastic Sheet:** Particularly in direct sunlight and when temperatures exceed 25 degrees C, remove the protective plastic sheeting from the Wet Set Replaceable units within 48 hours of installation of the unit. Failure to do so will be solely at Contractor risk and may result in the protective plastic bonding to the unit thus requiring a considerable effort to remove the protective plastic sheeting.

MEASUREMENT AND PAYMENT

E30.5 Directional Bar Tiles

E30.5.1 Directional Bar Tiles shall be measured on a unit basis and paid for at the Contract Unit Price per unit for the "Items of Work" listed here below. The number of units to be paid for shall be the total number of Directional Bar Tiles supplied and installed in accordance with this specification, accepted and measured by the Contract Administrator.

Directional Bar Tiles

- i) 305 mm x 610 mm tiles

E31. MATERIALS FOR TRAFFIC SIGNAL INSTALLATIONS

E31.1 Further to CW 3620 2.11, Anchor Bolt Templates and Top Rings:

- (a) Master anchor bolt templates and Oversized D top rings are provided by the City and 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 must both be oiled (inside and out) for ease of removal and cleaning. Following the removal of anchor bolt template and top ring, 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.
 - (i) Public Works Stores
Attn: Stores Foreman
1277 Pacific Ave
Winnipeg, MB R3E 1G7
Phone: (204) 794-4333

E31.2 Further to CW 3620 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.

E32. INSTALLATION OF TRAFFIC SIGNAL SERVICE BOXES (PRE-CAST)

DESCRIPTION

- E32.1 This specification covers the use and installation of a service box pre-cast (SD-322) 17" x 30" x 18" and 13" x 24" x 18".

MATERIALS

- E32.2 Materials shall be as per Section 2 of CW 3620.

CONSTRUCTION METHODS

- E32.3 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.
- E32.4 Fill bottom of excavation with compacted limestone base course material to set precast service box to grade.
- E32.5 Install pre-cast service box on top of the compacted granular fill material to pavement, sidewalk or boulevard finish grade.
- E32.6 All conduits must be bundled into a group in the centre of the pre-cast service box. Install plastic plugs prior to back fill.
- E32.7 Backfill around pre-cast service box exterior. Back fill shall conform to requirements of SD-342.
- E32.8 Pre-cast service box shall meet the grade of the sidewalk or boulevard provided by the Contract Administrator.

MEASUREMENT AND PAYMENT

- E32.9 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.
- (a) Service Box Pre-Cast (17" x 30")

E33. INSTALLATION OF EARLY OPEN CONCRETE TRAFFIC SIGNAL BASES

DESCRIPTION

- E33.1 This specification shall cover the installation of early open concrete bases.

MATERIALS

- E33.2 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).
- E33.3 Further to E33.2, the supplied concrete shall achieve a minimum compressive strength of 22 MPa at 48 hours.

E33.4 City Supplied Materials shall be as per Section 2.10 of CW 3620 and E31.

CONSTRUCTION METHODS

E33.5 Construction methods for the installation of early open concrete bases shall be as per Section 3.7 or CW 3620.

MEASUREMENT AND PAYMENT

E33.6 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.

(a) Signal Pole Base Early Open – Type G

(b) Signal Pole Base Early Open – Type OD

E33.7 Payment for the items of work in this Section includes the supply and installation of ready mix or mixed concrete on site.

E33.8 Payment for the items of work listed above includes the supply and installation of grounding rods (electrodes) installed with the concrete bases.

E33.9 Payment for the items of work listed above includes boring.

E33.10 Payment for the items of work listed above includes top ring forms.

E34. REMOVAL OF EXISTING TREES

DESCRIPTION

E34.1 This specification covers the removal and disposal of existing trees.

CONSTRUCTION METHODS

E34.2 Trees shall be removed and disposed of by a pre-qualified subcontractor in accordance with the City's 'Guidelines for Maintaining City Owned Trees'. 'Guidelines for Maintaining City Owned Trees' and a list of pre-qualified contractors are located at:

https://winnipeg.ca/publicworks/parksOpenSpace/UrbanForestry/Homeowner_Tree_Maintenance_Guidelines.stm

E34.3 The Urban Forestry Branch has already approved the removal of trees in the median and east boulevard of University Crescent.

E34.4 The Contract Administrator will notify the Urban Forestry Branch when the trees have been removed.

MEASUREMENT AND PAYMENT

E34.5 Removal and disposal of existing trees will be paid for at the Contract Unit Price per metre for 'Removal of Existing Trees', measured as specified herein, which price shall be payment in full for performing all operations herein described in this specification.

E35. CONNECTION TO LINED CAST IRON WATER MAINS

E35.1 Description

(a) The bond between CIPP liners and the cast iron host pipe may not be sufficient to provide a seal that meets leakage requirements for water mains. This Specification covers the requirements for connecting new water mains to existing cast iron watermain that have CIPP lining.

E35.2 Materials

(a) Internal Pipe Seals

- (i) Internal pipe seals shall be EPDM rubber seals with 316 stainless steel retaining bands suitable for installation in potable water systems and NFS 61 listed components.
- (ii) Seals shall be suitable for normal operation pressures of 0.45 MPa (65 psi) and 1.0 MPa (145 psi) test pressure.
- (iii) Seals shall accommodate a diameter reduction of 12 to 20 mm.
- (iv) Approved products:
 - (i) Weko-Seal;
 - (ii) QuickLock LinerEnd;
 - (iii) or approved equal.

E35.3 Construction Methods

- (a) Excavation and backfill will be as per CW 2030.
- (b) Cut the cast iron pipe and CIPP liner square to the axis pipe with an abrasive wheel cut-off saw and clean all cutting debris from the inside and outside of the pipe.
- (c) Cut back the CIPP liner to suit the internal seal at the distance recommended by the coupling manufacturer.
- (d) Measure liner thickness and confirm internal seal diameter range.
- (e) Clean and sand the inside of the pipe to obtain a smooth surface suitable for the internal seal.
- (f) Apply NSF 61 listed pipe soap as per manufacturer's recommendations.
- (g) Install the internal seal following manufacturer's instructions. The internal seal shall be flush to the end of the cast iron pipe.
- (h) Following the installation of the internal seal, connect new PVC piping to the cast iron host pipe using bolted sleeve couplers as specified in Standard CoW-WM-08.
- (i) Where PVC piping with a bolted sleeve coupling is disconnected from a lined cast iron pipe, and reconnected at the same location with no trimming of the cast iron pipe, no new internal seal is required. No additional measurement or payment will be made for this type of connection.

E35.4 Method of Measurement and Basis for Payment

- (a) Connection to existing cast iron pipe with CIPP liner will be measured for payment on a unit basis and paid for at the Contract Unit Price for "Connection to Existing Cast Iron Pipe with CIPP Liner, 250 mm Watermain". The price bid shall include the cost for all work and materials required to install internal pipe seals. The number of units to be paid for will be the total number of connections made with new internal pipe seals acceptably constructed in accordance with this specification.
- (b) No additional measurement or payment will be made for connections as described in E35.3(i) above.