



**THE CITY OF WINNIPEG**

**TENDER**

**TENDER NO. 410-2025**

**JEFFERSON EAST COMBINED SEWER RELIEF – CONTRACT 10**

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## **PART B - BIDDING PROCEDURES**

### **B1. CONTRACT TITLE**

B1.1 Jefferson East Combined Sewer Relief – Contract 10

### **B2. SUBMISSION DEADLINE**

B2.1 The Submission Deadline is 12:00 noon Winnipeg time, June 9, 2025.

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. SITE INVESTIGATION**

B3.1 Further to C3.1, the Bidder may view the Site without making an appointment.

B3.2 The Bidder/Proponent is responsible for inspecting the Site, the nature of the Work to be done and all conditions that might affect their Bid/Proposal or their performance of the Work, and shall assume all risk for conditions existing or arising in the course of the Work which have been or could have been determined through such inspection.

### **B4. ENQUIRIES**

B4.1 All enquiries shall be directed to the Contract Administrator identified in D6.1.

B4.2 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.

B4.3 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.

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

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

B4.6 Any enquiries concerning submitting through MERX should be addressed to:  
MERX Customer Support  
Phone: 1-800-964-6379  
Email: merx@merx.com

### **B5. CONFIDENTIALITY**

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

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

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

## **B6. ADDENDA**

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

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

B6.3 Addenda will be available on the MERX website at [www.merx.com](http://www.merx.com).

B6.4 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.

B6.5 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.

B6.6 Notwithstanding B4, enquiries related to an Addendum may be directed to the Contract Administrator indicated in D6.

## **B7. SUBSTITUTES**

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

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

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

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

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

- B7.5 The Contract Administrator, after assessing the request for approval of a substitute, may in 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.
- B7.6 The Contract Administrator will provide a response in writing, at least two (2) Business Days prior to the Submission Deadline, to the Bidder who requested approval of the substitute.
- B7.6.1 The Contract Administrator will issue an Addendum, disclosing the approved materials, equipment, methods and products to all potential Bidders. The Bidder requesting and obtaining the approval of a substitute shall be responsible for disseminating information regarding the approval to any person or persons they wish to inform.
- B7.7 If the Contract Administrator approves a substitute as an “approved equal”, any Bidder may use the approved equal in place of the specified item.
- B7.8 If the Contract Administrator approves a substitute as an “approved alternative”, any Bidder bidding that approved alternative may base 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 B18.
- B7.9 No later claim by the Contractor for an addition to the Total Bid Price because of any other changes in the Work necessitated by the use of an approved equal or an approved alternative will be considered.

## **B8. BID COMPONENTS**

- B8.1 The Bid shall consist of the following components:
- (a) Form A: Bid/Proposal;
  - (b) Form B: Prices;
  - (c) Form G1: Bid Bond and Agreement to Bond.
- B8.2 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.
- B8.3 The Bid shall be submitted electronically through MERX at [www.merx.com](http://www.merx.com).
- B8.3.1 Bids will **only** be accepted electronically through MERX.
- B8.4 Bidders are advised that inclusion of terms and conditions inconsistent with the Tender document, including the General Conditions, will be evaluated in accordance with B18.1(a).

## **B9. BID**

- B9.1 The Bidder shall complete Form A: Bid/Proposal, making all required entries.
- B9.2 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.
- B9.2.1 If a Bid is submitted jointly by two or more persons, each and all such persons shall identify themselves in accordance with B9.2.

- B9.3 In Paragraph 3 of Form A: Bid/Proposal, the Bidder shall identify a contact person who is authorized to represent the Bidder for purposes of the Bid.
- B9.4 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.
- B9.4.1 The name and official capacity of all individuals signing Form A: Bid/Proposal should be entered below such signatures.
- B9.5 If a Bid is submitted jointly by two or more persons, the word "Bidder" shall mean each and all such persons, and the undertakings, covenants and obligations of such joint Bidders in the Bid and the Contract, when awarded, shall be both joint and several.

## **B10. PRICES**

- B10.1 The Bidder shall state a price in Canadian funds for each item of the Work identified on Form B: Prices.
- B10.1.1 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 D35. Any such costs shall be determined in accordance with D35.
- B10.2 The quantities listed on Form B: Prices are to be considered approximate only. The City will use said quantities for the purpose of comparing Bids.
- B10.3 The quantities for which payment will be made to the Contractor are to be determined by the Work actually performed and completed by the Contractor, to be measured as specified in the applicable Specifications.
- B10.4 Payments to Non-Resident Contractors are subject to Non-Resident Withholding Tax pursuant to the Income Tax Act (Canada).
- B10.5 The Bidder shall enter the Total Bid Price from Form B: Prices into the Total Bid Price field in MERX.
- B10.5.1 Bidders are advised that the calculation indicated in B18.4 will prevail over the Total Bid Price entered in MERX.

## **B11. DISCLOSURE**

- B11.1 Various Persons provided information or services with respect to this Work. In the City's opinion, this relationship or association does not create a conflict of interest because of this full disclosure. Where applicable, additional material available as a result of contact with these Persons is listed below.
- B11.2 The Persons are:
- (a) N/A

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

- B12.1 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.
- B12.2 Conflict of Interest means any situation or circumstance where a Bidder or employee of the Bidder proposed for the Work has:
- (a) other commitments;
  - (b) relationships;
  - (c) financial interests; or
  - (d) involvement in ongoing litigation;
- that could or would be seen to:
- (i) exercise an improper influence over the objective, unbiased and impartial exercise of the independent judgment of the City with respect to the evaluation of Bids or award of the Contract; or
  - (ii) compromise, impair or be incompatible with the effective performance of a Bidder's obligations under the Contract;
- (e) has contractual or other obligations to the City that could or would be seen to have been compromised or impaired as a result of 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.
- B12.3 In connection with their Bid, each entity identified in B12.2 shall:
- (a) avoid any perceived, potential or actual Conflict of Interest in relation to the procurement process and the Work;
  - (b) upon discovering any perceived, potential or actual Conflict of Interest at any time during the 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.
- B12.4 Without limiting B12.3, 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.
- B12.5 Without limiting B12.3, and in addition to all contractual or other rights or rights at law or in equity or legislation that may be available to the City, the City may, in 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 B12.4 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.

B12.6 The final determination of whether a perceived, potential or actual Conflict of Interest exists shall be made by the City, in their sole discretion.

### **B13. QUALIFICATION**

B13.1 The Bidder shall:

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

B13.2 The Bidder and any proposed Subcontractor (for the portion of the Work proposed to be subcontracted to them) shall:

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

B13.3 The Bidder and/or any proposed Subcontractor (for the portion of the Work proposed to be subcontracted to them) shall:

- (a) have successfully carried out work similar in nature, scope and value to the Work; and
- (b) be fully capable of performing the Work required to be in strict accordance with the terms and provisions of the Contract; and
- (c) have a written workplace safety and health program if required pursuant to The Workplace Safety and Health Act (Manitoba);
- (d) have completed the Accessible Customer Service online training required by the Accessibility for Manitobans Act (AMA) (see B13.5 and D8).
- (e) upon request of the Contract Administrator, provide the Security Clearances in accordance with PART F - Security Clearance;

B13.4 Further to B13.3(c), the Bidder shall, within five (5) Business Days of a request by the Contract Administrator, provide proof satisfactory to the Contract Administrator that the Bidder/Subcontractor has a workplace safety and health program meeting the requirements of The Workplace Safety and Health Act (Manitoba), by providing:

- (a) Written confirmation of a safety and health certification meeting SAFE Work Manitoba's SAFE Work Certified Standard (e.g., COR™ and SECOR™) 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/Safety/default.stm>.

- B13.5 Further to B13.3(d), the Bidder acknowledges that they and all Subcontractors have obtained training required by the Accessibility for Manitobans Act (AMA) available at <https://accessibilitymb.ca/resources-events-and-training/online-training.html> for anyone that may have any interaction with the public on behalf of the City of Winnipeg.
- B13.6 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.
- B13.7 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.

#### **B14. BID SECURITY**

- B14.1 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 at: <https://www.winnipeg.ca/media/4929/>
- B14.2 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 B14.2(b).
- B14.3 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 B18.1(a).
- B14.4 Bonds passing the verification process will be treated as original and authentic.
- B14.4.1 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.
- B14.5 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.
- B14.6 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.

#### **B15. OPENING OF BIDS AND RELEASE OF INFORMATION**

- B15.1 Bids will not be opened publicly.

- B15.2 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](http://www.merx.com).
- B15.3 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](http://www.merx.com).
- B15.4 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).
- B15.4.1 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.

**B16. IRREVOCABLE BID**

- B16.1 The Bid(s) submitted by the Bidder shall be irrevocable for the time period specified in Paragraph 11 of Form A: Bid/Proposal.
- B16.2 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.

**B17. WITHDRAWAL OF BIDS**

- B17.1 A Bidder may withdraw their Bid without penalty at any time prior to the Submission Deadline.

**B18. EVALUATION OF BIDS**

- B18.1 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 there from (pass/fail);
  - (b) qualifications of the Bidder and the Subcontractors, if any, pursuant to B13 (pass/fail);
  - (c) Total Bid Price;
  - (d) economic analysis of any approved alternative pursuant to B7.
- B18.2 Further to B18.1(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.
- B18.3 Further to B18.1(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.
- B18.4 Further to B18.1(c), the Total Bid Price shall be the sum of the quantities multiplied by the unit prices for each item shown on Form B: Prices.
- B18.4.1 Further to B18.1(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.
- B18.4.2 Bidders are advised that the calculation indicated in B18.4 will prevail over the Total Bid Price entered in MERX.

**B19. AWARD OF CONTRACT**

- B19.1 The City will give notice of the award of the Contract or will give notice that no award will be made.
- B19.2 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.
- B19.2.1 Without limiting the generality of B19.2, 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.
- B19.3 If funding for the Work is provided to the City of Winnipeg by the Government of Manitoba and/or the Government of Canada, Bidders are advised that the terms of D35 shall immediately take effect upon confirmation of such funding, regardless of when funding is confirmed.
- B19.4 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 B18.
- B19.4.1 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.

## **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](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 the trenchless construction of new land drainage sewers and appurtenances in accordance with the applicable Specifications and Drawings.

D3.2 The major components of the Work are as follows:

- (a) Approximately 1,700 m of land drainage sewers ranging in size from 300 mm to 1650 mm.
- (b) Connection of the new land drainage sewers to the existing 1650 mm land drainage sewer on McKenzie Street south of Semple Avenue.
- (c) Abandonment of existing catch basin connections to combined sewers.
- (d) Replacement of existing catch basins and connections to the new land drainage sewers.
- (e) Permanent surface restorations and related works:
  - (i) McKenzie Street from Semple Avenue to Belmont Avenue
  - (ii) McKenzie Street from Belmont Avenue to Jefferson Avenue
  - (iii) Belmont Avenue from Canadian Pacific Railway right-of-way to McGregor Street
  - (iv) Kilbride Avenue from McKenzie Street to McGregor Street
  - (v) Hartford Avenue from Parr Street to McGregor Street
  - (vi) Parr Street from Jefferson Avenue to Hartford Avenue
- (f) Temporary surface restorations and related works:
  - (i) Perth Avenue from Parr Street to McGregor Street
  - (ii) St. Anthony Avenue from Parr Street to McGregor Street

#### **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) “**Payment Certification**” means the Contract Administrator’s statement of the sums certified to be paid by the City to the Contractor with reference to its interim and final progress estimates and/or the Contractor’s Proper Invoice;
- (b) “**Proper Invoice**” means the definition within *The Builders’ Liens Act*, R.S.M. 1987, c. B91 and any subsequent amendments thereto, and also includes the criteria to be included in an invoice, as set out in the Measurement and Payment provisions of the Contract;
- (c) “**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;
- (d) “**The Builders’ Liens Act**” or “**the BLA**” means *The Builders’ Liens Act*, R.S.M. 1987, c. B91 and any subsequent amendments thereto.

## D6. CONTRACT ADMINISTRATOR

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

Matt Krentz, C.E.T.  
Municipal Technologist

Telephone No. (204) 346-4226  
Email Address matthew.krentz@aecom.com

D6.2 At the pre-construction meeting, Mr. Krentz 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.

## 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. SUPPLIER CODE OF CONDUCT**

- D9.1 The Contractor has reviewed and understands the City's Supplier Code of Conduct. This document is located at: <https://www.winnipeg.ca/media/4891>
- D9.2 The Contractor agrees to comply with the Supplier Code of Conduct as it may be amended or replaced from time to time. The Contractor is responsible for periodically checking the above link for updates to the Supplier Code of Conduct. Contract signature on Form A: Bid/Proposal from the Contractor signifies agreement to the Supplier Code of Conduct which comes into effect once the Contract starts.
- D9.3 If there is a conflict between the Contract and the Supplier Code of Conduct – the Contract will prevail.

## **D10. UNFAIR LABOUR PRACTICES**

- D10.1 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.
- D10.2 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.
- D10.3 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.).
- D10.4 Failure to provide the evidence required under D10.3, may be determined to be an event of default in accordance with C18.
- D10.5 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.
- D10.5.1 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.

- D10.5.2 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 D10.5. The City may also hold back the amount of the Unfair Labour Practice Penalty from payment for any amount it owes the Contractor.
- D10.5.3 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.

## **D11. FURNISHING OF DOCUMENTS**

- D11.1 Upon award of the Contract, the Contractor will be provided with 'issued for construction' Contract Documents electronically, including Drawings in PDF format only.

## **SUBMISSIONS**

### **D12. AUTHORITY TO CARRY ON BUSINESS**

- D12.1 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.

### **D13. SAFE WORK PLAN**

- D13.1 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.
- D13.2 The Safe Work Plan should be prepared and submitted in the format shown in the City's template which is available on the Information Connection page at The City of Winnipeg, Corporate Finance, Purchasing Division website at <http://www.winnipeg.ca/matmgt/Safety/default.stm>
- D13.3 Notwithstanding B13.4 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.

### **D14. INSURANCE**

- D14.1 The Contractor shall provide and maintain the following insurance coverage:
- (a) commercial general liability insurance, in the amount of at least two million dollars (\$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 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 \$5,000,000 inclusive for loss or damage including personal injuries and death resulting from any one accident or occurrence.
- D14.2 Deductibles shall be borne by the Contractor.

D14.3 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 C4.1 for the return of the executed Contract Documents, as applicable.

D14.4 The Contractor shall not cancel, materially alter, or cause each policy to lapse without providing at least thirty (30) Calendar Days prior written notice to the Contract Administrator.

## **D15. CONTRACT SECURITY**

D15.1 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 amount of fifty percent (50%) of the Contract Price; and
- (b) labour and material payment bond of a company registered to conduct the business of a surety in Manitoba, in an amount equal to fifty percent (50%) of the Contract Price.

D15.1.1 Bonds are available at:

- (a) Performance Bond <https://www.winnipeg.ca/media/4928/>
  - (i) Performance Bond – Schedule A - Form of Notice  
<https://www.winnipeg.ca/media/4831/>
  - (ii) Performance Bond – Schedule B – Surety's Acknowledgement  
<https://www.winnipeg.ca/media/4832/>
  - (iii) Performance Bond – Schedule C – Surety's Position  
<https://www.winnipeg.ca/media/4833/>
- (b) Labour & Material Payment Bond <https://www.winnipeg.ca/media/4930/>
  - (i) L&M Bond – Schedule A – Notice of Claim  
<https://www.winnipeg.ca/media/4834/>
  - (ii) L&M Bond – Schedule B – Acknowledgement of a Notice  
<https://www.winnipeg.ca/media/4835/>
  - (iii) L&M Bond – Schedule C – Surety's Position  
<https://www.winnipeg.ca/media/4836/>

D15.1.2 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 D15.1(b).

D15.1.3 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.

- D15.1.4 Digital bonds passing the verification process will be treated as original and authentic.
- D15.2 The Contractor shall provide the Contract Administrator identified in D6 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.
- D15.3 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 D15.1(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.

#### **D16. SUBCONTRACTOR LIST**

- D16.1 The Contractor shall provide the Contract Administrator with a complete list of the Subcontractors whom the Contractor proposes to engage (Form J: Subcontractor List) at least two (2) Business Days prior to the commencement of any Work on the Site but in no event later than the date specified in C4.1 for the return of the executed Contract Documents, if applicable.

#### **D17. EQUIPMENT LIST**

- D17.1 The Contractor shall provide the Contract Administrator with a complete list of the equipment which the Contractor proposes to utilize (Form K: Equipment List) at least two (2) Business Days prior to the commencement of any Work on the Site but in no event later than the date specified in C4.1 for the return of the executed Contract Documents, if applicable.

#### **D18. DETAILED WORK SCHEDULE**

- D18.1 The Contractor shall provide the Contract Administrator with a detailed work schedule at least two (2) Business Days prior to the commencement of any Work on the Site but in no event later than the date specified in C4.1 for the return of the executed Contract Documents if applicable.
- D18.2 The detailed work schedule shall consist of the following:
- (a) a critical path method (C.P.M.) schedule for the Work;
  - (b) a Gantt chart for the Work based on the C.P.M. schedule;
- all acceptable to the Contract Administrator.
- D18.3 Further to D18.2(a), the C.P.M. schedule shall clearly identify the start and completion dates of all of the following activities/tasks making up the Work as well as showing those activities/tasks on the critical path.
- (a) Commencement Date;
  - (b) Mobilization;
  - (c) Land Drainage Sewer and appurtenances on:
    - (i) McKenzie Street;
    - (ii) Parr Street;
    - (iii) St. Anthony Avenue;
    - (iv) Perth Avenue;
    - (v) Hartford Avenue;
    - (vi) Belmont Avenue;
    - (vii) Kilbride Avenue;
  - (d) Critical Stage – Work adjacent to École Belmont;

- (e) Connection of new 1650 mm LDS to existing 1650 mm LDS located on McKenzie Street south of Semple Avenue;
- (f) Surface restorations;
- (g) Substantial Performance;
- (h) Total Performance.

D18.4 In addition to the Detailed Work Schedule, the Contractor shall provide a plan and sequence of activities associated with the Critical Stage - Work adjacent to École Belmont described in D22.1(a) demonstrating how the Contractor intends to achieve the Critical Stage.

D18.5 Further to D18.2(b), the Gantt chart shall show the time on a weekly basis, required to carry out the Work of each trade, or specification division. The time shall be on the horizontal axis, and the type of trade shall be on the vertical axis.

## **SCHEDULE OF WORK**

### **D19. COMMENCEMENT**

D19.1 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.

D19.2 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 D12;
  - (ii) evidence of the workers compensation coverage specified in C6.15;
  - (iii) the Safe Work Plan specified in D13;
  - (iv) evidence of the insurance specified in D14;
  - (v) the contract security specified in D15;
  - (vi) the Subcontractor list specified in D16;
  - (vii) the equipment list specified in D17;
  - (viii) the detailed work schedule specified in D18; and
  - (ix) the direct deposit application form specified in D31
- (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.

D19.3 The City intends to award this Contract by July 2, 2025.

D19.3.1 If the actual date of award is later than the intended date, the dates specified for Commencement, Critical Stages, Substantial Performance, and Total Performance will be adjusted by the difference between the aforementioned intended and actual dates.

### **D20. WORK BY OTHERS**

D20.1 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 Contractor's 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.

D20.2 Work by others on or near the Site will include but not necessarily be limited to:

- (a) Rehabilitation of St. Anthony Avenue and Perth Avenue – Summer 2026;
- (b) Reconstruction of McKenzie Street – Summer 2026.

D20.3 Further to D20.1 the Contractor shall cooperate and coordinate all activities with all parties performing required Work by Others identified in D20.1 and accommodate the necessary area on Site required for the Work by Others to complete the Work

## **D21. WORKING DAYS**

D21.1 Further to C1.1(tt), the Contract Administrator's determination of whether or not atmospheric and Site conditions are such that a Working Day is deemed to have elapsed may be based at one time on one type of work while at another time a Working Day may be based on another type of work. When more than one type of major work is involved, the quantity of equipment that must be able to work in order to meet the requirements of a Working Day may vary considerably from that specified in the General Conditions.

D21.2 In the event that incidental work is behind schedule which, in the opinion of the Contract Administrator, should have been or could have been carried out by the Contractor in conjunction with or immediately following work of a major type, the City hereby reserves the right to charge Working Days on the incidental work until such time as it is up to schedule.

D21.3 When the major type of work involves restoration of the site to the condition it was prior to rainfall, Working Days shall not be charged.

D21.4 The Contract Administrator will furnish the Contractor with a daily record for each major type of work showing various information concerning the equipment, the time it worked, could have worked and Working Days charged. This report is to be signed each day by an authorized representative of the Contractor.

## **D22. CRITICAL STAGES**

D22.1 The Contractor shall achieve critical stages of the Work in accordance with the following requirements:

- (a) Critical Stage – Work adjacent to École Belmont shall be completed by October 1, 2025.
  - (i) The work associated with the Critical Stage shall include the completion of all underground works and permanent restoration works on:
    - (i) McKenzie Street from Belmont Avenue to the back lane located immediately north of Kilbride Avenue; and
    - (ii) Belmont Avenue from Canadian Pacific Railway right-of-way to McGregor Street.

## **D23. SUBSTANTIAL PERFORMANCE**

D23.1 The Contractor shall achieve Substantial Performance within one hundred and fifty (150) consecutive Working Days of the commencement of the Work as specified in D19, or March 13, 2026, whichever comes first.

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

D23.3 The date on which the Work has been certified by the Contract Administrator as being substantially performed to the requirements of the Contract through the issue of a certificate of Substantial Performance is the date on which Substantial Performance has been achieved.

## **D24. TOTAL PERFORMANCE**

D24.1 The Contractor shall achieve Total Performance within one hundred and seventy (170) consecutive Working Days of the commencement of the Work as specified in D19, or June 15, 2026, whichever comes first.

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 reinspected.

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. LIQUIDATED DAMAGES**

D25.1 If the Contractor fails to achieve Critical Stages, Substantial Performance or Total Performance in accordance with the Contract by the days fixed herein for same, the Contractor shall pay the City the following amounts per Working Day for each and every Working Day following the days fixed herein for same during which such failure continues:

- (a) Substantial Performance – two thousand three hundred dollars (\$2,300);
- (b) Total Performance – one thousand one hundred dollars (\$1,100).

D25.2 The amounts specified for liquidated damages in D25.1 are based on a genuine pre-estimate of the City's losses in the event that the Contractor does not achieve critical stages, Substantial Performance or Total Performance by the days fixed herein for same.

D25.3 The City may reduce any payment to the Contractor by the amount of any liquidated damages assessed.

## **D26. SUPPLY CHAIN DISRUPTION SCHEDULE DELAYS**

D26.1 The City acknowledges that the schedule for this Contract may be impacted by 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.

D26.2 If the Contractor is delayed in the performance of the Work by reason of 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.

D26.3 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 a Supply Chain Disruption, including but not limited to evidence related to availability ordering of Material or Goods, production and/or manufacturing schedules or availability of staff as appropriate.

D26.4 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 D26.3. Failure to provide this notice will result in no additional time delays being considered by the City.

D26.5 The Work schedule, including the durations identified in D22 to 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.

D26.6 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.

- D26.7 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.

## **CONTROL OF WORK**

### **D27. JOB MEETINGS**

- D27.1 Regular weekly job meetings will be held at the Site. These meetings shall be attended by a minimum of one representative of the Contract Administrator, one representative of the City and one representative of the Contractor. Each representative shall be a responsible person capable of expressing the position of the Contract Administrator, the City and the Contractor respectively on any matter discussed at the meeting including the Work schedule and the need to make any revisions to the Work schedule. The progress of the Work will be reviewed at each of these meetings.
- D27.2 The Contract Administrator reserves the right to cancel any job meeting or call additional job meetings whenever they deem it necessary.

### **D28. PRIME CONTRACTOR – THE WORKPLACE SAFETY AND HEALTH ACT (MANITOBA)**

- D28.1 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).

### **D29. THE WORKPLACE SAFETY AND HEALTH ACT (MANITOBA) – QUALIFICATIONS**

- D29.1 Further to B13.4, the Contractor/Subcontractor must, throughout the term of the Contract, have a Workplace Safety and Health Program meeting the requirements of The Workplace Safety and Health Act (Manitoba). At any time during the term of the Contract, the City may, at their sole discretion and acting reasonably, require updated proof of compliance, as set out in B13.4.

## **INVOICES & MEASUREMENT AND PAYMENT**

### **D30. MEASUREMENT AND PAYMENT**

- D30.1 C12.2 is deleted and replaced with the following:
- C12.2 The amounts to be paid by the City to the Contractor shall be as set out in the Payment Certification. In the event the Payment Certification does not align with the Contractor's Proper Invoice and payment by the City to the Contractor is not made, or not going to be made, for the invoiced amount within 28 Calendar Days of receipt of the Proper Invoice, the City will issue a notice of non-payment to the Contractor in accordance with the BLA.
- C12.2.1 For unit price Contracts, such sums shall be determined by the Contract Administrator upon the basis of the unit prices for the various classes of the Work stated on Form B: Prices. The total amount to be paid to the Contractor for the Work will be the amount arrived at by measuring the amount of each class of the Work listed on Form B: Prices and performed in accordance with the Contract, and pricing the same, in accordance with the unit prices stated thereon.
- C12.2.2 For lump sum Contracts, such sums shall be determined by the Contract Administrator upon the basis of the lump sum price stated on Form B: Prices, if applicable, but in any event the lump sum price broken down into the percentage completed for each portion of the Work, commonly referred to as detailed prices.
- D30.2 C12.7 to C12.15 are deleted and replaced with the following:

- C12.7 By the seventh (7) Calendar Day after the end of each month, the Contract Administrator shall issue to the Contractor a progress estimate indicating its opinion of the quantity and value of Work performed during the previous month. The Contractor may use the progress estimate to form part of its Proper Invoice as support of the type and quantity of Work performed. In the event the Contractor chooses to produce its own documentation of the type and quantity of Work performed to form part of its Proper Invoice, the content shall be in accordance with C12.2 and the format of such documentation should follow that of a typical progress estimate, including all evidence and records of measurement that the Contract Administrator would require to certify payment. In either event the Contractor shall include such supporting documentation as part of its invoice.
- C12.8 If the Contractor agrees with the progress estimate provided by the Contract Administrator it should indicate that on its Proper Invoice. If the Contractor does not agree with the progress estimate provided by the Contract Administrator it should attempt to reconcile the discrepancy, which could result in a revised progress estimate to be provided by the Contract Administrator or a revised invoice by the Contractor, so that the progress estimate and the Proper Invoice align. In the event that the discrepancy is not reconciled then the Contractor should detail the items within the progress estimate that it disagrees with in order that the value on the Proper Invoice aligns with and is supported by the progress estimate with noted discrepancies.
- C12.9 Any payment made by the City to the Contractor on account of a Proper Invoice shall be less any holdback required to be made by The Builders' Liens Act, and such holdbacks or other amounts which the City is entitled to withhold pursuant to the Contract.
- C12.10 If in the Contractor's opinion the Work performed during the previous month is minimal or does not warrant an invoice, the Contractor is permitted to not submit an invoice on the condition that the Contractor advises the Contractor Administrator in writing.
- C12.11 Unless agreed to by the Contract Administrator, in writing, on an exception basis, the Contractor shall not submit invoices more frequently than monthly.
- C12.12 Any reference to payment submittals or payment processes in the NMS Sections of the Contract are deleted and replaced with the payment submittals and payment processes within Section C12 of the General Conditions, as amended by the Supplemental Conditions.

## **FINAL PAYMENT**

- C12.13 The Contractor shall indicate on its invoice if it is the final invoice for Work performed under the Contract. Payment Certification, in response to receipt of the final Proper Invoice by the Contractor, shall be subject to the following conditions:
- (a) issuance by the Contract Administrator of a certificate of Total Performance;
  - (b) receipt by the City of a certificate from the Workers Compensation Board stating that full payment has been made to the Board with respect to all assessments owing.
- C12.14 Payment on account of the holdback made by the City pursuant to The Builders' Liens Act, shall be paid to the Contractor when the time for filing liens or trust claims has elapsed, unless the City is in receipt of a lien or trust claim.
- C12.15 Neither the issuance of a certificate of Total Performance nor the payment of the final Proper Invoice shall relieve the Contractor from their responsibilities either under C13 or as a result of any breach of the Contract by the Contractor including, but not limited to, defective or deficient Work appearing after Total Performance, nor shall it conclude or prejudice any of the powers of the Contract Administrator or the Chief Administrative Officer hereunder.

C12.16 Subject to C12.17, acceptance by the Contractor of payment on account of the final Proper Invoice shall constitute a waiver and release by them of all claims against the City whether for payment for Work done, damages or otherwise arising out of the Contract.

C12.17 If the Contractor disputes a Payment Certification related to a notice of non-payment by the City to the Contractor in accordance with the BLA, the Contractor may appeal the determination of the Contract Administrator to the Chief Administrative Officer as provided for in C21. If prior to the appeal being concluded, the Contractor gives a notice of adjudication to the City pursuant to the BLA, the appeal process will be discontinued.

## INVOICES

D30.3 Further to C12, the Contractor:

- (a) shall submit invoices for Work performed during the previous calendar month in accordance with the instruction on the City's website at: <https://www.winnipeg.ca/finance/corporate-accounts-payable.stm>; and
- (b) should copy the Contract Administrator on submission of its invoice.

## D31. PAYMENT

D31.1 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](https://winnipeg.ca/finance/files/Direct_Deposit_Form.pdf).

D31.2 Further to E4, no payment will be made for Cash Allowances other than as set out in E4.4.

## WARRANTY

### D32. WARRANTY

D32.1 Warranty is as stated in C13.

## DISPUTE RESOLUTION

### D33. DISPUTE RESOLUTION

D33.1 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 D33.

D33.2 The entire text of C21.4 is deleted, and amended to read: "Intentionally Deleted"

D33.1 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.

D33.2 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.

D33.3 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.

D33.4 As these negotiations are not an adjudicative hearing, neither party may have legal counsel present during the negotiations.

D33.5 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.

D33.6 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 D33.5, 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**

### **D34. INDEMNITY**

D34.1 Indemnity shall be as stated in C17.

D34.2 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.

D34.3 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

#### D35. FUNDING AND/OR CONTRIBUTION AGREEMENT OBLIGATIONS

D35.1 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.

D35.2 Further to D35.1, in the event that the obligations in D35 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.

D35.3 For the purposes of D35:

- (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.

D35.4 Modified Insurance Requirements

D35.4.1 If not already required under the insurance requirements identified in D14, 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.

D35.4.2 If not already required under the insurance requirements identified in D14, 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.

D35.4.3 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.

D35.4.4 Further to D14.3, 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.

D35.4.5 All policies must be taken out with insurers licensed to carry on business in the Province of Manitoba.

D35.5 Indemnification By Contractor

D35.5.1 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.

- D35.5.2 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.

#### D35.6 Records Retention and Audits

- D35.6.1 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.
- D35.6.2 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 D35.6.1 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.

#### D35.7 Other Obligations

- D35.7.1 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.
- D35.7.2 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.
- D35.7.3 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.
- D35.7.4 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.

- D35.7.5 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.
- D35.7.6 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.

## **ADJUSTMENTS FOR CHANGES IN LAW, TAX OR TARIFFS**

### **D36. ADJUSTMENTS FOR CHANGES IN LAW, TAX OR TARIFF**

- D36.1 Further to C12.4 and subject to C6.13, the Contract Price shall be adjusted if any change in a law or tax imposed under the Excise Act, the Excise Tax Act, the Customs Act, the Customs Tariff, The Mining Tax Act (Manitoba), or The Retail Sales Tax Act (Manitoba), by an act of the Congress of the United States of America, or by Executive Order by the President of the United States under the International Emergency Economic Powers Act of the United States of America or similar legislation:
- (a) occurs after the Submission Deadline;
  - (b) applies to Material; and
  - (c) affects the cost of that Material to the Contractor.
- D36.2 Further to C12.5, if a change referred to in C12.4 occurs, the Contract Price shall be increased or decreased by an amount equal to the amount that is established, by an examination of the relevant records of the Contractor, to be the increase or decrease in the cost incurred that is directly attributable to that change, and which the Contractor has proven to the Contract Administrator represents the minimum amount of increase necessary in order to obtain necessary Material or Plant. For the avoidance of doubt, the Contractor shall be required to provide satisfactory proof that it has investigated alternative options for obtaining equivalent Material or Plant and reducing or eliminating the increase in Contract Price, up to and including entering into purchase agreements with vendors located in other jurisdictions, in order for Contractor to be able to avail itself of the increase in Contract Price permitted.



**FORM K: EQUIPMENT**  
(See D17)

**JEFFERSON EAST COMBINED SEWER RELIEF – CONTRACT 10**

<p><b>1. Category/type:</b></p> <p>Make/Model/Year: _____ Serial No.: _____</p> <p>Registered owner: _____</p> <p>Make/Model/Year: _____ Serial No.: _____</p> <p>Registered owner: _____</p> <p>Make/Model/Year: _____ Serial No.: _____</p> <p>Registered owner: _____</p>
<p><b>2. Category/type:</b></p> <p>Make/Model/Year: _____ Serial No.: _____</p> <p>Registered owner: _____</p> <p>Make/Model/Year: _____ Serial No.: _____</p> <p>Registered owner: _____</p> <p>Make/Model/Year: _____ Serial No.: _____</p> <p>Registered owner: _____</p>
<p><b>3. Category/type:</b></p> <p>Make/Model/Year: _____ Serial No.: _____</p> <p>Registered owner: _____</p> <p>Make/Model/Year: _____ Serial No.: _____</p> <p>Registered owner: _____</p> <p>Make/Model/Year: _____ Serial No.: _____</p> <p>Registered owner: _____</p>

**FORM K: EQUIPMENT**  
(See D17)

**JEFFERSON EAST COMBINED SEWER RELIEF – CONTRACT 10**

<p><b>4. Category/type:</b></p> <p>Make/Model/Year: _____ Serial No.: _____</p> <p>Registered owner: _____</p> <p>Make/Model/Year: _____ Serial No.: _____</p> <p>Registered owner: _____</p> <p>Make/Model/Year: _____ Serial No.: _____</p> <p>Registered owner: _____</p>
<p><b>5. Category/type:</b></p> <p>Make/Model/Year: _____ Serial No.: _____</p> <p>Registered owner: _____</p> <p>Make/Model/Year: _____ Serial No.: _____</p> <p>Registered owner: _____</p> <p>Make/Model/Year: _____ Serial No.: _____</p> <p>Registered owner: _____</p>
<p><b>6. Category/type:</b></p> <p>Make/Model/Year: _____ Serial No.: _____</p> <p>Registered owner: _____</p> <p>Make/Model/Year: _____ Serial No.: _____</p> <p>Registered owner: _____</p> <p>Make/Model/Year: _____ Serial No.: _____</p> <p>Registered owner: _____</p>

## 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 B7. 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 B7.
- E1.4 The following are applicable to the Work:

<u>Drawing No.</u>	<u>Drawing Name/Title</u>
LD-13447	COVER
LD-13448	DRAWINGS INDEX, DESIGN NOTES, LEGEND & APPREVIATIONS
LD-13449	McKENZIE STREET – 17.0m NORTH OF JEFFERSON AVENUE TO 71.0m SOUTH OF PERTH AVENUE
LD-13450	McKENZIE STREET – 7.0m NORTH OF ST. ANTHONY AVENUE TO 69.0m SOUTH OF HARTFORD AVENUE
LD-13451	McKENZIE STREET – 8.0m NORTH OF PERTH AVENUE TO 55.0m SOUTH OF BELMONT AVENUE
LD-13452	McKENZIE STREET – 11.0m NORTH OF HARTFORD AVENUE TO 10.0m SOUTH OF KILBRIDE AVENUE
LD-13453	McKENZIE STREET – 55.0m NORTH OF BELMONT AVENUE TO SEMPLE AVENUE
LD-13454	ST. ANTHONY AVENUE – PARR STREET TO 92.0m WEST OF McKENZIE STREET
LD-13455	ST. ANTHONY AVENUE – 89.0m EAST OF PARR STREET TO 168.0m WEST OF McGREGOR STREET
LD-13456	ST. ANTHONY AVENUE – 13.0m EAST OF McKENZIE STREET TO 55.0m WEST OF McGREGOR STREET
LD-13457	PERTH AVENUE – PARR STREET TO 52.0m WEST OF McKENZIE STREET
LD-13458	PERTH AVENUE – 100.0m EAST OF PARR STREET TO 127.0m WEST OF McGREGOR STREET
LD-13459	HARTFORD AVENUE – 40.0m EAST OF PARR STREET TO 165.0m WEST OF McGREGOR STREET
LD-13460	HARTFORD AVENUE – 15.0m EAST OF McKENZIE STREET TO 40.0m WEST OF McGREGOR STREET
LD-13461	BELMONT AVENUE – 52.0m WEST OF McKENZIE STREET TO 152.0m WEST OF McGREGOR STREET
LD-13462	BELMONT AVENUE – 27.0m EAST OF McKENZIE STREET TO 40.0m WEST OF McGREGOR STREET
LD-13463	KILBRIDE AVENUE – McKENZIE STREET TO 40.0m WEST OF McGREGOR STREET
LD-13464	PARR STREET – 30.0m NORTH OF JEFFERSON AVENUE TO ST. ANTHONY AVENUE

LD-13465	PARR STREET – 31.0m NORTH OF ST. ANTHONY AVENUE TO 30.0m SOUTH OF HARTFORD AVENUE
LD-13466	DETAILS – MH10.6
LD-13467	STANDARD DETAILS – MONITORING AND INSTRUMENTATION

<u>Appendix No.</u>	<u>Title</u>
A	Test Hole Logs and Material Test Results
B	Geotechnical Data Report (GDR)

## **E2. SOILS INVESTIGATION REPORT**

- E2.1 Further to C3.1, Test Hole logs and material test results compiled during the design process are provided in Appendix A. The Test Hole logs and material test results are provided to supplement the Contractors evaluation of the Site conditions within the Work area. The information is considered accurate at the locations indicated and at the time of the investigation. However, considerable variations in soil conditions may exist between test holes and fluctuations in groundwater levels can be expected seasonally.
- E2.2 Further to C3.1, a Geotechnical Data Report (GDR) was completed in 2019 for the previous construction contract, Tender 1045-2019B: Jefferson East Combined Sewer Relief – Contract 5 – Semple Trunk Sewer. The GDR summarizes the testing and geotechnical conditions observed at the project site in 2019 along Semple Avenue between Scotia Street and McKenzie Street. This report includes geotechnical data collected at the project site and summary of anticipated subsurface conditions along the alignment. A copy of the GDR is included in Appendix B.

## **GENERAL REQUIREMENTS**

### **E3. OFFICE FACILITIES**

- E3.1 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 at a location approved by the Contract Administrator;
  - (c) the building shall have a minimum floor area of 25 m<sup>2</sup>, a height of 2.4 m with two (2) 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 or 24-25 degrees Celsius;
  - (e) the building shall be adequately lighted with fluorescent fixtures and have a minimum of three (3) wall outlets;
  - (f) the building shall be furnished with one desk, one drafting table, one meeting table, one filing cabinet, and a minimum of 12 chairs;
  - (g) a portable toilet shall be located near the field office building. The toilet shall have a locking door.
  - (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 he/she deems it necessary.

### **E4. CASH ALLOWANCE FOR ADDITIONAL WORK**

- E4.1 Additional Work may be necessitated due to unforeseen circumstances that may arise during the course of the project due to:
- (a) Additions to the scope of Work by the Contract Administrator, beyond that defined herein.
- E4.2 A cash allowance has been included on Form B: Prices.

- E4.3 The City reserves the right to delete any or all of the Cash Allowance from the Contract if the Work intended to be covered by the Cash Allowance is not required, or if the Works intended are found to be more extensive than the provisional Cash Allowance.
- E4.4 Cost of additional work shall be evaluated by the methods outlined in C7.4, and a Change Order prepared by the Contract Administrator. Cost of the Change Order will be paid on the Progress Estimate and deducted from the Cash Allowance. If the valuation of the authorized work exceeds the Value of the Cash Allowance, the Contract Value will be adjusted by the shortfall.
- E4.5 Additional services and/or Work will not be initiated for:
- (a) Reasons of lack of performance or errors in execution.
  - (b) Scheduling changes initiated by the City, where at least 24 hours' notice is given prior to the Contractors schedule time to be on Site.
- E4.6 Should it be determined that additional material or services are required, the Contract Administrator shall approve the Work, prior to commencement of the additional Work.
- E4.7 Material Mark-Up Factors in accordance with C7:
- (a) The base cost is to be the wholesale cost of the material, regardless of the Contractor or Subcontractor supplying the material.
  - (b) In general, the party (Contractor or Subcontractor) supplying the material is the party that purchases the material from a supplier who does not perform any work on Site, unless otherwise determined by the Contract Administrator.
  - (c) Where the Contractor is supplying the material, the mark-up on the material is limited to fifteen percent (15%).
  - (d) Where the Contractor's immediate Subcontractor is supplying the material the total mark-up on the material including all Subcontractors and the Contractor is limited to twenty-five percent (25%)
    - (i) The Subcontractor's mark-up on the material is limited to fifteen percent (15%);
    - (ii) The Contractor's mark-up on the material is limited to ten percent (10%).
  - (e) A Third-Level Subcontractor is a Subcontractor of a Subcontractor of the Contractor.
    - (i) No Third-Level Subcontractors on this project are approved for additional mark-up.
    - (ii) In the event that a Third-Level Subcontractor is utilized, that is not approved for additional mark-up, the Contractor is responsible for coordinating the split of the maximum approved mark-up between the Contractor and Subcontractors.

## **E5. TRAFFIC MANAGEMENT**

- E5.1 Description
- (a) This Specification shall revise, amend, and supplement the requirements of CW 1130 of the City of Winnipeg's Standard Construction Specifications.
- E5.2 General
- (a) Further to Section 3.7 of CW 1130 of the General Requirements the Contractor shall be responsible to redirect and maintain traffic with appropriate signing in accordance with The City of Winnipeg, "Manual of Temporary Traffic Control in Work Areas on City Streets at all times during construction.
  - (b) Maintain access for approaches, driveways, public lanes and crossing streets for all locations.
  - (c) Bus traffic must be maintained at all times or as approved by the Contract Administrator.
  - (d) The Contractor shall maintain access to all businesses during business hours, except where written authorization has been provided by the business.
  - (e) The Contractor shall maintain access to all schools, community centres, and other public buildings at all times.

- (f) Further to Section 3.6 of CW 1130 of the General Requirements, the Contractor shall maintain safe pedestrian crossings at intersections at all times. If possible, only one pedestrian crossing at an intersection is to be blocked by construction at any one time. If more than one pedestrian crossing is blocked by construction at an intersection at the same time the Contractor shall provide flag persons to safely escort pedestrians across the intersection. The Contractor shall leave pedestrian crossing locations safe and free of equipment that may hamper pedestrians when no construction activities are being performed at a particular crossing location.
- (g) Further to Clause 3.7 of CW 1130 of the General Requirements, 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.
- (h) The Contractor shall not park company or private vehicles inside the barricaded work zone in a manner that will block sightlines for vehicles and pedestrians approaching and crossing intersections.
- (i) The Contractor is responsible for maintaining safe vehicular and pedestrian traffic through their work site as identified herein. The Contractor shall rectify any unsafe conditions immediately upon notification. This could include but is not limited to, providing flag persons, clearing debris and snow from sites, moving equipment, and erecting additional signage.

#### E5.3 Residential Streets

- (a) Maintain at least one lane of traffic on residential streets. Where a lane of traffic cannot be maintained, the Contractor shall clearly close the street at the work zone to prevent damage to the boulevard and other surface features. All streets shall be signed as "Road Closed - Local Access Only".
- (b) The Contractor shall prioritize maintaining two lanes of traffic during regular school hours on Belmont Avenue, between the Canadian Pacific Railway right-of-way and McGregor Street, to allow access to École Belmont's parking lots and to facilitate student drop-off and pick-up. When two-lane traffic cannot be maintained, one lane of traffic shall remain open, and the duration of the single lane closure shall be minimized.
- (c) Where required, the Contractor shall provide notice of complete street shutdowns complete with dates and duration a minimum of five (5) Business Days prior to the street closures

#### E5.4 Submissions

E5.4.1 The Contractor shall submit a detailed traffic control plan for works occurring on McKenzie Street and all adjacent streets affected by the Work. The traffic control plan shall be submitted a minimum of ten (10) Business Days prior to commencement of work and include the following:

- (a) Details of lane closures on regional and non-regional streets; detours; access accommodations for local businesses; and access accommodations for pedestrians throughout any and all stages of construction;
- (b) Traffic control coordination, including traffic ramp locations, if required;
- (c) and construction staging/schedule.

#### E5.4.2 Street Lane Closures

- (a) The Contractor shall submit all lane closure requests to the Contract Administrator a minimum of five (5) Business Days prior to the planned work. Requests for lane closures shall include all required information for submission required by the City's online request form.
- (b) A link to the form can be found here:  
<https://www.winnipeg.ca/publicworks/transportation/roadConstructionLaneClosures.stm>

E5.4.3 All submitted traffic control plans are subject to review and acceptance by City of Winnipeg Traffic Management and Traffic Services divisions.

E5.5 Measurement and Payment

- (a) Traffic management as outlined herein will be considered incidental to the Work and will not be measured for payment. No separate payment will be made.

## E6. SITE DEVELOPMENT PLAN

E6.1 The Contractor shall provide the Contract Administrator with a Site Development Plan 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;
  - (i) The work areas adjacent to École Belmont shall be fully fenced.
  - (ii) Material staging and laydown areas, including fencing and gates;
  - (iii) Staging areas for other Work elements;
    - ◆ Slurry separation plant (if required);
    - ◆ Crane Pads;
  - (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.

E6.2 Security Fence

- (a) The temporary security fencing shall meet the following requirements:
- (i) Constructed of premanufactured steel panel sections;
  - (ii) Minimum height of 1.8 m;
  - (iii) Steel rails, posts, and fencing;
  - (iv) Non-climbing fence;
  - (v) Fence sections shall be clamped or bolted together to eliminate easy disassembly;
  - (vi) Fence sections shall be anchored to the ground and securely fastened to the existing fence at the termination points.

E6.3 Sound Attenuation

- (a) The City recognizes that long trenchless drives may require continuous operations, 24-hours per day, seven days per week during tunneling operations. The City will provide exemption to Neighbourhood Livability By-Law No. 1/2008 for critical and necessary tunneling operations required for this work. Work outside the times outlined in the By-Law will be restricted, including, but not limited to;
- (i) Operation of equipment only critical to tunneling operations;
  - (ii) Use of equipment meeting stringent noise output requirements;
  - (iii) Use of sound attenuation barriers and devices;
  - (iv) Use of equipment, trucks and other machinery that do not conform to the Livability By-Law for removal of spoils from site, brining materials to site, or other purposes not deemed essential for the tunneling operation, shall be prohibited.
  - (v) Monitor the ambient noise at the corner of the occupied building closest to noise generating equipment including but not limited to generators, cranes, and slurry separation equipment.
  - (vi) Provide equipment with enclosures or construct portable sound barriers to minimize noise impact.

- (vii) Provide a generator and other equipment with a “residential” silencer and acoustic enclosure. Provide equipment that continuously meets the noise requirements.
  - (viii) Provide equipment with mufflers, as needed, to mitigate the noise produced from construction.
  - (ix) Contractor shall be required to rearrange equipment to minimize noise impact as necessary.
  - (x) Construct slurry plant enclosure to mitigate noise and cold weather when and where needed.
- (b) For the purposes of determining normal background noise, monitor nearest residential site for a period of one week;
  - (c) For operations outside of restriction time frames set out in the By-Law (7:00 a.m. and after 9:00 p.m. on weekdays or before 9:00 a.m. and after 9:00 p.m. on Saturdays, Sundays and statutory holidays), the Contractor shall maintain sound levels lower than;
    - (i) 50 dBA as measured on a one-hour average;
    - (ii) 65 dBA as measured on a 15 minute average;
    - (iii) 5 dBA over the monitored average background levels.

#### E6.4 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. SHOP DRAWINGS

#### E7.1 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.

#### E7.2 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.

#### E7.3 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 for the following structural components shall bear the seal of a Registered Professional Engineer in the Province of Manitoba.
  - (i) Shoring
  - (ii) Reinforcing steel
  - (iii) Metal Fabrications
  - (iv) Pre-cast concrete structures
  - (v) Pipe design
- (c) Additional submittal requirements for each component of Work may be listed within the relevant specification section.

#### E7.4 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 Bid Opportunity 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 Bid Opportunity 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.

#### 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. ENVIRONMENTAL PROTECTION**

E8.1 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.

E8.2 The Contractor is advised that at least the following Acts, Regulations, and By-laws apply to the Work:

#### E8.2.1 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.

#### E8.2.2 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.

#### E8.2.3 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.

E8.3 The Contractor is advised that the following environmental protection measures apply to the Work.

#### E8.3.1 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.

#### E8.3.2 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 groundsheet 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.

#### E8.3.3 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.

#### E8.3.4 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.

#### E8.3.5 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.

#### E8.4 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.

#### E8.5 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.

### **E9. HYDRO EXCAVATION FOR UTILITY EXPLORATION**

#### E9.1 Description

##### E9.1.1 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 B7.
- (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.

## E9.2 Equipment

E9.2.1 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.

E9.2.2 Spray head shall be equipped with a rotating type nozzle, in order to provide a wider path of cut.

## E9.3 Construction Methods

### E9.3.1 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.

### E9.3.2 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.

### E9.3.3 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.

## E9.4 Measurement and Payment (Provisional Item)

E9.4.1 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".

## **E10. WATER SUPPLY**

E10.1 Further to Section 3.14 of CW 2140 and Section 3.7 of CW 1120 of the General Requirements water supply for the Work may be taken from City of Winnipeg hydrants.

E10.2 The Contractor shall make the following arrangements for hydrant turn on and turn off.

(a) Contact City of Winnipeg Water Services Division (WSD) for hydrant turn on and turn off required between 0800 hours and 1500 hours Monday to Friday. Notice for turn on and turn off shall be provided a minimum of 24 hours in advance.

(b) Contact Emergency Services Branch (204-986-2626) with a minimum of 2 hours notice for hydrant turn on and turn off required outside of the above hours.

(c) The Contractor shall wait at the hydrant from the requested turn on or turn off time until City staff arrives to turn on or turn off the hydrant.

E10.3 Hydrants shall be considered to be "in the Contractor's control" from the time the City has turned the hydrant on until the City has turned the hydrant off.

E10.4 Between November 1 and April 30 of any year, or whenever freezing temperatures are occurring or anticipated the Contractor shall take all necessary precautions to prevent freezing of hydrants and related appurtenances for hydrants in their control and shall be responsible to pump out hydrants turned off by Emergency Services.

E10.5 If a hydrant or appurtenance is damaged due to freezing or improper turn on or turn off procedures while in the Contractor's control, WSD will assess the damage and determine if WSD will repair the damage or if the Contractor will be responsible to repair the damage. Costs

for repairs completed by WSD will be deducted from payments owing the Contractor. Repairs completed by the Contractor will be at the Contractor's expense.

E10.6 The Contractor shall provide a traffic ramp for hydrant connection hoses that cross roadways. The ramp shall be designed and constructed to not present a hazard to vehicles travelling over it and to ensure that no part of the hose is run over by a motor vehicle.

E10.7 Measurement and Payment

(a) Charges incurred for the permits and water meters shall be paid for by the Contractor when the permit is taken out. The Contractor shall forward the invoice to the Contract Administrator for reimbursement. The billing for water usage sent to the Contractor shall be forwarded to the Contract Administrator for payment. The Bid Opportunity number shall be noted on each permit.

(b) All other costs associated with sourcing construction water will be considered incidental to the Work and will not be measured for payment. No additional payment will be made.

## **E11. RED RIVER WATER LEVELS**

E11.1 Normal Red River water levels are as follows.

(a) Normal Summer Water Level (NSWL) (normally early June to late October) – 223.70 geodetic (approximate);

(b) Winter Water Level (NWWL) (normally late November to late March) – 221.77 geodetic (approximate).

E11.2 Red River water levels rise considerably in the spring (typically mid March) due to ice break-up and snow melt. River crest elevations of 228.00 geodetic or higher are not unusual.

E11.3 River elevation may also increase in the summer due to heavy rainfall in the areas south of Winnipeg. Summer river crests are usually lower and of shorter duration than spring crests.

E11.4 No work on riverbanks or areas potentially in flood plain shall be scheduled after March 15 of a given year. The Contractors shall be prepared at all times to evacuate the work area due to sudden changes in river elevations and flows.

E11.5 The following web site link <https://legacy.winnipeg.ca/waterandwaste/flood/riverLevels.stm> graphs historic Red River levels month by month back to 1990. The elevations shown are in imperial measurement and are referenced to "James Avenue Datum" which is elevation 221.76 geodetic.

E11.6 The existing 1800 mm LDS on Semple Ave discharges directly to the Red River. The Red River backs up into the 1800 mm LDS under NSWL conditions, therefore isolation of the Work may be necessary depending on means and methods of the Contractor. The Contractor shall be responsible to isolate the work area from elevated river levels by means of plugs, sandbag dikes, or other means. Maintain upstream flows in accordance with E12. Blocking of the 1800 mm LDS is not permitted.

E11.7 Submittals

(a) The Contractor shall submit a plan documenting the procedures, materials and equipment which will be used to isolate the work site from the river prior to mobilizing to site.

E11.8 Measurement and Payment

(a) No measurement of payment shall be made for protection of the site from river levels.

## **E12. MAINTAINING EXISTING SEWER FLOWS, FLOW CONTROL, DIVERSIONS AND BYPASS PUMPING**

E12.1 Maintaining Existing Sewer Flows, Flow Control, Diversions and Bypass Pumping required to complete the Works in the Contract shall be incidental to the Contract as per Clause 4.16.1 of CW 2130.

## **E13. SEWER PIPE FOR LARGE DIAMETER TRENCHLESS INSATLLATION**

E13.1 Description

E13.1.1 General

(a) This Specification covers large diameter piping ( $\leq 1200\text{mm}$ ) for trenchless jacking installation

E13.1.2 Reinforced Concrete Jacking Pipe

(a) Reinforced concrete jacking pipe shall conform to CW 2130, ASTM C76 and CSA A257.

(b) Minimum pipe class as shown on Drawings

(c) Jacking Pipe shall be a "C-Wall" design.

(d) Pipe classes for jacking pipe 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 his 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.

(e) 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.

(f) External joint bands shall conform to CW 2130 and ASTM A36.

(g) Pipe shall have achieved full design strength before installation.

(h) Perform a minimum of one (1) three-edge bearing test in accordance with ASTM C76 and C497. 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 five (5) working days advance notice to the Contract Administrator prior to undertaking the test.

E13.2 Submittals

E13.2.1 Submit Shop Drawings for reinforced concrete jacking pipe in accordance with ASTM C76 and CW 2160. Shop Drawings shall include the following:

(a) All pipe and joint dimensions

(b) Steel reinforcement configuration

E13.2.2 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).

E13.3 Construction Methods

- (a) Sewers shall be installed in accordance with CW 2130 and E13.

E13.4 Measurement and Payment

- E13.4.1 Measurement and payment for sewer installation shall be in accordance with CW 2130.

**E14. TRENCHLESS EXCAVATION**

- E14.1 Further to Clause 3.4.1 of CW 2130, all sewers shall be installed by trenchless methods.

- E14.2 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.

- E14.3 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.

- E14.4 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.

E14.5 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 on 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.

- E14.6 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 E15.

## **E15. TRENCHLESS EXCAVATION OBSTRUCTIONS**

E15.1 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.

E15.2 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 first four (4) hours of handling obstructions for each occurrence shall be the responsibility of the Contractor.
- (b) Equipment rates 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 E15.2(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.

## **E16. EXCAVATION, BEDDING AND BACKFILL**

E16.1 General

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

E16.2 Submittals

- (a) Submit shoring designs, in accordance with CW 2030.

E16.3 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.

E16.4 Jacking Shaft Design

- (a) Select methods of shaft excavation and initial ground support that are compatible with proposed construction methodology, and with requirements for placement of permanent structures, control of water, safety of personnel, and protection of adjacent property.
- (b) Establish the size and configuration of shaft excavation to accommodate means and methods of construction, subject to minimum requirements and to any limitations shown on the Drawings and Specifications.

- (c) Shafts shall consider thrust design for proposed jacking methods. Provide estimated jacking forces and thrust restraint design in shaft design submission.
- (d) Thrust restraint that would interfere with future pipe installations for extension of sewers shall be fully removed to permit future installation on completion of construction

#### E16.5 Shaft Security

- (a) Provide shaft security protection to a minimum height of 1 metre above grade.
- (b) Secure shaft excavations deeper than 3 metres during all periods when shaft site is unoccupied by Contractor or security personnel, including routine absences such as lunch breaks, overnight, and weekends.
- (c) Security measures shall be designed to deter vandalism, and to prevent unauthorized or accidental entry of persons, animals, or objects into the shaft. Minimum security measures shall consist of items (i) or (ii) or below. Item (iii) is required at all locations:
  - (i) temporary shaft cover consisting of a rigid steel frame covered with steel mesh, expanded metal, or equal, with sufficient structural capacity to support persons standing on the cover;
  - (ii) temporary shaft cover consisting of steel or nylon netting, with sufficient structural capacity to support persons standing on the netting; fully secured to the extended shaft lining; and,
  - (iii) chain link security fence conforming to these Specifications, installed on the shaft work site perimeter; closed and locked whenever the site is unattended by Contractor's personnel.
- (d) Excavations which are exposed to public vehicular traffic, including run-off-the-road traffic, shall be barricaded along the exposed side with portable concrete "Jersey barriers" designed and positioned to deflect errant vehicles.

#### E16.6 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.

#### E16.7 Foundation, Bedding and Backfill

- (a) Type 3 foundations shall be used in all shafts.
- (b) Type 3 Class B bedding shall be used in place of sand in all shafts.
- (c) Type 3 initial backfill material shall be used in place of sand in all shafts.
- (d) All shafts located within one (1) metre of paved areas on Regional streets shall be backfilled with Class 1 backfill as per SD-002.
- (e) All shafts located within one (1) metre of paved areas of Non-Regional streets shall be backfilled with Class 2 or Class 3 backfill as per SD-002.
- (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.

#### E16.8 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 sewer pipe. No separate measurement or payment will be made.

## **E17. RE-GRADING OF EXISTING SEWER SERVICES**

### **E17.1 Description**

- (a) This Specification shall supplement CW 2110 for the re-grading of existing sewer services that may be required for existing sewer service connections that are in conflict with the proposed LDS alignment.

### **E17.2 Construction Methods**

- (a) The Contractor shall review critical locations to identify areas where sewer services may be in conflict with the LDS alignment. Critical locations shall be established prior to construction of new LDS.
- (b) The Contractor shall locate sewer services in areas of potential conflict with LDS alignment, where LDS is above or in close proximity to combined sewer.
- (c) Contractor shall vertically re-align sewer services where the proposed LDS infringe on City of Winnipeg UGS minimum clearance requirements or where the existing sewer service conflicts with the new LDS.
- (d) Prior to performing the vertical re-alignment of a sewer service, Contractor shall perform all hydro-excavation according to E9 and determine the location of the existing gravity main and review the three-dimensional location of the gravity main with the Contract Administrator. If the location of the gravity main is within the clearance limits required by UGS, the Contractor shall perform the vertical re-alignment of the gravity main.

### **E17.3 Measurement and Payment (Provisional Item)**

- (a) Measurement and payment for Re-Grading of Existing Sewer Services 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 "Re-Grading of Existing Sewer Services".
- (b) Measurement and payment for utility exploration will be measured and paid in accordance with E9.

## **E18. CONNECTING TO EXISTING 1650 LDS**

### **E18.1 Description**

- (a) This Specification supplements and amends the City of Winnipeg Standard Construction Specification CW 2130 Gravity Sewers and shall cover the connection of the new 1650 mm land drainage sewers to the existing 1650 mm land drainage sewer by construction of a cast-in-place concrete collar.

### **E18.2 Materials**

- (a) Excavation, Bedding and Backfill
  - (i) As per CW 2030, E16, and Drawings
- (b) Formwork, Reinforcing Steel and Concrete
  - (i) As per CW 2160 and Drawings
- (c) Concrete Mix Design
  - (i) As per CW 2160 and Drawings

### **E18.3 Submittals**

- (a) Shoring design in accordance with CW 2030
- (b) Reinforcing steel Shop Drawings and concrete mix design in accordance with CW 2160

### **E18.4 Construction Methods**

- (a) As per CW 2160 and Drawings

- (b) Confirm locations and elevations of existing utilities prior to construction. Protect and support existing utilities in accordance with the requirements of the utility owner. Utilities may not be interrupted. Any proposed interruptions or temporary relocations will require permission of the utility owner and Contract Administrator.

#### E18.5 Measurement and Payment

- (a) The connection of the new 1650 mm land drainage sewer to the existing 1650 mm land drainage sewer shall be measured on a Unit Price basis and paid for at the Contract Unit Price for "Connection to Existing LDS – 1650mm to 1650mm". The Unit Price shall include but not be limited to locating and excavating to the existing pipe, removal of existing plug, constructing a cast-in-place concrete collar connection to the existing sewer, shoring, dewatering, bedding, backfill and performing all operations necessary to complete the Works as specified and as indicated on the Drawings including all items incidental to the Works.

### **E19. PRECAST CONCRETE MANHOLE MH10.6 (MCKENZIE ST AT KILBRIDE AVE)**

#### E19.1 Description

- (a) This specification shall cover the supply and installation of MH10.6 and shall supplement CW 2130.
- (b) Pre-cast manhole on cast-in-place concrete base slab to be installed where 1650 LDS installation is uninterrupted drive.
- (c) Pre-cast manhole to be installed in accordance with CW 2130 where 1650 LDS installed with multiple drives.

#### E19.2 Submittals

- (a) Submit Shop Drawings in accordance with CW 1110 and E7.3 of this specification showing pipe openings, reinforcing, and joint details, signed and stamped by a Professional Engineer registered in the Province of Manitoba.

#### E19.3 Materials

- (a) Excavation, Bedding, and Backfill
  - (i) As per CW 2030, E16, and Drawings
- (b) Formwork, Reinforcing Steel and Concrete
  - (i) As per CW 2160 and Drawings.
- (c) Concrete Mix Design
  - (i) As per CW 2160 and Drawings.
- (d) Extrudable Water Stop
  - (i) Gun Grade extrudable polyurethane based water stop, SikaSwell S2 by Sika, or Approved Equal in accordance with B7.
- (e) Manhole
  - (i) As per CW 2130 and Drawings

#### E19.4 Submittals

- (a) Shoring design in accordance with CW 2030.
- (b) Reinforcing steel Shop Drawings and concrete mix design in accordance with CW 2160.
- (c) Manhole drawings in accordance with CW 2160

#### E19.5 Construction Methods

- (a) As per CW 2160 and Drawings

#### E19.6 Method of Measurement and Basis of Payment

- (a) The construction of MH10.6 shall be measured on a Lump Sum basis and paid for at the Contract Lump Sum Price for "Precast Concrete Manhole MH10.6". The Lump Sum price shall include but not be limited to located and excavating to the new 1650 LDS pipe, locating existing utilities, supporting existing utilities, cutting the existing pipe, shoring, manhole sections, backfill, cast-in-place concrete works, dewatering and performing all operations necessary to complete the Works as specified and as indicated on the Drawings including all items incidental to the Works.

## **E20. TEMPORARY SURFACE RESTORATION**

### **E20.1 General**

- (a) This specification applies to temporary surface restoration Work.
- (b) Further to clause 3.3 of CW 1130 where permanent surface restorations cannot be made due to cold weather or as directed by the Contract Administrator, the Contractor shall temporarily restore surfaces as follows:

### **E20.2 Construction Methods**

- (a) Backfill under Temporary Surface Restoration
  - (i) Backfill and level boulevards and grassed areas to match existing surface elevations.
  - (ii) Use Class 2 backfill in excavation under temporary street pavement and sidewalk where Class 3 backfill cannot be jetted and flooded due to cold weather.
  - (iii) Class 2 backfill may be compacted in 600 mm lifts where backhoe operated pneumatic plate compactors are used.
  - (iv) Jet and flood Class 2, Class 3 and Class 5 backfilled excavations in spring when ground is not frozen prior to permanent restoration.
- (b) Temporary Surface Restoration
  - (i) Cap excavations in concrete pavement with a 100 mm layer of concrete for "Temporary Restoration of Utility Pavement Cuts" as specified in CW 3310.
  - (ii) Cap excavations in sidewalk pavement with a 50 mm layer of concrete for "Temporary Restoration of Utility Pavement Cuts" as specified in CW 3310.
  - (iii) Insulate temporary concrete as required during 48 hour curing period.
  - (iv) Where curb has been removed as part of the pavement cut pour temporary curb using "Concrete for Temporary Restoration of Utility Pavement Cuts" as specified in CW 3310.
  - (v) Remove all temporary pavements prior to permanent restorations.
- (c) Maintenance
  - (i) The Contractor shall monitor and maintain temporarily restored surfaces as required until permanent restoration is complete.
  - (ii) If, in the opinion of the Contract Administrator, temporarily restored surfaces are not being adequately maintained or were not properly constructed and pose a danger to the public, maintenance or reconstruction will be done by the City forces with no advance notification the Contractor.
  - (iii) All costs associated with the maintenance or reconstruction of temporary pavement incurred by the City shall be deducted from future payments to the Contractor.

### **E20.3 Measurement and Payment (Provisional Item)**

- (a) Temporary restoration will be measured on unit price basis as listed in Form B: Prices. Payment will be made at the Contract Price for "Temporary Surface Restorations".
- (b) No extra payment will be made for the installation of Class 2 backfill under temporary street pavement and sidewalk.

- (c) No measurement or payment will be made for the temporary restorations of boulevards and grassed areas.
- (d) No measurement or payment will be made for the removal of temporary pavement prior to permanent restoration.

## E21. PERMANENT RESTORATION

### E21.1 Description

- (a) This specification identifies the requirements for permanent surface restorations.
- (b) The specification amends the Surface Restorations defined in CW 2130 and places the cost of permanent surface restorations upon the particular Work item being undertaken.

### E21.2 General

- (a) The Contractor will follow the City's Street By-law No. 1481/77 and Street Cuts Manual (2024) for all pavement restoration unless otherwise shown on the drawing or specifications or as directed by the Contract Administrator. The Contractor or their subcontractor shall hold a Restoration Contractor's License issued under the Streets By-law in order to restore pavement cuts in accordance with the City of Winnipeg Street Cuts Manual.
- (b) The Street Classification and Surface Type within the project work area are classified as follows:

Street Name	Segment	Priority	Pavement Type	General Condition
McKenzie Street	Jefferson Avenue to Semple Avenue	P3	Concrete	Poor
St. Anthony Avenue	Parr Street to McGregor Street	P3	Concrete	Poor
Perth Avenue	Parr Street to McGregor Street	P3	Concrete	Poor
Hartford Avenue	Parr Street to McGregor Street	P2	Asphalt	New
Belmont Avenue	Rail Right-of-Way to McGregor Street	P3	Concrete	Fair
Kilbride Avenue	McKenzie Street to McGregor Street	P3	Concrete	Good
Semple Avenue	Rail Right-of-Way to McGregor Street	P3	Asphalt Over Concrete	New
Parr Street	Jefferson Avenue to Hartford Avenue	P3	Asphalt Over Concrete	Good
<p>Note: Values obtained from City of Winnipeg Street Conditions Map available at:  <a href="https://winnipeg.ca/publicworks/maps/streetconditions.asp">https://winnipeg.ca/publicworks/maps/streetconditions.asp</a>                      Conditions reported at the time of posting may not reflect existing conditions.</p>				

- (c) All street segments within the work area impacted by the Work as determined by the Contract Administrator shall be maintained and restored with the following additional requirements.
  - (i) Review and record the condition of each street segment with the Contract Administrator and a City Representative from Public Works prior to the initiation of Work.
  - (ii) Review and record the condition of each street segment with the Contract Administrator and a City Representative from Public Works prior to surface restoration. The surface restoration required for each street segment will be agreed upon at this review meeting.

(iii) Pavement Restoration Guidelines can be found in the City of Winnipeg Street Cuts Manual and are summarized below.

(i) Asphalt and Asphalt over Concrete:

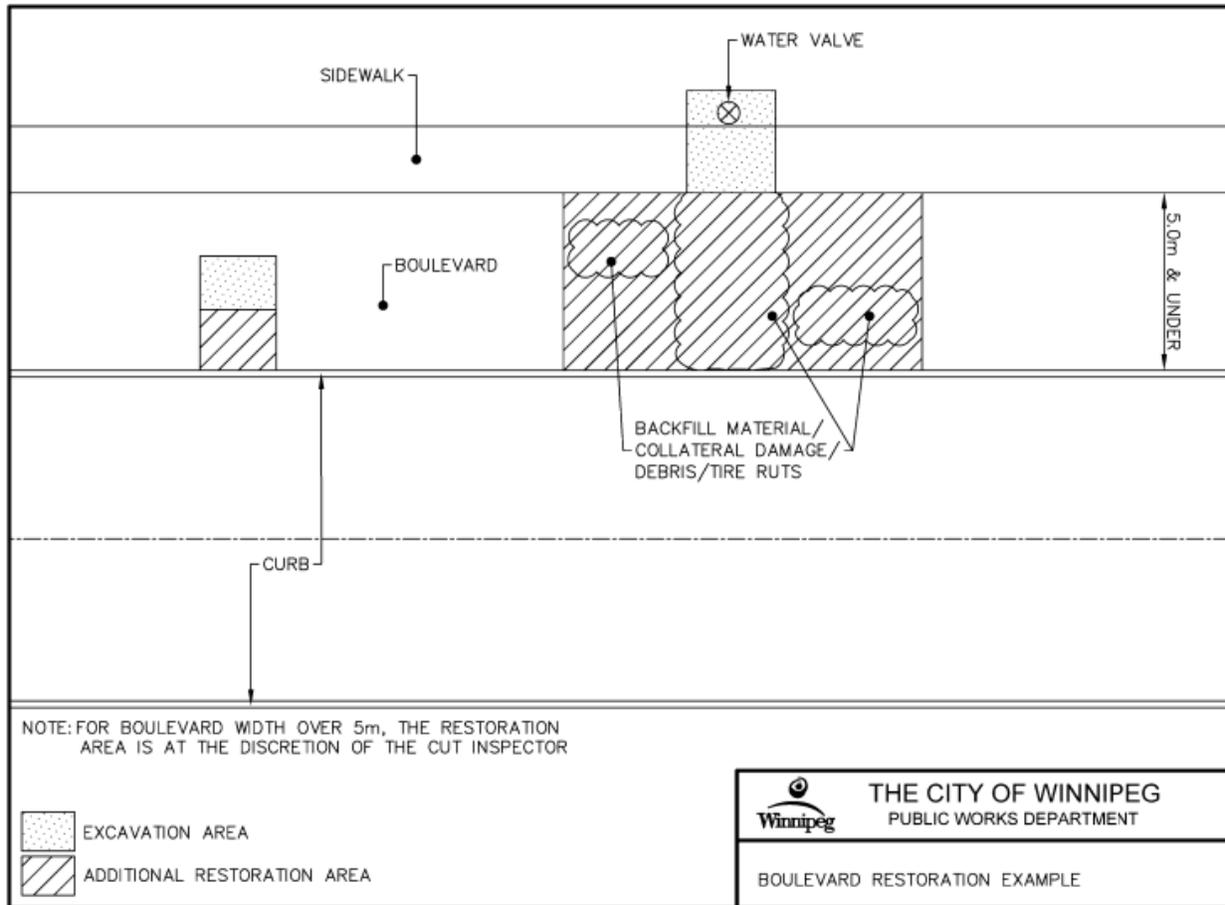
<b>Rated Pavement Condition of Segment</b>	<b>Regional Streets</b>	<b>Non-Regional Streets</b>
	<b>Action Required</b>	<b>Action Required</b>
<b>New</b>	Grind and repave full lane width, and length of excavation or project <i>(see Pavement Restoration Requirements for Series of Cuts)</i>	Grind and repave full lane width, and length of excavation or project <i>(see Pavement Restoration Requirements for Series of Cuts)</i>
<b>Good</b>		
<b>Fair</b>		Decision after inspection by Public Works Department <i>(see Notes A-2, A-3 and Restoration Example)</i>
<b>Poor</b>	Decision after inspection by Public Works Department <i>(see Notes A-2, A-3 and Restoration Example)</i>	Isolated repairs accepted

(ii) Portland Cement Concrete:

Rated Pavement Condition of Segment	Regional Streets	Non-Regional Streets
	Action Required	Action Required
New	Full panel repair	Full panel repair
Good		
Fair	Decision after inspection by Public Works Department (see Notes B-2 and Restoration Example)	Decision after inspection by Public Works Department (see Notes B-2 and Restoration Example)
Poor		Isolated repairs accepted

E21.3 Methods

- E21.3.1 The Contractor shall permanently restore all existing surface areas disturbed by construction activities including but not limited to areas disturbed by; construction equipment, placement of equipment trailers and where construction materials were stockpiled, shall be restored as follows:
- (a) Full depth partial slab patches in accordance with CW 3230.
  - (b) Boulevards, ditches and grassed areas - sodding using imported topsoil in accordance with CW 3510. The Contractor shall restore all areas disturbed during construction to existing condition or better, using topsoil and sod at its own cost.
    - (i) All boulevard restoration areas shall be rectangular in shape and extend to the back of curb if boulevard width is five (5) meters or less.
    - (ii) Collateral damages shall be included for the restoration area which encompasses access to the cut area, stored debris and backfill material piles, ruts, concrete work, and any other action that may cause damage to the cut location.
    - (iii) Boulevard restoration shall be as summarized below:



- (c) Asphalt surfaces – match existing base course and asphalt thickness or a minimum of 150 mm of base course and 75 mm of Type 1A Asphaltic Concrete, whichever is greater, in accordance with CW 3410.
- (d) Miscellaneous concrete slabs, including sidewalk - in accordance with CW 3235.
- (e) Interlocking stones – in accordance with CW 3330.
- (f) Concrete curb and gutter – in accordance with CW 3240.
- (g) Trees - requiring replacement due to construction activities (as directed by the Contract Administrator) shall be installed in accordance with CW 3510. The Contractor will not be reimbursed under a separate pay item for replacing trees damaged by construction activities. The work will be considered incidental to the Work.

#### E21.4 Measurement and Payment

- (a) All costs associated with Permanent Restoration as described herein, including but not limited to the construction of sewers, manholes, catch basins, catch basin leads, catch pits, sewer services, connections, and other related Work, will be measured on a Unit Price basis in accordance with CW 2030 as listed in Form B: Prices. Payment will be made at the Contract Price for "Permanent Restoration".
- (b) Permanent Restoration for pavement repairs related to provisional items not identified on the Drawings will be measured on a unit price basis and payment will be made in accordance with the unit prices listed on Form B: Prices.

## **E22. PROVISIONAL ITEMS**

- E22.1 The Provisional Items listed on Form B: Prices are part of the Contract.
- E22.2 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.
- E22.3 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.

## **E23. SURVEY, INSTRUMENTATION AND MONITORING**

### **E23.1 Description**

- (a) The work specified in this Section includes furnishing and installing geotechnical instrumentation to monitor potential movements to surface features, utilities, and ground around and above tunnelling operations, and all excavations. The work includes, but is not limited to installing: utility monitoring points, structure monitoring points, and video inspection of combined sewers. Also included are furnishing monitoring equipment before tunnelling and excavation work.
- (b) The Contractor is responsible for surveying the elevations and locations of the instruments in accordance with the requirements herein. Baseline readings and elevations shall be determined before shaft or tunnel construction begins to establish a baseline, and during and after operations to monitor any movements related to the tunnelling and shaft construction.
- (c) Further to CW 1130, the Contract Administrator will establish base line surveys, and pipe alignment at all shaft locations. The Contractor shall conduct all in tunnel surveys.

### **E23.2 Materials**

- (a) Utility Monitoring Point: Install as identified herein.
  - (i) Bracket anchors to be stainless steel.
  - (ii) Anchor adhesive: Hilti HIT-HY 200-A or equal.
- (b) Building/Structure Monitoring Point: Structural monitoring points shall be established by an inscribed marking ,approved prism mounted securely to the structure or equal. Each control point shall have a tag or marking indicating the identification number and offset from centerline.

### **E23.3 Submittals**

- (a) Submittals shall be made in accordance with the requirements identified in E7 and as listed below.
- (b) Submit the following, at least ten (10) Business Days before scheduled installation of instruments:
  - (i) Instrumentation Installation Schedule: Submit the proposed schedule for installing the instruments.
  - (ii) Description of methods and materials for installing and protecting instruments.
  - (iii) Confirmation that monitoring points will be installed at locations as specified herein, or if deviations are proposed, submit Shop Drawings with locations of proposed monitoring points shown in plan and profile.
- (c) Reports and Records:
  - (i) The Contractor shall submit all reports of monitoring data to the Contract Administrator within 24 hours.
  - (ii) Within 72 hours following installation of the instruments, submit drawings showing the actual as-built installed location, the instrument identification number, the instrument type, the installation date and time, and the tip elevation and instrument

length where applicable. Include details of installed instruments, accessories and protective measures, including all dimensions and materials used.

- (iii) Submit surveyed measurements of all instruments for at least fourteen (14) Calendar Days prior to commencing shaft excavation to establish baseline readings.
- (iv) Submit pre and post construction surveys including photographs, video, field notes, and sketches along the entire alignment. Surveys should concentrate on significant man made features along the alignment including buildings, gutters, sidewalks, driveways, and other structures or improvements.

#### E23.4 Quality Control

- (a) Settlement surveying shall be performed by a competent individual with previous experience surveying for the detection of surface deformations. Record the initial elevations of movement detection instruments to 0.001 meter.
- (b) Install all monitoring points and instrumentation at locations identified in E23.5(a), or as directed by the Contract Administrator.
- (c) Should actual field conditions prevent installation of instruments at any of the locations identified in E23.5(a), obtain acceptance from the Contract Administrator for new instrument location and elevation.
- (d) Surveying of instrumentation shall be referenced to the same control points and benchmarks established for setting out the work. Control points shall be tied to benchmarks and other monuments outside of the zone of influence of the excavation.
- (e) Installation of instrumentation shall, at all times, be performed in the presence of the Contract Administrator.

#### E23.5 Construction Methods

##### E23.5.1 General Requirements

- (a) Instrumentation shall be installed at the locations identified on the Drawings, and as set out herein E23.5(a). Instruments shall be installed in accordance with the submitted and reviewed installation schedule.
- (b) Record and report depth of utilities found during utility monitoring point installation.
- (c) The Contractor shall confirm locations of underground utilities in all areas where holes are to be drilled and instruments installed. Instrument locations shall be modified, as accepted by the Contract Administrator, to avoid interference with the existing utilities. Repair damage to existing utilities resulting from instrument installations at no additional cost to the City.
- (d) The Contractor shall provide access and assistance to the Contract Administrator for obtaining supplemental monitoring data, as requested by Contract Administrator.

##### E23.5.2 Installation of Instruments

- (a) Monitoring instrumentation shall be installed in the following locations:
  - (i) Utility Monitoring Points: Install utility monitoring points at locations indicated on the Drawings.
    - ◆ Utility monitoring point brackets to be mounted in base of existing manholes.
    - ◆ Brackets to be suitable length to allow monitoring to be conducted from the surface
  - (ii) Building Monitoring Points: install building monitoring points as generally described below. Contact residence or business owner prior to installation for approval.
    - ◆ At building point nearest to all shafts identified in Drawings
    - ◆ At École Belmont adjacent to Mckenzie Street on side of street nearest the tunnel, minimum of two (2).

- (b) Perform pre-construction and post-construction video inspection of all combined sewers adjacent to proposed tunneling shafts in accordance with CW 2145. The limits of video inspection shall extend 10 meters beyond the length of the adjacent shaft wall. Coding of the video inspection is not required.

E23.5.3 Following completion of the work, all instrumentation shall be removed or abandoned according to applicable codes and standards and as described herein, unless otherwise noted.

E23.5.4 Instrument Protection, Maintenance, and Repair

- (a) Protect the instruments and surface control points from damage. Damaged installations shall be replaced or repaired prior to continuing excavation, or tunnelling, unless permitted otherwise in writing by the Contract Administrator.

E23.5.5 Response Values

- (a) The following response values shall be utilized for monitoring:
  - (i) Existing Buildings:
    - ◆ Threshold Value: 1 mm
    - ◆ Response Value: 3 mm
    - ◆ Shutdown Value: 6 mm
  - (ii) Utility Monitoring Points:
    - ◆ Threshold Value: 6 mm
    - ◆ Response Value: 12 mm
    - ◆ Shutdown Value: 25 mm
- (b) When the instruments indicate movement equal to the Threshold Value, the Contractor shall meet with City to discuss his construction means and methods to determine what changes, if any, shall be made to better control ground movement. Instrument readings shall be required on a daily basis until readings remain unchanged for five (5) consecutive days.
- (c) When the instruments indicate movement equal to the Response Value, the Contractor shall actively control ground movement in accordance with the reviewed plan to prevent reaching the Maximum Allowable Value. Instrument readings shall be required on a daily basis until readings remain unchanged for five (5) consecutive days.
- (d) When the instruments indicate movement equal to the Shutdown Value, the Contractor shall stop all work immediately, and meet with the Contract Administrator to develop a plan of action before work can be resumed.

E23.5.6 Duration of Monitoring

- (a) Settlement monitoring shall commence prior to excavation for the tunnelling shaft construction.
- (b) Settlement monitoring shall continue for thirty (30) Calendar Days following the backfill and removal of shoring used for tunnelling operations, or as directed by the Contract Administrator.

E23.5.7 Abandonment of Instruments

- (a) Control Points: All surface control points on public property shall remain in place at the completion of the work. Remove all surface control points on private property during the cleanup and restoration work, or as required by the Contract Administrator.
- (b) Monitoring Instruments:
  - (i) Upon completion of the Work, abandon all utility settlement monitoring points by removal of bracketing and cutting anchors flush concrete surface.
  - (ii) Structural monitoring points shall be removed by the Contractor after completion of the Work and as allowed by the Contract Administrator. The sites shall be restored to the conditions existing prior to installation of the structural monitoring points.

## E23.6 Measurement and Payment

- (a) Supply, installation and execution of settlement monitoring and video inspection as specified herein shall be measured on a unit basis for each location and type of instrumentation installed, as listed in Form B: Prices. Payment will be made at the Contract Price for "Instrumentation and Monitoring" for each location and type of instrumentation as listed in Form B: Prices.
- (b) Payment shall include but not be limited to the supply, installation and protection of the instruments, video inspection, replacement or repair of damaged utilities, performing baseline measurements, ongoing monitoring, provision of electronic monitoring results, submission of data, and abandoning of the instruments.
- (c) Payment for instrumentation and monitoring will be made on the following schedule:
  - (i) Fifty percent (50%) of the price will be paid following the installation of each instrument and establishment and provision of baseline measurements.
  - (ii) The remaining fifty percent (50%) will be paid upon completion of the monitoring program as specified herein.
  - (iii) Video inspection will be paid following the completion of Pre-Construction Sewer Inspection and Post-Construction Sewer Inspection at each location of inspection.

## E24. BUILDING INSPECTIONS AND VIBRATION MONITORING

### E24.1 Description

- (a) The work specified in this Section includes furnishing of vibration monitoring instrumentation to monitor vibrations on nearby structures caused by construction activities.
- (b) Depending on the means and methods chosen by the Contractor, implementation of vibration monitoring may or may not be necessary. Implementation of vibration monitoring will be at the discretion of the Contract Administrator, to be determined following submission and review of the Contractor's planned means and methods of executing the Work.
- (c) The work executed under in this specification, if undertaken, shall include but not be limited to performing pre-construction surveys, supply and installation of vibration monitoring equipment, monitoring of vibration data, submission of vibration data and reports to the Contract Administrator, performing post-construction surveys, and abandonment of monitoring equipment.
- (d) While a current by-law on acceptable vibrations does not exist for the City of Winnipeg, the monitoring data should be compared to the California Department of Transportation and Construction Guidance Manual (September 2013) which presents probabilistic damages thresholds.

### E24.2 Submittals

- (a) Upon request by the Contract Administrator, submit a Vibration Monitoring Plan in accordance with E7. The Vibration Monitoring Plan shall include, at a minimum:
  - (i) A description or sketch showing the proposed location for monitoring devices;
  - (ii) Make and model of vibration monitors to be installed;
  - (iii) Testing company contracted to perform the installation and monitoring;
  - (iv) Means and methods of collecting, storing and distributing vibration data; and,
  - (v) Schedule for execution of the Work.
- (b) Submit Shop Drawings for proposed vibration monitoring equipment in accordance with E7 and meeting the requirements as specified herein.
- (c) Reports and Records:
  - (i) The Contractor shall submit all reports of monitoring data to the Contract Administrator on a daily basis.

- (ii) Within 72 hours following installation of the instruments, submit drawings showing the actual as-built installed location, the instrument identification number, the instrument type, and the installation date and time.
- (iii) Submit pre and post construction surveys in accordance with E24.4(a), including photographs, video (as needed), field notes, and sketches. Surveys should provide a record of foundation, interior walls, door and window frames, existing cracks or other pre-existing damage, and any other relevant features.
- (iv) The collected data shall be made available and be provided to the homeowners or business owners adjacent to the work upon request.

#### E24.3 Quality Control

- (a) Vibration monitoring shall be installed and performed by a suitable testing company with previous experience in performing related work.

#### E24.4 Construction

##### (a) Building Inspection

- (i) The Contractor or their designate shall complete a pre-construction photographic survey of the existing structures adjacent to the work.
  - ◆ The pre-construction survey should provide a record of foundation, interior walls, door and window frames, existing cracks or pre-existing damage, and any other relevant features.
  - ◆ Pre-construction surveys shall be conducted in the presence of the Contract Administrator prior to commencement of construction activities.
- (ii) Where the Contractor is entering properties to undertake the photographic survey, notices shall be provided to the businesses or homeowners in advance to arrange for interior inspections. Notices shall be reviewed and accepted by the Contract Administrator and the City prior to issuance.
  - ◆ Any individuals entering into a private residence or meeting with citizens as part of this work shall have submitted security clearances to the Contract Administrator in accordance with PART F - Security Clearance.
- (iii) Where homeowners of businesses will not permit access to structures for inspection, the Contractor shall duly document attempts to arrange access. Inspections, insofar as possible shall be made from public right-of-way, noting any visual defects observed.
- (iv) Following construction activities, the Contractor shall arrange for a post construction inspection of any business or residences where pre-construction inspections were undertaken. The post construction inspection shall be conducted in the presence of the Contract Administrator.

##### (b) Instrumentation

- (i) Monitoring instruments shall be installed on structures at nearest point to the proposed shaft locations.
- (ii) Vibration monitors shall meet or exceed the following requirements:
  - ◆ Capable of measuring 0 – 400 mm/sec, continuously.
  - ◆ Capable of continuously recording monitoring data. Download data periodically as required by storage requirements.
- (iii) Vibration monitoring shall be installed prior to commencement of construction activities identified as requiring vibration monitoring. Obtain baseline measurements for five (5) consecutive days prior to commencement of construction activities identified as requiring vibration monitoring.

E24.5 Remove monitoring instrumentation upon completion of work identified as requiring vibration monitoring.

E24.6 Measurement and Payment (Provisional Item)

- (a) Building inspections as specified herein will be measured on a Unit Price basis as listed in Form B: Prices. Payment will be made at the Contract Price for “Building Inspections”. Payment shall include but not be limited to the performance of pre-construction and post-construction surveys.
- (b) Vibration monitoring as specified herein will be measured on a unit price basis as listed in Form B: Prices. Payment will be made at the Contract Price for “Building Vibration Monitoring”. Payment shall include but not be limited to the supply, installation and protection of the instruments, performance of baseline measurements, ongoing monitoring, submission of data, and abandoning of the instruments.
- (c) Payment for vibration monitoring will be made on the following schedule:
  - (i) Twenty five percent (25%) of the unit price will be paid following the completion of the installation of the instrumentation and provision of baseline measurements.
  - (ii) The remaining seventy five percent (75%) will be paid upon completion of the monitoring program as specified herein.

## **PART F - SECURITY CLEARANCE**

### **F1. SECURITY CLEARANCE**

F1.1 Each individual proposed to perform the following portions of the Work:

- (a) any Work on private property;
- (b) any Work within City facilities other than:
  - (i) an underground structure such as a manhole;
  - (ii) in areas and at times normally open to the public;
- (c) communicating with residents and homeowners in person or by telephone;

F1.1.1 Each Individual shall be required to obtain a Police Information Check from the police service having jurisdiction at their place of residence. Or

- (a) Sterling BackCheck – for existing account holders, log into your account to send individual invitations to employees requiring security clearance. For those that do not have an account, click on the following link to open an account:  
<https://forms.sterlingbackcheck.com/partners/platform2-en.php?&partner=winnipegcity>; or
- (b) Commissionaires (Manitoba Division), forms to be completed can be found on the website at: <https://www.commissionaires.ca/en/manitoba/home>; or
- (c) FASTCHECK Criminal Record & Fingerprint Specialists, forms to be completed can be found on the website at: <https://myfastcheck.com>