



THE CITY OF WINNIPEG

TENDER

TENDER NO. 112-2020

**2020-2021 ROBLIN BOULEVARD PAVEMENT RENEWALS – WINDMILL WAY TO
DIEPPE ROAD**

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PART B - BIDDING PROCEDURES

B1. CONTRACT TITLE

B1.1 2020-2021 Roblin Boulevard Pavement Renewals – Windmill Way to Dieppe Road

B2. SUBMISSION DEADLINE

B2.1 The Submission Deadline is 12:00 noon Winnipeg time, April 20, 2020.

B2.2 The Contract Administrator or the Manager of Materials may extend the Submission Deadline by issuing an addendum at any time prior to the time and date specified in B2.1.

B3. ENQUIRIES

B3.1 All enquiries shall be directed to the Contract Administrator identified in D3.1.

B3.2 If the Bidder finds errors, discrepancies or omissions in the Tender, or is unsure of the meaning or intent of any provision therein, the Bidder shall notify the Contract Administrator of the error, discrepancy or omission, or request a clarification as to the meaning or intent of the provision at least five (5) Business Days prior to the Submission Deadline.

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

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

B3.5 The Bidder shall not be entitled to rely on any response or interpretation received pursuant to B3 unless that response or interpretation is provided by the Contract Administrator in writing.

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

B4. CONFIDENTIALITY

B4.1 Information provided to a Bidder by the City or acquired by a Bidder by way of further enquiries or through investigation is confidential. Such information shall not be used or disclosed in any way without the prior written authorization of the Contract Administrator. The use and disclosure of the confidential information shall not apply to information which:

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

B4.2 The Bidder shall not make any statement of fact or opinion regarding any aspect of the Tender to the media or any member of the public without the prior written authorization of the Contract Administrator.

B5. ADDENDA

B5.1 The Contract Administrator may, at any time prior to the Submission deadline, issue addenda correcting errors, discrepancies or omissions in the Tender, or clarifying the meaning or intent of any provision therein.

- B5.2 The Contract Administrator will issue each addendum at least two (2) Business Days prior to the Submission Deadline, or provide at least two (2) Business Days by extending the Submission Deadline.
- B5.3 Addenda will be available on the MERX website at www.merx.com.
- B5.4 The Bidder is responsible for ensuring that he/she has received all addenda and is advised to check the MERX website for addenda regularly and shortly before the Submission Deadline, as may be amended by addendum.
- B5.5 The Bidder shall acknowledge receipt of each addendum in Paragraph 10 of Form A: Bid/Proposal. Failure to acknowledge receipt of an addendum may render a Bid non-responsive.
- B5.6 Notwithstanding B3, enquiries related to an Addendum may be directed to the Contract Administrator indicated in D3.

B6. SUBSTITUTES

- B6.1 The Work is based on the Plant, Materials and methods specified in the Tender.
- B6.2 Substitutions shall not be allowed unless application has been made to and prior approval has been granted by the Contract Administrator in writing.
- B6.3 Requests for approval of a substitute will not be considered unless received in writing by the Contract Administrator at least five (5) Business Days prior to the Submission Deadline.
- B6.4 The Bidder shall ensure that any and all requests for approval of a substitute:
- (a) provide sufficient information and details to enable the Contract Administrator to determine the acceptability of the Plant, Material or method as either an approved equal or alternative;
 - (b) identify any and all changes required in the applicable Work, and all changes to any other Work, which would become necessary to accommodate the substitute;
 - (c) identify any anticipated cost or time savings that may be associated with the substitute;
 - (d) certify that, in the case of a request for approval as an approved equal, the substitute will fully perform the functions called for by the general design, be of equal or superior substance to that specified, is suited to the same use and capable of performing the same function as that specified and can be incorporated into the Work, strictly in accordance with the proposed work schedule and the dates specified in the Supplemental Conditions for Substantial Performance and Total Performance;
 - (e) certify that, in the case of a request for approval as an approved alternative, the substitute will adequately perform the functions called for by the general design, be similar in substance to that specified, is suited to the same use and capable of performing the same function as that specified and can be incorporated into the Work, strictly in accordance with the proposed work schedule and the dates specified in the Supplemental Conditions for Substantial Performance and Total Performance.
- B6.5 The Contract Administrator, after assessing the request for approval of a substitute, may in his/her sole discretion grant approval for the use of a substitute as an "approved equal" or as an "approved alternative", or may refuse to grant approval of the substitute.
- B6.6 The Contract Administrator will provide a response in writing, at least two (2) Business Days prior to the Submission Deadline, to the Bidder who requested approval of the substitute.
- B6.6.1 The Contract Administrator will issue an Addendum, disclosing the approved materials, equipment, methods and products to all potential Bidders. The Bidder requesting and obtaining the approval of a substitute shall be responsible for disseminating information regarding the approval to any person or persons he/she wishes to inform.

- B6.7 If the Contract Administrator approves a substitute as an “approved equal”, any Bidder may use the approved equal in place of the specified item.
- B6.8 If the Contract Administrator approves a substitute as an “approved alternative”, any Bidder bidding that approved alternative may base his/her Total Bid Price upon the specified item but may also indicate an alternative price based upon the approved alternative. Such alternatives will be evaluated in accordance with B17.
- B6.9 No later claim by the Contractor for an addition to the Total Bid Price because of any other changes in the Work necessitated by the use of an approved equal or an approved alternative will be considered.

B7. BID COMPONENTS

- B7.1 The Bid shall consist of the following components:
- (a) Form A: Bid;
 - (b) Form B: Prices;
 - (c) Form G1: Bid Bond and Agreement to Bond.
- B7.2 Further to B7.1, the Bidder should include the written correspondence from the Contract Administrator approving a substitute in accordance with B6.
- B7.3 All components of the Bid shall be fully completed or provided, and submitted by the Bidder no later than the Submission Deadline, with all required entries made clearly and completely.
- B7.4 The Bid shall be submitted electronically through MERX at www.merx.com.
- B7.4.1 Bids will **only** be accepted electronically through MERX.
- B7.5 Bidders are advised that inclusion of terms and conditions inconsistent with the Tender document, including the General Conditions, will be evaluated in accordance with B17.1(a).

B8. BID

- B8.1 The Bidder shall complete Form A: Bid/Proposal, making all required entries.
- B8.2 Paragraph 2 of Form A: Bid/Proposal shall be completed in accordance with the following requirements:
- (a) if the Bidder is a sole proprietor carrying on business in his/her own name, his/her name shall be inserted;
 - (b) if the Bidder is a partnership, the full name of the partnership shall be inserted;
 - (c) if the Bidder is a corporation, the full name of the corporation shall be inserted;
 - (d) if the Bidder is carrying on business under a name other than his/her own, the business name and the name of every partner or corporation who is the owner of such business name shall be inserted.
- B8.2.1 If a Bid is submitted jointly by two or more persons, each and all such persons shall identify themselves in accordance with B8.2.
- B8.3 In Paragraph 3 of Form A: Bid/Proposal, the Bidder shall identify a contact person who is authorized to represent the Bidder for purposes of the Bid.
- B8.4 Paragraph 13 of Form A: Bid/Proposal shall be signed in accordance with the following requirements:
- (a) if the Bidder is a sole proprietor carrying on business in his/her own name, it shall be signed by the Bidder;

- (b) if the Bidder is a partnership, it shall be signed by the partner or partners who have authority to sign for the partnership;
- (c) if the Bidder is a corporation, it shall be signed by its duly authorized officer or officers;
- (d) if the Bidder is carrying on business under a name other than his/her own, it shall be signed by the registered owner of the business name, or by the registered owner's authorized officials if the owner is a partnership or a corporation.

B8.4.1 The name and official capacity of all individuals signing Form A: Bid/Proposal should be entered below such signatures.

B8.5 If a Bid is submitted jointly by two or more persons, the word "Bidder" shall mean each and all such persons, and the undertakings, covenants and obligations of such joint Bidders in the Bid and the Contract, when awarded, shall be both joint and several.

B9. PRICES

B9.1 The Bidder shall state a price in Canadian funds for each item of the Work identified on Form B: Prices.

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

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

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

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

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

B10. DISCLOSURE

B10.1 Various Persons provided information or services with respect to this Work. In the City's opinion, this relationship or association does not create a conflict of interest because of this full disclosure. Where applicable, additional material available as a result of contact with these Persons is listed below.

B10.2 The Persons are:

- (a) N/A

B11. CONFLICT OF INTEREST AND GOOD FAITH

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

B11.2 Conflict of Interest means any situation or circumstance where a Bidder or employee of the Bidder proposed for the Work has:

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

that could or would be seen to:

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

B11.3 In connection with its Bid, each entity identified in B11.2 shall:

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

B11.4 Without limiting B11.3, the City may, in its sole discretion, waive any and all perceived, potential or actual Conflicts of Interest. The City's waiver may be based upon such terms and conditions as the City, in its sole discretion, requires to satisfy itself that the Conflict of Interest has been appropriately avoided or mitigated, including requiring the Bidder to put into place such policies, procedures, measures and other safeguards as may be required by and be acceptable to the City, in its sole discretion, to avoid or mitigate the impact of such Conflict of Interest.

B11.5 Without limiting B11.3, and in addition to all contractual or other rights or rights at law or in equity or legislation that may be available to the City, the City may, in its sole discretion:

- (a) disqualify a Bidder that fails to disclose a perceived, potential or actual Conflict of Interest of the Bidder or any of its employees proposed for the Work;
- (b) require the removal or replacement of any employees proposed for the Work that has a perceived, actual or potential Conflict of Interest that the City, in its sole discretion, determines cannot be avoided or mitigated;
- (c) disqualify a Bidder or employees proposed for the Work that fails to comply with any requirements prescribed by the City pursuant to B11.4 to avoid or mitigate a Conflict of Interest; and
- (d) disqualify a Bidder if the Bidder, or one of its employees proposed for the Work, has a perceived, potential or actual Conflict of Interest that, in the City's sole discretion, cannot be avoided or mitigated, or otherwise resolved.

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

B12. **QUALIFICATION**

B12.1 The Bidder shall:

- (a) undertake to be in good standing under The Corporations Act (Manitoba), or properly registered under The Business Names Registration Act (Manitoba), or otherwise properly registered, licensed or permitted by law to carry on business in Manitoba; and
- (b) be financially capable of carrying out the terms of the Contract; and

- (c) have all the necessary experience, capital, organization, and equipment to perform the Work in strict accordance with the terms and provisions of the Contract.
- B12.2 The Bidder and any proposed Subcontractor (for the portion of the Work proposed to be subcontracted to them) shall:
- (a) be responsible and not be suspended, debarred or in default of any obligations to the City. A list of suspended or debarred individuals and companies is available on the Information Connection page at The City of Winnipeg, Corporate Finance, Materials Management Division website at <https://www.winnipeg.ca/matmgt/Templates/files/debar.pdf>
- B12.3 The Bidder and/or any proposed Subcontractor (for the portion of the Work proposed to be subcontracted to them) shall:
- (a) have successfully carried out work similar in nature, scope and value to the Work; and
 - (b) be fully capable of performing the Work required to be in strict accordance with the terms and provisions of the Contract; and
 - (c) have a written workplace safety and health program if required pursuant to The Workplace Safety and Health Act (Manitoba);
- B12.4 Further to B12.3(c), the Bidder shall, within five (5) Business Days of a request by the Contract Administrator, provide proof satisfactory to the Contract Administrator that the Bidder/Subcontractor has a workplace safety and health program meeting the requirements of The Workplace Safety and Health Act (Manitoba), by providing:
- (a) Written confirmation of a safety and health certification meeting SAFE Work Manitoba's SAFE Work Certified Standard (e.g., COR™ and SECOR™) in the form of:
 - (i) a copy of their valid Manitoba COR certificate and Letter of Good Standing (or Manitoba equivalency) as issued under the Certificate of Recognition (COR) Program administered by the Construction Safety Association of Manitoba or by the Manitoba Heavy Construction Association's WORKSAFELY™ COR™ Program; or
 - (ii) a copy of their valid Manitoba SECOR™ certificate and Letter of Good Standing (or Manitoba equivalency) as issued under the Small Employer Certificate of Recognition Program (SECOR™) administered by the Construction Safety Association of Manitoba or by the Manitoba Heavy Construction Association's WORKSAFELY™ COR™ Program; or
 - (b) a report or letter to that effect from an independent reviewer acceptable to the City. (A list of acceptable reviewers and the review template are available on the Information Connection page at The City of Winnipeg, Corporate Finance, Materials Management Division website at <http://www.winnipeg.ca/matmgt/>).
- B12.5 The Bidder shall submit, within three (3) Business Days of a request by the Contract Administrator, proof satisfactory to the Contract Administrator of the qualifications of the Bidder and of any proposed Subcontractor.
- B12.6 The Bidder shall provide, on the request of the Contract Administrator, full access to any of the Bidder's equipment and facilities to confirm, to the Contract Administrator's satisfaction, that the Bidder's equipment and facilities are adequate to perform the Work.
- B13. BID SECURITY**
- B13.1 A sample Bid Bond and Agreement to Bond are available on The City of Winnipeg, Corporate Finance, Materials Management Division website at <https://www.winnipeg.ca/MatMgt/templates/files/eBidsecurity.pdf>.
- B13.2 The Bidder shall provide digital bid security in the form of a 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 the form included in the Bid Submission (Form G1: Bid Bond and Agreement to Bond).

- B13.3 Bid security shall be submitted in an electronic or digital format meeting the following criteria:
- (a) 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; all digital seals; with the surety company, or an approved verification service provider of the surety company.
 - (b) 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.
 - (c) 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.
 - (d) The results of the verification must provide a clear, immediate and printable indication of pass or fail regarding B13.3(a).
- B13.4 Bonds failing the verification process will not be considered to be valid and the bid shall be determined to be non-responsive in accordance with B17.1(a).
- B13.5 Bonds passing the verification process will be treated as original and authentic.
- B13.5.1 If the Bidder submits alternative bids, the bid security shall be in the amount of the specified percentage of the highest Total Bid Price submitted.
- B13.6 The bid security of the successful Bidder and the next two lowest evaluated responsive and responsible Bidders will be released by the City when a Contract for the Work has been duly formed with the successful Bidder and the contract securities are furnished as provided herein. The bid securities of all other Bidders will be released when a Contract is awarded.
- B13.7 The bid securities of all Bidders will be released by the City as soon as practicable following notification by the Contract Administrator to the Bidders that no award of Contract will be made pursuant to the Tender.

B14. OPENING OF BIDS AND RELEASE OF INFORMATION

- B14.1 Bids will not be opened publicly.
- B14.2 Following the submission deadline, the names of the Bidders and their Total Bid Prices (unevaluated, and pending review and verification of conformance with requirements) will be available on the MERX website at www.merx.com.
- B14.3 After award of Contract, the name(s) of the successful Bidder(s) and their Contract amount(s) will be available on the MERX website at www.merx.com.
- B14.4 The Bidder is advised that any information contained in any Bid may be released if required by The Freedom of Information and Protection of Privacy Act (Manitoba), by other authorities having jurisdiction, or by law or by City policy or procedures (which may include access by members of City Council).
- B14.4.1 To the extent permitted, the City shall treat as confidential information, those aspects of a Bid Submission identified by the Bidder as such in accordance with and by reference to Part 2, Section 17 or Section 18 or Section 26 of The Freedom of Information and Protection of Privacy Act (Manitoba), as amended.

B15. IRREVOCABLE BID

- B15.1 The Bid(s) submitted by the Bidder shall be irrevocable for the time period specified in Paragraph 11 of Form A: Bid/Proposal.
- B15.2 The acceptance by the City of any Bid shall not release the Bids of the next two lowest evaluated responsive Bidders and these Bidders shall be bound by their Bids on such Work until a Contract for the Work has been duly formed and the contract securities have been

furnished as herein provided, but any Bid shall be deemed to have lapsed unless accepted within the time period specified in Paragraph 11 of Form A: Bid/Proposal.

B16. WITHDRAWAL OF BIDS

B16.1 A Bidder may withdraw his/her Bid without penalty prior to the Submission Deadline.

B17. EVALUATION OF BIDS

B17.1 Award of the Contract shall be based on the following bid evaluation criteria:

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

B17.2 Further to B17.1(a), the Award Authority may reject a Bid as being non-responsive if the Bid is incomplete, obscure or conditional, or contains additions, deletions, alterations or other irregularities. The Award Authority may reject all or any part of any Bid, or waive technical requirements or minor informalities or irregularities, if the interests of the City so require.

B17.3 Further to B17.1(b), the Award Authority shall reject any Bid submitted by a Bidder who does not demonstrate, in his/her Bid or in other information required to be submitted, that he/she is qualified.

B17.4 Further to B17.1(c), the Total Bid Price shall be the sum of the quantities multiplied by the unit prices for each item shown on Form B: Prices.

B17.4.1 Bidders are advised that the calculation indicated in B17.4 will prevail over the Total Bid Price entered in MERX.

B18. AWARD OF CONTRACT

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

B18.2 The City will have no obligation to award a Contract to a Bidder, even though one or all of the Bidders are determined to be qualified, and the Bids are determined to be responsive.

B18.2.1 Without limiting the generality of B18.2, the City will have no obligation to award a Contract where:

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

B18.3 Where an award of Contract is made by the City, the award shall be made to the qualified Bidder submitting the lowest evaluated responsive Bid, in accordance with B17.

B18.3.1 Following the award of contract, a Bidder will be provided with information related to the evaluation of his/her Bid upon written request to the Contract Administrator.

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, Materials Management Division website at http://www.winnipeg.ca/matmgt/gen_cond.stm
- C0.2 A reference in the Tender to a section, clause or subclause with the prefix “C” designates a section, clause or subclause in the *General Conditions for Construction*.

PART D - SUPPLEMENTAL CONDITIONS

GENERAL

D1. GENERAL CONDITIONS

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

D2. SCOPE OF WORK

D2.1 The Work to be done under the Contract shall consist of:

- (a) Pavement Rehabilitation
 - (i) Roblin Boulevard (2020) from Windmill Way to Community Row
 - (ii) Roblin Boulevard (2021) from Community Row to Dieppe Road

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

- (a) Pavement Rehabilitation
 - (i) Crossover construction
 - (ii) Underground repairs
 - (iii) Planing of asphalt overlay
 - (iv) Installation of traffic signals underground conduit, bases and pits
 - (v) Full depth concrete repairs of existing slabs and joints (including adjustment of drainage inlets and manholes)
 - (vi) Renewal of existing curb utilizing slip-form paving equipment (average reveal – 125mm)
 - (vii) Construct monolithic splash strip
 - (viii) Complete curb renewal at intersections and approaches
 - (ix) Renewal of existing sidewalk
 - (x) Construct full width sidewalk with block-outs for pavers
 - (xi) Construction 100mm median slab and bullnoses
 - (xii) Placement of asphalt overlay (average thickness – 95mm)
 - (xiii) Installation of detectable warning tiles
 - (xiv) Boulevard restoration
 - (xv) Sod installation

D3. CONTRACT ADMINISTRATOR

D3.1 The Contract Administrator is Stantec Consulting Ltd., represented by:

Scott Suderman, P.Eng.
Transportation Engineer
Telephone No. 204-782-7189
Email Address scott.suderman@stantec.com

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

D4. CONTRACTOR'S SUPERVISOR

- D4.1 At the pre-construction meeting, the Contractor shall identify his/her designated supervisor and any additional personnel representing the Contractor and their respective roles and responsibilities for the Work.
- D4.2 At least two (2) Business Days prior to the commencement of any Work on the site, the Contractor shall provide the Contract Administrator with a phone number where the supervisor identified in D4.1 or an alternate can be contacted twenty-four (24) hours a day to respond to an emergency.

D5. NOTICES

- D5.1 Except as provided for in C22.4, all notices, requests, nominations, proposals, consents, approvals, statements, authorizations, documents or other communications to the Contractor shall be sent to the address or facsimile number identified by the Contractor in Paragraph 2 of Form A: Bid/Proposal.
- D5.2 All notices, requests, nominations, proposals, consents, approvals, statements, authorizations, documents or other communications to the City, except as expressly otherwise required in D5.3 or elsewhere in the Contract, shall be sent to the attention of the Contract Administrator identified in D3.
- D5.3 All notices, requests, nominations, proposals, consents, approvals, statements, authorizations, documents or other communications required to be submitted or returned to the City Solicitor shall be sent to the following facsimile number:
The City of Winnipeg
Legal Services Department
Attn: Director of Legal Services
Facsimile No.: 204-947-9155

D6. FURNISHING OF DOCUMENTS

- D6.1 Upon award of the Contract, the Contractor will be provided with five (5) complete sets of the Tender. If the Contractor requires additional sets of the Tender, they will be supplied to him/her at cost.

SUBMISSIONS

D7. AUTHORITY TO CARRY ON BUSINESS

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

D8. SAFE WORK PLAN

- D8.1 The Contractor shall provide the Contract Administrator with a Safe Work Plan at least five (5) Business Days prior to the commencement of any Work on the Site but in no event later than the date specified in C4.1 for the return of the executed Contract Documents, if applicable.
- D8.2 The Safe Work Plan shall be prepared and submitted in the format shown in the City's template which is available on the Information Connection page at The City of Winnipeg, Corporate Finance, Materials Management Division website at <http://www.winnipeg.ca/matmgt/safety/default.stm>

D8.3 Notwithstanding B12.4 at any time during the term of the Contract, the City may, at its 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.

D9. **INSURANCE**

D9.1 The Contractor shall provide and maintain the following insurance coverage to remain in place at all times during the performance of the Work and throughout the warranty period unless otherwise stated below:

- (a) Wrap-up liability insurance in an amount of no less than five million dollars (\$5,000,000) inclusive per occurrence and five millions dollars (\$5,000,000) general aggregate, covering bodily injury, property damage, personal injury, unlicensed motor vehicle liability, sudden and accidental pollution with 120 hour reporting, hook liability, if required, and products and completed operations consistent with industry standard insurance policy wordings. Wrap up liability insurance to also include evidence of contractual liability and cross liability clauses.
 - (i) The Contractor will carry such insurance to cover the City, Contractor, Subcontractors, consultants and sub-consultants as insured's. Provision of this insurance is not intended in any way to relieve the Contractor from his obligations under the terms of the Contract. Specifically, losses relating to deductibles for insurance, as well as losses in excess of limits of coverage and any risk of loss that is not covered under the terms of the insurance remains with the Contractor.
 - (ii) Manitoba and its Ministers, officers, employees and agents, BellMTS, Manitoba Hydro, Shaw, TeraSpan and Telus shall be shown as additional insured, as required by contract(s).
 - (iii) Wrap-up liability insurance shall be maintained from the date of the commencement of the Work until the date of Total Performance of the work and shall include an additional 24 months completed operations coverage which will take affect after Total Performance.
- (b) an all risks installation floater carrying adequate limits to cover all machinery, equipment, supplies and/or materials intended to enter into and form part of any installation.
- (c) 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.
- (d) Property insurance for all equipment, tools, field office and portable toilets used by the Contractor directly or indirectly in the performance of the Work on the project that may be owned, rented, leased or borrowed.

D9.2 Deductibles shall be borne by the Contractor.

D9.3 All Subcontractors performing Work on the Project shall be registered with Workers Compensation Board of Manitoba and shall provide and maintain workers compensation coverage throughout the term of the Contract, and the Contractor shall provide the Contract Administrator with evidence thereof upon request.

D9.4 All policies shall be taken out with insurers duly licensed to carry on business in the Province of Manitoba.

D9.5 The Contractor shall provide the City Solicitor with a certificate(s) of insurance for the City and Manitoba, in a form satisfactory to the City Solicitor and Manitoba, 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.

D9.6 The Contractor shall not cancel, materially alter, or cause each policy to lapse without providing at least thirty (30) Calendar Days prior written notice to the Contract Administrator.

D10. CONTRACT SECURITY

- D10.1 The Contractor shall provide and maintain the performance bond and the labour and material payment bond until the expiration of the warranty period in the form of:
- (a) a performance bond of a company registered to conduct the business of a surety in Manitoba, in the form attached to these Supplemental Conditions (Form H1: Performance Bond), in the amount of fifty percent (50%) of the Contract Price; and
 - (b) a labour and material payment bond of a company registered to conduct the business of a surety in Manitoba, in the form attached to these Supplemental Conditions (Form H2: Labour and Material Payment Bond), in an amount equal to fifty percent (50%) of the Contract Price.
- D10.2 The Contractor shall provide the City Solicitor 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.
- D10.3 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 D10.1(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.

D11. SUBCONTRACTOR LIST

- D11.1 The Contractor shall provide the Contract Administrator with a complete list of the Subcontractors whom the Contractor proposes to engage (Form J: Subcontractor List) at or prior to a pre-construction meeting, or at least ten (10) Business Days prior to the commencement of any Work on the Site but in no event later than the date specified in the C4.1 for the return of the executed Contract Documents, if applicable.

D12. DETAILED WORK SCHEDULE

- D12.1 The Contractor shall provide the Contract Administrator with a detailed work schedule at least ten (10) Business Days prior to the commencement of any Work on the Site but in no event later than the date specified in the General Conditions for the return of the executed Contract Documents, as applicable.
- D12.2 The detailed work schedule shall consist of the following:
- (a) a Gantt chart for the Work; and
 - (b) a daily manpower schedule for the Work
all acceptable to the Contract Administrator.
- D12.3 Further to D12.2(a), the Gantt chart shall show the time on a weekly basis, required to carry out the Work of each trade, or specification division. The time shall be on the horizontal axis, and the type of trade shall be on the vertical axis.
- D12.4 Further to D12.2(b), the daily manpower schedule shall list the daily number of individuals on the Site for each trade.

SCHEDULE OF WORK

D13. COMMENCEMENT

- D13.1 The Contractor shall not commence any Work until he/she is in receipt of an award letter from the Award Authority authorizing the commencement of the Work.
- D13.2 The Contractor shall not commence any Work on the Site until:
- (a) the Contract Administrator has confirmed receipt and approval of:
 - (i) evidence of authority to carry on business specified in D7;
 - (ii) evidence of the workers compensation coverage specified in C6.15;
 - (iii) the twenty-four (24) hour emergency response phone number specified in D4.2.
 - (iv) the Safe Work Plan specified in D8;
 - (v) evidence of the insurance specified in D9;
 - (vi) the contract security specified in D10;
 - (vii) the subcontractor list specified in D11; and
 - (viii) the detailed work schedule specified in D12.
 - (b) the Contractor has attended a pre-construction meeting with the Contract Administrator, or the Contract Administrator has waived the requirement for a pre-construction meeting.
- D13.3 The Contractor shall not commence the Work on the Site before June 22, 2020 for Phase I.
- D13.4 The Contractor shall not commence the Work on the Site before May 24, 2021 for Phase II, unless written permission is provided by the Contract Administrator.
- D13.5 The City intends to award this Contract by May 19, 2020.
- D13.5.1 If the actual date of award is later than the intended date, the dates specified for Critical Stages, Substantial Performance, and Total Performance will be adjusted by the difference between the aforementioned intended and actual dates.

D14. WORKING DAYS

- D14.1 Further to C1.1(tt);
- D14.1.1 The Contract Administrator will determine daily if a Working Day has elapsed and will record his/her assessment. On a weekly basis the Contract Administrator will provide the Contractor with a record of the Working Days assessed for the preceding week. The Contractor shall sign each report signifying that he/she agrees with the Contract Administrator's determination of the Working Days assessed for the report period.
- D14.1.2 Work done to restore the Site to a condition suitable for Work, shall not be considered "work" as defined in the definition of a Working Day.
- D14.1.3 When the Work includes two or more major types of Work that can be performed under different atmospheric conditions, the Contract Administrator shall consider all major types of Work in determining whether the Contractor was able to work in assessing Working Days.

D15. RESTRICTED WORK HOURS

- D15.1 Further to clause 3.10 of CW 1130, the Contractor shall require written permission forty-eight (48) hours in advance from the Contract Administrator for any work to be performed between 2000 hours and 0700 hours, or on Saturdays, Sundays, Statutory Holidays and or Civic Holidays.

D16. WORK BY OTHERS

D16.1 Work by others on or near the Site will include but not necessarily be limited to:

- (a) City of Winnipeg Traffic Services – Install traffic control for median crossovers and regulatory signage, provide sign clamps, replace any permanent signage, and paint lines;
- (b) City of Winnipeg Traffic Signals – will be responsible for all cabling and erection of above ground plant. The Contractor is responsible for coordinating removal of above ground plant and cabling to facilitate the installation of the underground plant. The Contractor must coordinate with Traffic Signals such that the signal operations at the intersection are maintained except where permitted by CA and Traffic Signals Branch. This may result in the work being completed in multiple stages. Traffic Signals will be responsible for the installation of temporary traffic control devices at Barker, Berkley, Scotswood, and Dieppe for use during the crossover staging, including bagging/unbagging of existing signal heads;
- (c) City of Winnipeg Parks and Recreation – Parks and Recreation will perform tree trimming and pruning along the site from private trees that are overhanging and encroaching within the right-of-way. This will better increase pedestrian accessibility and shall be coordinated with the Contractor regarding timing of such work;
- (d) City of Winnipeg Transit – Transit will remove existing shelters, and furniture for reuse and provide signage for temporary Transit stops. The Contractor is expected to coordinate with Transit for the location of temporary stop locations and provide a safe and delineated area;
- (e) Benchmark Advertising – The Contractor is responsible to relocate benches & garbage bins during construction. These bus stop benches, and garbage bins are maintained by Benchmark Advertising. The Contractor is expected to coordinate with Paul Sawatzky paul@benchmarkadvertising.ca 204-784-1391 for final placement of the benches.
- (f) Bell MTS –The Contractor is expected to coordinate with Bell MTS for the supply of riser rings for the communication manholes for manhole adjustments within the project limits; and;
- (g) Manitoba Hydro Gas – has work required at Lot 5031 for a flange fitting and insulation. Timing of this work should be coordinated with Larry Tole ltole@hydro.mb.ca 204-360-5220.

D16.2 Further to D.16.1 the Contractor shall cooperate and coordinate all activities with all parties performing required Work by Others. The Contractor must accommodate the necessary area on site required for the Work by Others.

D17. CO-OPERATION WITH OTHERS

D17.1 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 limits, approach roadways, adjacent roadways or right-of-way. The activities of these agencies may coincide with the Contractor's execution of the Work, and it will be the Contractor's responsibility to cooperate with the other personnel working in the area.

D18. SEQUENCE OF WORK

D18.1 Further to C6.1, the sequence of work shall be as follows:

D18.1.1 The Work shall be divided into two Phases. Each Phase shall be subdivided into Stages. Stages are further subdivided into major items of work.

D18.1.2 **Phase I** – 2020 Construction Works includes Roblin Blvd from Windmill Way to Community Row

(a) **Stage I** – Televising

- (i) Televising locations previously inaccessible based on the underground drawings and at the direction of the Contract Administrator to confirm underground scope of work

- (b) **Stage II – Crossover construction (Windmill Way and Community Row)**
 - (i) Removal of curb;
 - (ii) Excavation for crossover structure;
 - (iii) Sub-base and base construction;
 - (iv) Placing of crossover asphalt; and
 - (v) Underground repairs eastbound and westbound as required or complete in subsequent stages.
- (c) **Stage III – Westbound lanes**
 - (i) Planing of asphalt;
 - (ii) Underground signal work as required;
 - (iii) Concrete pavement slab and joint work and adjustments to pavement structures and appurtenances in the gutter lane;
 - (iv) Curb renewals, concrete boulevard works and sidewalk reconstruction in the gutter lane and boulevard;
 - (v) Concrete pavement slab and joint work and adjustments to pavement structures and appurtenances in the median and left turn lanes;
 - (vi) Curb renewals in the median lane and median boulevard;
 - (vii) Joint and crack maintenance;
 - (viii) Placing topsoil and finish grading;
 - (ix) Laying of sod;
 - (x) Placing of scratch course of asphalt for the westbound lanes;
 - (xi) Placing pavement repair fabric; and
 - (xii) Placing of final course of asphalt for the westbound lanes.
- (d) **Stage IV – Eastbound lanes**
 - (i) Planing of asphalt;
 - (ii) Underground signal work as required;
 - (iii) Concrete pavement slab and joint work and adjustments to pavement structures and appurtenances in the gutter lane;
 - (iv) Curb renewals, concrete boulevard works and sidewalk reconstruction in the gutter lane and boulevard;
 - (v) Concrete pavement slab and joint work and adjustments to pavement structures and appurtenances in the median and left turn lanes;
 - (vi) Curb renewals, concrete boulevard works and sidewalk reconstruction in the median lane and median boulevard;
 - (vii) Joint and crack maintenance;
 - (viii) Placing topsoil and finish grading;
 - (ix) Laying of sod;
 - (x) Placing of scratch course of asphalt for the eastbound lanes;
 - (xi) Placing pavement repair fabric; and
 - (xii) Placing of final course of asphalt for the eastbound lanes.
- (e) Placing the topsoil and finished grading of all boulevard and median areas shall be completed prior to commencing construction of the asphaltic concrete overlay, including the scratch course.
- (f) **Stage V – Clean up and winterization**
 - (i) Remove asphalt and base for the crossover at Windmill Way;
 - (ii) Curb renewals for the crossover at Windmill Way;
 - (iii) Boulevard repairs for the crossover at Windmill Way; and
 - (iv) Asphalt patching for the crossover at Windmill Way.

D18.1.3 Immediately following the completion of Stage V of Phase I, the Contractor shall clean up the Site and remove all plant, surplus material, waste and debris, other than that left by the City or other Contractors.

D18.1.4 **Phase II** – 2021 Construction Works includes Roblin Blvd from Community Row to Dieppe Road

(a) **Stage I** – Crossover construction (Dieppe Road)

- (i) Removal of curb;
- (ii) Excavation for crossover structure;
- (iii) Base construction;
- (iv) Placing of crossover asphalt; and
- (v) Underground repairs eastbound and westbound as required or complete in subsequent stages.

(b) **Stage II** – Westbound lanes

- (i) Planing of asphalt;
- (ii) Underground signal work as required;
- (iii) Concrete pavement slab and joint work and adjustments to pavement structures and appurtenances in the gutter lane;
- (iv) Curb renewals, concrete boulevard works and sidewalk reconstruction in the gutter lane and boulevard;
- (v) Concrete pavement slab and joint work and adjustments to pavement structures and appurtenances in the median and left turn lanes;
- (vi) Curb renewals, concrete boulevard works and sidewalk reconstruction in the median lane and median boulevard;
- (vii) Joint and crack maintenance;
- (viii) Placing topsoil and finish grading;
- (ix) Laying of sod;
- (x) Placing of scratch course of asphalt for the westbound lanes;
- (xi) Placing pavement repair fabric; and
- (xii) Placing of final course of asphalt for the westbound lanes.

(c) **Stage III** – Eastbound lanes

- (i) Planing of asphalt;
- (ii) Underground signal work as required;
- (iii) Concrete pavement slab and joint work and adjustments to pavement structures and appurtenances in the gutter lane;
- (iv) Curb renewals, concrete boulevard works and sidewalk reconstruction in the gutter lane and boulevard;
- (v) Concrete pavement slab and joint work and adjustments to pavement structures and appurtenances in the median and left turn lanes;
- (vi) Curb renewals, concrete boulevard works and sidewalk reconstruction in the median lane and median boulevard;
- (vii) Joint and crack maintenance;
- (viii) Placing topsoil and finish grading;
- (ix) Laying of sod;
- (x) Placing of scratch course of asphalt for the eastbound lanes;
- (xi) Placing pavement repair fabric; and
- (xii) Placing of final course of asphalt for the eastbound lanes.

(d) Placing the topsoil and finished grading of all boulevard and median areas shall be completed prior to commencing construction of the asphaltic concrete overlay, including the scratch course.

(e) **Stage IV – Crossover removal**

- (i) Remove asphalt and base for the crossovers at Community Row and Dieppe Road;
- (ii) Curb renewals at the crossovers at Community Row and Dieppe Road;;
- (iii) Boulevard repairs at the Community Row and Dieppe Road crossovers; and
- (iv) Asphalt patching at the Community Row and Dieppe Road crossovers.

D18.1.5 Immediately following the completion of Stage IV of Phase II, the Contractor shall clean up the Site and remove all plant, surplus material, waste and debris, other than that left by the City or other Contractors.

D19. **CRITICAL STAGES**

D19.1 The Contractor shall achieve critical stages of the Work in accordance with the following requirements:

- (a) Critical Stage 1 – Completion of Phase I within seventy-five (75) working days, by October 15, 2020.

D19.1.1 Phase I – Stage 1 – Televising will be excluded from the working days and can commence prior to the start of construction.

D19.2 When the Contractor considers the Work associated with Critical Stage 1 to be completed, the Contractor shall arrange, attend and assist in the inspection of the Work with the Contract Administrator for purposes of verifying Completion. Any defects or deficiencies in the Work noted during that inspection shall be remedied by the Contractor at the earliest possible instance and the Contract Administrator notified so that the Work can be re-inspected.

D19.3 The date on which the Critical Stage 1 Work has been accepted by the Contract Administrator as being completed to the requirements of the Contract is the date on which completion of Critical Stage 1 has been achieved.

D20. **SUBSTANTIAL PERFORMANCE**

D20.1 The Contractor shall achieve Substantial Performance within one hundred forty (140) consecutive Working Days of the commencement of the Work as specified in D13.

D20.2 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 re-inspected.

D20.3 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.

D21. **TOTAL PERFORMANCE**

D21.1 The Contractor shall achieve Total Performance within one hundred forty-five (145) consecutive Working Days of the commencement of the Work as specified in D13.

- (a) All work shall be achieved prior to the completion of the 2021 construction season, which is deemed as of October 15, 2021.

D21.2 When the Contractor or the Contract Administrator considers the Work to be totally performed, the Contractor shall arrange, attend and assist in the inspection of the Work with the Contract Administrator for purposes of verifying Total Performance. Any defects or deficiencies in the Work noted during that inspection shall be remedied by the Contractor at the earliest possible instance and the Contract Administrator notified so that the Work can be re-inspected.

D21.3 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.

D22. LIQUIDATED DAMAGES

D22.1 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) Critical Stage 1 – Four thousand dollars (\$4,000);
- (b) Substantial Performance – Four thousand dollars (\$4,000);
- (c) Total Performance – Two thousand dollars (\$2,000).

D22.2 The amounts specified for liquidated damages in D22.1 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.

D22.3 The City may reduce any payment to the Contractor by the amount of any liquidated damages assessed.

D23. COVID-19 SCHEDULE DELAYS

D23.1 The City acknowledges that the schedule for this Contract may be impacted by the COVID-19 pandemic. Commencement and progress of the Work shall be performed by the Contractor with due consideration to the health and safety of workers and the public and directives from health authorities and various levels of government, and in close consultation with the Contract Administrator.

D23.2 If the Contractor is delayed in the performance of the Work by reason of the COVID-19 pandemic, 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.

D23.3 A minimum of seven (7) Calendar Days prior to the commencement of Work, the Contractor shall declare whether COVID-19 will affect the start date. If the Contractor declares that COVID-19 will affect the start date, the Contractor shall provide sufficient evidence that the delay is directly related to COVID-19, including but not limited to evidence related to availability of staff, availability of Material or work by others.

D23.4 For any delay related to COVID-19 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 D23.3. Failure to provide this notice will result in no additional time delays being considered by the City.

D23.5 The Work schedule, including the durations identified in D19 to D21 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.

D23.6 Where Work not previously identified is being carried over solely as a result of delays related to COVID-19, 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 COVID-19, a partial consideration of the cost of temporary works will be considered by the Contract Administrator.

D23.7 Anytime or cost implications as a result of COVID-19 and in accordance with the above, as confirmed by the Contract Administrator, shall be documented in accordance with C7.

D24. SCHEDULED MAINTENANCE

D24.1 The Contractor shall perform the following scheduled maintenance in the manner and within the time periods required by the Specifications:

- (a) Sodding as specified in the latest version of the City of Winnipeg Standard Construction Specification CW 3510; and
- (b) Reflective crack maintenance as specified in the latest version of the City of Winnipeg Standard Construction Specification CW 3250.

D24.2 Determination of Substantial Performance and Total Performance shall be exclusive of scheduled maintenance identified herein. All scheduled maintenance shall be completed prior to the expiration of the warranty period. Where the scheduled maintenance cannot be completed during the warranty period, the warranty period shall be extended for such period of time as it takes the Contractor to complete the scheduled maintenance.

CONTROL OF WORK

D25. JOB MEETINGS

D25.1 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.

D25.2 The Contract Administrator reserves the right to cancel any job meeting or call additional job meetings whenever he/she deems it necessary.

D26. PRIME CONTRACTOR – THE WORKPLACE SAFETY AND HEALTH ACT (MANITOBA)

D26.1 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).

D27. THE WORKPLACE SAFETY AND HEALTH ACT (MANITOBA) – QUALIFICATIONS

D27.1 Further to B12.4, the Contractor/Subcontractor must, throughout the term of the Contract, have a Workplace Safety and Health Program meeting the requirements of The Workplace Safety and Health Act (Manitoba). At any time during the term of the Contract, the City may, at its sole discretion and acting reasonably, require updated proof of compliance, as set out in B12.4.

MEASUREMENT AND PAYMENT

D28. PAYMENT

D28.1 Further to C12, the City may at its option pay the Contractor by direct deposit to the Contractor's banking institution.

D28.2 Further to C12.10, if the Contractor enters into a subcontract for Phase I – 2020 construction work and a separate subcontractor for the Phase II – 2021 construction work, this may permit release by the City, of the value of the holdback with respect to the subcontractor for Phase 1 works in accordance with the Builders' Liens Act, such as Section 25.

WARRANTY

D29. WARRANTY

D29.1 Notwithstanding C13.2, the Contract Administrator may permit the warranty period for a portion or portions of the Work to begin prior to the date of Total Performance if:

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

D29.1.1 In such case the date specified by the Contract Administrator for the warranty period to begin shall be substituted for the date specified in C13.2 for the warranty period to begin.

THIRD PARTY AGREEMENTS

D30. FUNDING AND/OR CONTRIBUTION AGREEMENT OBLIGATIONS

D30.1 Funding for the Work of the Contract is being provided to the City of Winnipeg by the Government of Manitoba and/or the Government of Canada and accordingly, as required by the applicable funding agreements, the following terms and conditions shall apply.

D30.2 For the purposes of D30:

- (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.

D30.3 Indemnification By Contractor

D30.3.1 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.

D30.4 Records Retention and Audits

D30.4.1 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.

D30.4.2 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 D30.4.1 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.

D30.5 Other Obligations

D30.5.1 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.

D30.5.2 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.

D30.5.3 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.

D30.5.4 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.

FORM H1: PERFORMANCE BOND
(See D9)

KNOW ALL MEN BY THESE PRESENTS THAT

_____ ,
(hereinafter called the "Principal"), and

_____ ,
(hereinafter called the "Surety"), are held and firmly bound unto **THE CITY OF WINNIPEG** (hereinafter called the "Obligee"), in the sum of

_____ dollars (\$_____.)

of lawful money of Canada to be paid to the Obligee, or its successors or assigns, for the payment of which sum the Principal and the Surety bind themselves, their heirs, executors, administrators, successors and assigns, jointly and severally, firmly by these presents.

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

TENDER NO. 112-2020

2020-2021 Roblin Boulevard Pavement Renewals – Windmill Way to Dieppe Road
which is by reference made part hereof and is hereinafter referred to as the "Contract".

NOW THEREFORE the condition of the above obligation is such that if the Principal shall:

- (a) carry out and perform the Contract and every part thereof in the manner and within the times set forth in the Contract and in accordance with the terms and conditions specified in the Contract;
- (b) perform the Work in a good, proper, workmanlike manner;
- (c) make all the payments whether to the Obligee or to others as therein provided;
- (d) in every other respect comply with the conditions and perform the covenants contained in the Contract; and
- (e) indemnify and save harmless the Obligee against and from all loss, costs, damages, claims, and demands of every description as set forth in the Contract, and from all penalties, assessments, claims, actions for loss, damages or compensation whether arising under "The Workers Compensation Act", or any other Act or otherwise arising out of or in any way connected with the performance or non-performance of the Contract or any part thereof during the term of the Contract and the warranty period provided for therein;

THEN THIS OBLIGATION SHALL BE VOID, but otherwise shall remain in full force and effect. The Surety shall not, however, be liable for a greater sum than the sum specified above.

AND IT IS HEREBY DECLARED AND AGREED that the Surety shall be liable as Principal, and that nothing of any kind or matter whatsoever that will not discharge the Principal shall operate as a discharge or release of liability of the Surety, any law or usage relating to the liability of Sureties to the contrary notwithstanding.

IN WITNESS WHEREOF the Principal and Surety have signed and sealed this bond the

_____ day of _____, 20_____.

SIGNED AND SEALED
in the presence of:

(Witness as to Principal if no seal)

(Name of Principal)

Per: _____ (Seal)

Per: _____

(Name of Surety)

By: _____ (Seal)
(Attorney-in-Fact)

FORM H2: LABOUR AND MATERIAL PAYMENT BOND
(See D9)

KNOW ALL MEN BY THESE PRESENTS THAT

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

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

_____ dollars (\$_____)

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

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

TENDER NO. 112-2020

2020-2021 Roblin Boulevard Pavement Renewals – Windmill Way to Dieppe Road

which is by reference made part hereof and is hereinafter referred to as the "Contract".

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

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

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

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

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

_____ day of _____, 20____.

SIGNED AND SEALED
in the presence of:

(Witness as to Principal if no seal)

(Name of Principal)

Per: _____ (Seal)

Per: _____

(Name of Surety)

By: _____ (Seal)
(Attorney-in-Fact)

FORM J: SUBCONTRACTOR LIST
(See D11)

2020-2021 Roblin Boulevard Pavement Renewals – Windmill Way to Dieppe Road

<u>Portion of the Work</u>	<u>Name</u>	<u>Address</u>
SURFACE WORKS		
<u>Supply of Materials</u>		
Concrete:		
Asphalt:		
Base Course & Sub-Base:		
Topsoil & Sod:		
Paving Stones:		
<u>Installation/Placement</u>		
Concrete:		
Asphalt:		
Base:		
Landscaping:		
Signals Works - Conduits, anchor bolts, concrete for bases:		
UNDERGROUND WORKS		
<u>Supply of Materials</u>		
PVC Pipe:		
Corrugated Steel Pipe:		
Fittings:		
Precast Concrete Catch Basins, Catch Pits, and Manhole Risers:		
Frames/Covers:		
Hydrant Adjustments/ Extensions:		
<u>Installation/Placement</u>		
Catch basins/Catch pits and Connections:		
Sewer Repairs:		
Sewer Televising:		

PART E - SPECIFICATIONS

GENERAL

E1. APPLICABLE SPECIFICATIONS AND DRAWINGS

- E1.1 These Specifications shall apply to the Work.
- E1.2 *The City of Winnipeg Standard Construction Specifications* in its entirety, whether or not specifically listed on Form B: Prices, shall apply to the Work.
- E1.2.1 *The City of Winnipeg Standard Construction Specifications* is available on the Information Connection page at The City of Winnipeg, Corporate Finance, Materials Management Division website at <http://www.winnipeg.ca/matmgt/Spec/Default.stm>
- E1.2.2 The version in effect three (3) Business Days before the Submission Deadline shall apply.
- E1.2.3 Further to C2.4(d), Specifications included in the Tender shall govern over *The City of Winnipeg Standard Construction Specifications*.
- E1.3 Bidders are reminded that requests for approval of substitutes as an approved equal or an approved alternative shall be made in accordance with B6. In every instance where a brand name or design specification is used, the City will also consider approved equals and/or approved alternatives in accordance with B6.
- E1.4 The following are applicable to the Work:

<u>Drawing No.</u>	<u>Drawing Name/Title</u>	<u>Drawing (Original) Sheet Size</u>
P-3528-1	Cover Page, Drawing List and Site Location Map	A1
P-3528-2	Roblin Boulevard – Horizontal Geometry STA 1+730 to STA 2+770	A1
P-3528-3	Roblin Boulevard – Horizontal Geometry STA 2+770 to STA 3+800	A1
P-3528-4	Roblin Boulevard – Horizontal Geometry STA 3+800 to STA 4+310	A1
P-3528-5	Roblin Boulevard – Concrete Pavement, Curb and Sidewalk Repairs STA 1+730 to STA 2+770	A1
P-3528-6	Roblin Boulevard – Concrete Pavement, Curb and Sidewalk Repairs STA 2+770 to STA 3+790	A1
P-3528-7	Roblin Boulevard – Concrete Pavement, Curb and Sidewalk Repairs STA 3+790 to STA 4+311	A1
P-3528-8	Roblin Boulevard – Roadworks Windmill Way to STA 1+840	A1
P-3528-9	Roblin Boulevard – Roadworks STA 1+840 to STA 1+960	A1
P-3528-10	Roblin Boulevard – Roadworks STA 1+960 to STA 2+080	A1
P-3528-11	Roblin Boulevard – Roadworks STA 2+080 to STA 2+180	A1
P-3528-12	Roblin Boulevard – Roadworks STA 2+180 to STA 2+290	A1
P-3528-13	Roblin Boulevard – Roadworks STA 2+290 to STA 2+390	A1
P-3528-14	Roblin Boulevard – Roadworks STA 2+390 to STA 2+520	A1
P-3528-15	Roblin Boulevard – Roadworks STA 2+520 to STA 2+640	A1
P-3528-16	Roblin Boulevard – Roadworks STA 2+640 to STA 2+775 Westbound	A1
P-3528-17	Roblin Boulevard – Roadworks STA 2+640 to STA 2+775 Eastbound	A1
P-3528-18	Roblin Boulevard – Roadworks STA 2+775 to STA 2+910 Westbound	A1
P-3528-19	Roblin Boulevard – Roadworks STA 2+775 to STA 2+910 Eastbound	A1
P-3528-20	Roblin Boulevard – Roadworks STA 2+910 to STA 3+025	A1
P-3528-21	Roblin Boulevard – Roadworks STA 3+025 to STA 3+155	A1
P-3528-22	Roblin Boulevard – Roadworks STA 3+155 to STA 3+280	A1
P-3528-23	Roblin Boulevard – Roadworks STA 3+280 to STA 3+410	A1
P-3528-24	Roblin Boulevard – Roadworks STA 3+410 to STA 3+540	A1
P-3528-25	Roblin Boulevard – Roadworks STA 3+540 to STA 3+670	A1
P-3528-26	Roblin Boulevard – Roadworks STA 3+670 to STA 3+800	A1
P-3528-27	Roblin Boulevard – Roadworks STA 3+800 to STA 3+910	A1

<u>Drawing No.</u>	<u>Drawing Name/Title</u>	<u>Drawing (Original) Sheet Size</u>
P-3528-28	Roblin Boulevard – Roadworks STA 3+910 to STA 4+040	A1
P-3528-29	Roblin Boulevard – Roadworks STA 4+040 to STA 4+170	A1
P-3528-30	Roblin Boulevard – Roadworks STA 4+170 to STA 4+285	A1
P-3528-31	Roblin Boulevard – Roadworks STA 4+285 to Dieppe Road	A1
P-3528-32	Roblin Boulevard – Miscellaneous Details	A1
P-3528-33	Roblin Boulevard – Municipal Utilities Windmill Way to STA 1+920	A1
P-3528-34	Roblin Boulevard – Municipal Utilities STA 1+920 to STA 2+110	A1
P-3528-35	Roblin Boulevard – Municipal Utilities STA 2+110 to STA 2+290	A1
P-3528-36	Roblin Boulevard – Municipal Utilities STA 2+290 to STA 2+670	A1
P-3528-37	Roblin Boulevard – Municipal Utilities STA 2+670 to STA 3+050	A1
P-3528-38	Roblin Boulevard – Municipal Utilities STA 3+050 to STA 3+430	A1
P-3528-39	Roblin Boulevard – Municipal Utilities STA 3+430 to STA 3+810	A1
P-3528-40	Roblin Boulevard – Municipal Utilities STA 3+810 to STA 4+190	A1
P-3528-41	Roblin Boulevard – Municipal Utilities STA 4+190 to Dieppe Road	A1
P-3528-42	2020 / 2021 Construction Staging Overview	A1
P-3528-43	Roblin Boulevard – Construction Staging 2020 Stage 1 & 2	A1
P-3528-44	Roblin Boulevard – Construction Staging 2020 Stage 3	A1
P-3528-45	Roblin Boulevard – Construction Staging 2020 Stage 4	A1
P-3528-46	Roblin Boulevard – Construction Staging 2020 Stage 5	A1
P-3528-47	Roblin Boulevard – Construction Staging 2021 Stage 1	A1
P-3528-48	Roblin Boulevard – Construction Staging 2021 Stage 2	A1
P-3528-49	Roblin Boulevard – Construction Staging 2021 Stage 3	A1
P-3528-50	Roblin Boulevard – Construction Staging 2021 Stage 4	A1

E2. MOBILIZATION AND DEMOBILIZATION PAYMENT

DESCRIPTION

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

SCOPE OF WORK

- E2.4 Further to C12 of the General Conditions, where Mobilization and Demobilization is included as a bid item, it shall consist of the following, as applicable:
- (a) Mobilization shall include, but not be limited to:
 - (i) All activities and associated costs for transportation of the Contractor's personnel, equipment, and operating supplies to the site, and/or sites, and/or between sites;
 - (ii) Establishment of offices, buildings, other necessary general facilities and equipment parking/staging areas for the Contractor's operations at the site or sites;
 - (iii) Premiums paid for performance and payment bonds including coinsurance and reinsurance agreements as applicable;
 - (iv) General cleanup and housekeeping needed maintain a neat and orderly project site and/or sites;
 - (v) Other job related items.
 - (b) Demobilization shall include, but not be limited to:

- (i) All activities and costs for transportation of personnel, equipment, and supplies not used in the project from the site, and/or sites, and/or between sites;
- (ii) Disassembly, removal, and site cleanup and restoration of offices, buildings, and other facilities assembled on the site and/or sites;
- (iii) Repair of access roads, temporary haul roads, and equipment parking areas leaving the project site in the same or better condition than at the start of the project;
- (iv) General cleanup and housekeeping needed to restore a neat and orderly project site.

E2.5 Access to the site, equipment parking, and staging areas are limited to that shown on the drawings or as approved by the Contract Administrator.

MEASUREMENT AND PAYMENT

E2.6 The lump-sum price for the Mobilization and Demobilization bid item shall not exceed five percent (5.00%) of the total bid price for the Contract.

E2.6.1 Further to B9, B17, C12 and E2.6, should the lump sum price exceed 5% of the Total Bid Price the lump sum price will be reduced to 5% of the Total Bid Price, the Total Bid Price will be determined using the reduced lump sum price and payment will be based on the reduced lump sum price.

E2.7 Payment for Mobilization:

- (a) 60% of the lump-sum price will be paid to the contractor for Mobilization on the first Progress Estimate for the Contract.

E2.8 Payment for Demobilization:

- (a) The remaining 40% of the lump-sum price will be paid upon:
 - (i) Restoration of the site and/or sites to the satisfaction of the Contract Administrator;
 - (ii) Distribution of the Declaration of Total Performance.

E2.9 Mobilization and Demobilization will be paid only once (to a maximum of 100%), regardless of the number of times the Contractor mobilizes to the site and/or sites.

E3. GEOTECHNICAL REPORT

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

E4. OFFICE FACILITIES

E4.1 The Contractor shall supply office facilities meeting the following requirements:

- (a) The field office shall be for the exclusive use of the Contract Administrator.
- (b) The building shall be conveniently located near the site of the Work.
- (c) The building shall have a minimum floor area of 25 square metres, a height of 2.4m with two windows for cross ventilation and a door entrance with a suitable lock.
- (d) The building shall be suitable for all weather use. It shall be equipped with an electric heater and air conditioner so that the room temperature can be maintained between either 16-18°C or 24-25°C.
- (e) The building shall be adequately lighted with fluorescent fixtures and have a minimum of three wall outlets.
- (f) The building shall be furnished with one desk, one table 3m x 1.2m and a minimum of 12 chairs, a portable hand wash/ sanitization station and additional anti-bacterial wipes.

- (g) A portable toilet shall be located near the field office building. The toilet shall have a locking door and be for the exclusive use of the Contract Administrator and other personnel from the City.
- (h) The field office building and the portable toilet shall be cleaned on a weekly basis immediately prior to each site meeting. After each site meeting the surfaces shall be wiped down with the anti-bacterial wipes. The Contract Administrator may request additional cleaning when he/she deems it necessary.

E4.2 The Contractor shall be responsible for all installation and removal costs, all operating costs, and the general maintenance of the office facilities.

E4.3 The office facilities will be provided from the date of the commencement of the Work to the date of Total Performance.

E5. PROTECTION OF EXISTING TREES

E5.1 The Contractor shall take the following precautionary steps to prevent damage from construction activities to existing boulevard trees within the limits of the construction area:

- (a) The Contractor shall not stockpile materials and soil or park vehicles and equipment on boulevards within 2 metres of trees.
- (b) Trees identified to be at risk by the Contract Administrator are to be strapped with 25 x 100 x 2400mm wood planks, or suitably protected as approved by the Contract Administrator.
- (c) Excavation shall be performed in a manner that minimizes damage to the existing root systems. Where possible, excavation shall be carried out such that the edge of the excavation shall be a minimum of 1.5 times the diameter (measured in inches), with the outcome read in feet, from the closest edge of the trunk. Where roots must be cut to facilitate excavation, they shall be pruned neatly at the face of excavation.
- (d) Operation of equipment within the dripline of the trees shall be kept to the minimum required to perform the work required. Equipment shall not be parked, repaired, refuelled; construction materials shall not be stored, and earth materials shall not be stockpiled within the driplines of trees. The dripline of a tree shall be considered to be the ground surface directly beneath the tips of its outermost branches. The Contractor shall ensure that the operations do not cause flooding or sediment deposition on areas where trees are located.
- (e) Work on-site shall be carried out in such a manner so as to minimize damage to existing tree branches. Where damage to branches does occur, they shall be neatly pruned.

E5.2 All damage to existing trees caused by the Contractor's activities shall be repaired to the requirements and satisfaction of the Contract Administrator and the City Forester or his/her designate.

E5.3 No separate measurement or payment will be made for the protection of trees.

E5.4 Except as required in clause E5.1(c) and E5.1(e), Elm trees shall not be pruned at any time between April 1 and July 31.

E6. TRAFFIC CONTROL

E6.1 Further to clauses 3.6, 3.7 and 3.8 of CW 1130:

- (a) Where directed by the Contract Administrator, the Contractor shall construct and maintain temporary asphalt ramps to alleviate vertical pavement obstructions such as manholes and planing drop-offs to the satisfaction of the Contract Administrator. Payment shall be in accordance with CW3410.
- (b) In accordance with the Manual of Temporary Traffic Control on City Streets (MTTC), the Contractor ("Construction Agency" in the manual) shall be responsible for placing, maintaining and removing the appropriate temporary traffic control devices as specified by the MTTC or by the Traffic Management Branch of the City of Winnipeg Public Works

Department. The Contractor shall bear all costs associated with the placement of temporary traffic control devices by their own forces or subcontractor.

- (c) Further to E6.1b, the Contractor will be responsible for the supply of any and all traffic control devices that are used over the winter to close the temporary crossovers. City of Winnipeg Traffic Services will be responsible for maintaining the placement of any traffic control devices over the winter.

E6.2 Notwithstanding E6.1, in accordance with the MTTC, the Contract Administrator shall make arrangements with the **Traffic Services Branch of the City of Winnipeg** to place, maintain, and remove all **regulatory signs** and traffic control devices authorized and/or required by the Traffic Management Branch in the following situations:

- (a) Parking restrictions,
- (b) Stopping restrictions,
- (c) Turn restrictions,
- (d) Diamond lane removal,
- (e) Full or directional closures on a Regional Street,
- (f) Traffic routed across a median,
- (g) Full or directional closure of a non-regional street where there is a requirement for regulatory signs (turn restrictions, bus stop relocations, etc.) to implement the closure.
- (h) Approved Designated Construction Zones with a temporary posted speed limit reduction. Traffic Services will be responsible for placing all of the advance signs and 'Construction Ends' (TC-4) signs. The Contractor is still responsible for all other temporary traffic control including but not limited to barricades, barrels and tall cones.

E6.2.1 An exception to E6.2 is the 'KEEP RIGHT/KEEP LEFT' sign (RB-25 / RB-25L) which shall be supplied, installed, and maintained by the Contractor at their own expense.

E6.2.2 Further to E6.2, where the Contract Administrator has determined that the services of the Traffic Services Branch are required, the City shall bear the costs associated with the placement of temporary traffic control devices by the Traffic Services Branch of the City of Winnipeg in connection with the works undertaken by the Contractor.

E7. **TRAFFIC MANAGEMENT**

E7.1 Further to clause 3.7 of CW 1130:

- (a) Single lane closures on intersecting and/or adjoining Regional Streets shall only be permitted during non-peak periods when required for construction activities when approved by the Traffic Management Branch. Storage/parking of materials, equipment or vehicles is not permitted on Regional Streets at any time unless approved by the Contract Administrator, in consultation with the Traffic Management Branch.

E7.1.1 Maintain a minimum of one lane of traffic eastbound and one lane of traffic westbound for the duration of the project, including during paving and milling operations. When no work is being performed on site, non-essential lane closures will not be permitted.

- (a) Further to E7.1.1(a)1, in accordance with E6.2(f), the Traffic Services Branch will be responsible for routing traffic across the median.

E7.1.2 Intersecting local street, median opening and private approach access shall be maintained at all times unless joint/slab repairs or planing/paving operations require temporary closure. Temporary closures are to be staggered such that consecutive intersections are not closed at the same time. Traffic on intersecting regional/collector streets shall be maintained at all times unless planing/paving operations require temporary complete closures. Temporary complete closures shall be no longer than 10 minutes during asphalt planing/paving operations and shall be completed during off peak hours.

- (a) Further to E7.1.3, the Contractor will complete the Work in the construction area one lane at a time to allow local access to residents/businesses and refuse/ recycling trucks through the construction area where no median opening gives direct access.

- E7.1.3 Flag persons may be necessary to maintain the flow of traffic during certain work operations.
- E7.1.4 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.
- E7.1.5 Pedestrian access must be maintained on the south side while the westbound lanes are closed for construction, and on the north side while the eastbound lanes are closed for construction. One pedestrian crossing in the north-south direction must be maintained at each of the intersections that have a crossing on either side, at all times.
- E7.1.6 Ambulance/emergency vehicle access must be maintained at all times.

E8. REFUSE AND RECYCLING COLLECTION

- E8.1 While access to refuse and/or recycling collection vehicles is restricted in the work area, on collection day(s) the Contractor shall move all of the affected property owners refuse and/or recycling to the next lane, as required, in accordance with E8.3 to permit the collection vehicles to pass through the open lane in the work area to collect the materials. Immediately following refuse and/or recycling collection, the Contractor shall return the receptacles to their curbside position.
- E8.2 The Contractor will only be responsible to move those receptacles at residences that normally receive front street collection. This includes approximately 14 residences on the north side and 19 residences on the south side of Roblin Blvd in 2020, and approximately 15 residences on the north side and 6 residences on the south side of Roblin Blvd in 2021.

- E8.3 Collection Schedule:

Roblin Boulevard, from Windmill Way to Dieppe Road.

Collection Day(s): Tuesday

- E8.4 No measurement or payment will be made for the work associated with this Specification.

E9. PEDESTRIAN SAFETY

- E9.1 During the project, when underground repairs and work near the gas line require excavations, a temporary snow fence shall be installed around any excavations not backfilled overnight. The Contractor shall be responsible for maintaining the snow fence in a proper working condition. No measurement for payment shall be made for this work.

E10. WATER OBTAINED FROM THE CITY

- E10.1 Further to clause 3.7 of CW 1120, the Contractor shall pay for all costs, including sewer charges, associated with obtaining water from the City in accordance with the Waterworks and Sewer By-laws.

E11. SURFACE RESTORATIONS

- E11.1 Further to clause 3.3 of CW 1130, when the Critical Stage or Substantial Performance is not achieved in the year the Contract is commenced, the Contractor shall temporarily repair any Work commenced and not completed to the satisfaction of the Contract Administrator. The Contractor shall maintain the temporary repairs in a safe condition as determined by the

Contract Administrator until permanent repairs are completed. The Contractor shall bear all costs associated with temporary repairs and their maintenance.

E12. INFRASTRUCTURE SIGNS

E12.1 The Contractor shall obtain infrastructure signs from the Traffic Services Sign Shop at 421 Osborne Street. The Contractor shall mount each sign securely to a rigid backing material approved by the Contract Administrator. The Contractor shall fasten each sign to a suitable support and erect and maintain one sign at each street as directed by the Contract Administrator. When the Contract Administrator considers the Work on the street complete, the Contractor shall remove and dispose of the signs and supports. No measurement for payment will be made for performing all operations herein described and all other items incidental to the work described.

E13. SUPPLY AND INSTALLATION OF PAVEMENT REPAIR FABRIC

DESCRIPTION

E13.1 General

E13.1.1 This specification covers the supply and installation of pavement repair fabric.

E13.1.2 Referenced Standard Construction

(a) CW 3130 – Supply and Installation of Geotextile Fabrics.

MATERIALS

E13.2 Storage and Handling

E13.2.1 Store and handle material in accordance with Section 2 of CW 3130.

E13.3 Pavement Repair Fabric

E13.3.1 Pavement repair fabric will be Glas Grid Road Reinforcement Mesh - Style 8501, Glas Grid Road Reinforcement Mesh - Style 8502 or Titan TE-FGP10.

CONSTRUCTION METHODS

E13.4 General

E13.4.1 Install pavement repair fabric at random locations as directed by the Contract Administrator.

E13.4.2 The extent of the placement limits and quantities required will be determined by the Contract Administrator and provided 48 hours prior to the placement of asphalt.

E13.4.3 Proceed with installation upon completion and acceptance of the asphalt levelling course.

E13.4.4 Install fabric in accordance with the manufacturer's specifications and recommendations.

E13.4.5 Only construction equipment required to place the final asphalt surface course will be allowed to travel on the exposed fabric.

E13.4.6 Replace damaged or improperly placed fabric.

E13.4.7 Ensure temperature of the asphalt material does not exceed the melting point of the fabric.

MEASUREMENT AND PAYMENT

E13.5 Pavement Repair Fabric

E13.5.1 The supply and installation of the pavement repair fabric will be measured on an area basis and paid for at the Contract Unit Price per square metre for "Pavement Repair Fabric". The area to be paid for will be the total number of square metres of pavement repair fabric

supplied and installed in accordance with this specification, accepted and measured by the Contract Administrator.

E14. PORTLAND CEMENT CONCRETE SIDEWALK WITH BLOCK OUTS FOR INDICATOR SURFACES

DESCRIPTION

E14.1 This specification shall supplement CW 3325-R5 "Portland Cement Concrete Sidewalks".

CONSTRUCTION METHODS

E14.2 Add the following to section 9 :

E14.2.1 As shown on the drawings and as directed by the Contract Administrator, construct sidewalk with block outs and/or monolithic curb and sidewalk with block outs, to allow for the installation of indicator surfaces.

E14.2.2 Verify dimensions of paving stones (indicator surface) prior to construction of the block-outs. Gaps between paving stones and concrete pavement shall not exceed five (5) millimetres.

E14.2.3 Concrete curbs for monolithic curb and sidewalk with block outs shall be constructed in accordance with CW 3240.

MEASUREMENT AND PAYMENT

E14.3 Add the following to section 12 :

E14.3.1 Construction of concrete sidewalks with block outs for indicator surfaces will be measured on surface area basis. The surface area to be paid for shall be the number of square metres constructed in accordance with this specification and accepted by the Contract Administrator, as computed by measurements made by the Contract Administrator.

BASIS OF PAYMENT

E14.4 Add the following to section 13:

E14.4.1 Construction of concrete sidewalks with block outs for indicator surfaces will be paid for at the Contract Unit Price per square meter for the "Items of Work" listed here below, measured as specified herein, which price shall be payment in full for supplying all materials and for performing all operations herein described and all other items incidental to the work included in this specification.

E14.4.2 Items of Work:

(a) 100 mm Sidewalk with Block Outs

E14.4.3 Concrete thickness greater than the specified sidewalk thickness as a result of shaping the base material to accommodate the block outs is incidental to the listed Items of Work.

E15. PAVING STONES FOR INDICATOR SURFACES

DESCRIPTION

E15.1 This specification shall supplement CW 3330-R5 "Installation of Interlocking Paving Stones"

MATERIALS

E15.2 Add the following to section 5:

E15.2.1 Paving Stones for indicator surfaces shall be:

Barkman Concrete paving stones -

Charcoal Holland Paver (60mm X 210 mm X 210 mm)

<https://www.barkmanconcrete.com/>

Barkman Concrete paving stones –

Blue Holland Paver (60mm X 210 mm X 105 mm)

<https://www.barkmanconcrete.com/>

CONSTRUCTION METHODS

- E15.3 Add the following to section 9.2 “Preparation of Sub-grade, Sub-base and Sand-base” :
- E15.3.1 Preparation of Sand-Base for Paving Stones in Sidewalk Block Outs.
- E15.3.2 Place a 15mm layer of bedding sand in the blocked out sidewalk areas.
- E15.3.3 The bedding sand shall be spread and levelled so that the paving stones when installed are 5 mm higher than the finished grade.
- E15.3.4 No more sand shall be spread than can be covered in with paving stone on the same day.
- E15.3.5 The bedding sand shall not be compacted or disturbed prior to laying the paving stones.
- E15.4 Add the following to section 9.3 “Installation of Paving Stones” :
- E15.4.1 For indicator surface paving stones, commence installation of paving stones against the long edge of the block out to obtain the straightest possible course of installation.

MEASUREMENT AND PAYMENT

- E15.5 Add the following to section 12 :
- E15.6 Supply and Installation of Paving Stones for Indicator Surfaces
- E15.6.1 Paving stones for indicator surfaces will be measured on surface area basis. The surface area to be paid for shall be the number of square metres constructed in accordance with this specification and accepted by the Contract Administrator, as computed by measurements made by the contract Administrator.

BASIS OF PAYMENT

- E15.7 Add the following to section 13 :
- E15.7.1 The supply and installation of paving stones for indicator surfaces will be paid for at the Contract Unit Price per square meter for “Paving Stone Indicator Surface”, measured as specified herein, which price shall be payment in full for supplying all materials and for performing all operations herein described and all other items incidental to the work included in this specification.
- E15.7.2 Concrete thickness greater than the specified sidewalk thickness as a result of shaping the base material to accommodate the block outs is incidental to the listed Items of Work.

E16. **BONDING AGENT**

DESCRIPTION

- E16.1 Further to CW 3230 – R8, this specification covers the installation of bonding agent to be used for bonding tie bars and dowels into hardened concrete.

MATERIALS

- E16.2 Sika AnchorFix – 3001 – High-strength, high-load and low-voc, pure epoxy anchoring adhesive with extended working time, or equivalent product approved by the Contract Administrator.

CONSTRUCTION METHODS

- E16.3 Follow manufacturers instructions for the installation of bonding agent.

MEASUREMENT AND PAYMENT

- E16.4 No measurement for payment will be made for performing all supply and operations herein described and shall be considered incidental to drilled tie-bar and/or dowel installation.

E17. TREE REMOVAL

DESCRIPTION

- E17.1 General

- E17.1.1 Further to CW 3010 and the City of Winnipeg "Tree Removal Guidelines", this specification shall cover the removal of trees as specified on the Drawings and as directed by the Contract Administrator.

CONSTRUCTION METHODS

- E17.2 Remove trees in accordance with CW 3010.

MEASUREMENT AND PAYMENT

- E17.3 Tree removal will be measured on a unit basis and will be paid for at the Contract Unit Price for each "Tree Removal," which price shall be payment in full for performing all operations herein described and all other items incidental to the Work included in this Specification and accepted by the Contract Administrator.

E18. OPERATING CONSTRAINTS FOR WORK IN CLOSE PROXIMITY TO CRITICAL WATER INFRASTRUCTURE

DESCRIPTION

- E18.1 General

- E18.1.1 This Section details operating constraints for all work to be carried out in close proximity to the City feeder mains and other critical water infrastructure. Close proximity shall be deemed to be any construction activity within a 5 m horizontal offset from the centreline of the feeder main/water main, within 5 m of valve chambers and other appurtenances, and any other infrastructure identified below.

- E18.2 The following shall be considered critical pipelines and water infrastructure for this project:

- E18.2.1 Berkley Street Feeder Main:

- (a) 600 mm Concrete Feedermain.
- (b) The feeder main runs north-south within the Berkley Street right of way, as shown on the Drawings.

- E18.2.2 150mm Cast Iron Watermain:

- (a) All valves and other water infrastructure associated with the 150 CI WM shall be considered critical water infrastructure.
- (b) A 150 mm watermain runs north-south within the Municipal Road right of way to the Roblin Boulevard median, as shown on the Drawings.
- (c) A 150 mm watermain runs north-south within the Greenbrier Avenue right of way across Roblin Boulevard, as shown on the Drawings.
- (d) A 150 mm watermain runs north-south within the Dieppe Road right of way to the Roblin Boulevard median, as shown on the Drawings.

- E18.2.3 250mm Asbestos Concrete Watermain
- (a) All valves and other water infrastructure associated with the 250 AC WM shall be considered critical water infrastructure.
 - (b) The watermain runs east-west within the Roblin Boulevard right of way, along the median and eastbound lanes as shown on the Drawings.
- E18.3 General Considerations for Work in Close Proximity to Critical Water Infrastructure:
- E18.3.1 Feeder mains and large diameter water mains are a critical component of the City of Winnipeg Regional Water Supply System and work in close proximity to feeder mains shall be undertaken with an abundance of caution. Large diameter feeder main and water mains cannot typically be taken out of service for extended periods to facilitate construction and inadvertent damage caused to the pipe would likely have catastrophic consequences.
- E18.3.2 Work around critical water infrastructure shall be planned and implemented to minimize the time period that work is carried out in close proximity to the pipe and to ensure that the pipeline is not subjected to excessive construction related loads, including excessive vibrations and/or concentrated or asymmetrical lateral loads during backfill placement.
- E18.3.3 Large diameter pressure pipe generally has limited ability to withstand increased earth and live loading. Therefore, every precaution must be undertaken to ensure that applied loading during all phases of construction is within accepted loading parameters. PCCP typically fails in a non-ductile mode with the potential to cause extensive consequential damage to infrastructure if failure should occur. All large diameter feeder mains/water mains have the potential to cause extensive flooding.
- E18.3.4 Construction in close proximity to critical infrastructure shall not commence until both the equipment and construction method statements have been submitted, reviewed, and accepted by the Contract Administrator.
- E18.4 Submittals
- E18.4.1 Submit proposed construction equipment specifications to the Contract Administrator for review a minimum of ten (10) Business Days prior to construction. The equipment submission shall include:
- (a) equipment operating and payload weights;
 - (b) equipment dimensions, including wheel or track base, track length or axle spacing, track widths or wheel configurations; and,
 - (c) load distributions in the intended operating configuration.
- E18.4.2 Submit a construction method statement to the Contract Administrator a minimum of ten (10) business days prior to construction. The construction method statement shall contain the following minimum information:
- (a) proposed construction plan including excavation locations, haul routes, excavation equipment locations, and loading positions;
 - (b) excavation plans, including shoring designs, for excavations occurring in close proximity to feeder mains (within 5 m horizontal of the pipe's centerline) where the excavation to be extended below the top of the feeder mains embedment zone (150 mm above the pipe);
 - (c) trenchless construction methodology for feeder main crossings, including: installation methods, means of grade control, means of confirming clear separation between the new LDS and existing feeder main; and
 - (d) any other pertinent information required to accurately describe the construction activities in close proximity to the feeder main and permit the Contract Administrator to review the proposed construction plans.
- E18.4.3 Incomplete or partial submissions will not be reviewed and will be returned to the Contractor for re-submission.

E18.4.4 Allow five (5) Business Days for review by the Contract Administrator.

E18.5 Feeder Main Operational Limitations

E18.5.1 Feeder main shutdowns are scheduled based on a number of factors including water demand, weather, reservoir operation, routine maintenance and repair work within the regional distribution system, and other factors. If feeder main shutdowns are required, the City shall endeavour to make requested time periods available to the Contractor to schedule his/her work requiring removal of the feeder main from service, without limiting the City's control over the operation of the feeder main to complete other work, maintain adequate water supply and storage of water and maintain the integrity of the infrastructure. The City shall reserve the right to cancel and/or delay these schedule dates at any time, due to any circumstances that could adversely affect the feeder main or water supply including, but not limited to, high water demand, abnormal weather, failures of related water system components and/or security concerns.

E18.5.2 Scheduling Restrictions:

- (a) Temporary feeder main shutdowns are typically limited to off-peak demand seasons (September 15th to May 15th) and low demand hours including evenings or other low demand periods.

E18.5.3 The Contractor shall provide Notice to the Contract Administrator in writing, a minimum of fifteen (15) Business Days prior to requiring the shutdown. The City will endeavour to schedule the shutdown as requested.

CONSTRUCTION METHODS

E18.6 Pre-Work, Planning and General Execution

E18.6.1 No work shall commence in close proximity to feeder mains, chambers, and critical infrastructure until the equipment specifications and construction method statement have been submitted and accepted, and feeder main locations have been clearly delineated in the field. Work over feeder mains shall only be carried out with equipment that has been reviewed and quantified in terms of its loading implications on the pipe.

E18.6.2 Contact the City of Winnipeg Water and Waste Department, Construction Services Coordinator prior to construction.

E18.6.3 Locate feeder mains and water mains and confirm their position horizontally and vertically prior to undertaking work in close proximity to the identified feedermain. Note, exact locations to be identified in the field. Deviations from the elevations noted shall be reported to Contract Administrator for review prior to proceeding with work.

E18.6.4 Visually delineate all critical infrastructure identified herein on Site by use of paint, staking/flagging, construction fencing, snow fencing, or other suitable methods

E18.6.5 Only utilize construction practices and procedures that do not impart excessive vibratory loads on feeder mains and chambers or that would cause settlement of the subgrade below feeder mains and critical pipelines.

E18.6.6 Where the existing road structure must be removed, crossing of critical infrastructure shall be prohibited from the time the existing roadway structure is removed until the completion of granular base construction. At all times prior to completion of final paving; reduce equipment speeds to levels that minimize the effects of impact loading to the critical infrastructure.

E18.6.7 Only equipment and construction practices stipulated in the accepted construction method statement and the supplemental requirements noted herein may be utilized in close proximity to feeder mains, chambers, and other critical infrastructure identified herein.

E18.6.8 Construction operations should be staged in such a manner as to limit multiple construction loads at one time, (e.g., offset crossings sufficiently from each other, rollers should remain

a sufficient distance behind spreaders to limit loads. A reasonable offset distance is 3 m between loads).

E18.6.9 Granular material, construction material, soil, and/or other material shall not be stockpiled on the pipelines or within 5 m of any feeder main, valve chamber, or other critical infrastructure identified herein.

E18.6.10 The Contractor shall ensure that all crew members understand and observe the requirements of working near feeder mains, valve chambers, and critical infrastructure. Prior to commencement of on-Site work, the Contractor shall jointly conduct an orientation meeting with the Contract Administer, all superintendents, foreman, and heavy equipment operators to make all workers on the Site fully cognizant of the limitations of altered loading on, the ramifications of inadvertent damage to, and the constraints associated with work in close proximity to feeder mains and critical pipelines. New personnel introduced after commencement of the Project need to be formally orientated as outlined herein. It is recommended that restrictions associated with the crossing, consistent with the Contractor's submitted method statement be posted on Site and near the crossing.

E18.7 Demolition, Excavation, and Shoring

E18.7.1 Use of pneumatic concrete breakers within 3 m of a feeder main, valve chamber, or critical pipeline is prohibited. Pavement shall be full depth sawcut and carefully removed. Use of hand held jackhammers for pavement removal will be allowed.

E18.7.2 Offset excavation equipment a minimum of 3 m from the centerline of critical pipelines when undertaking excavations where there is less than 2.4 m of earth cover over the pipeline.

E18.7.3 Excavation:

- (a) Utilize only smooth edged excavation buckets, soft excavation, or hand excavation techniques where there is less than 1.5 m of earth cover over the pipeline.
- (b) Where there is less than 1.0 m of soil cover above the pipeline, provide full time supervision and complete the excavation utilizing hand excavation, soft excavation methods, or machine excavation. Where machine excavation is to be used the crown of the pipeline must be exposed (or suitable located) using hand or soft excavation methods a minimum of every 1.8 m.
- (c) Where there is less than 0.5 m of soil cover above the pipeline, provide full time supervision and complete the excavation utilizing hand excavation or soft excavation methods only.

E18.7.4 Equipment should not be allowed to operate while positioned directly over a feeder main or critical pipeline except were permitted herein, outlined in the reviewed and accepted construction method statement.

E18.7.5 Excavations within 3 m of the outside edge of a feeder main (hydrovac holes for confirming trenchless installations excluded) and which extend below obvert of the feeder main shall utilize shoring methods that precludes the movement of native in-situ soils (i.e. a tight shoring system).

E18.8 Underground Construction and Trenchless Pipe Installation

E18.8.1 Install pipes to the grades shown on the Drawings. A minimum clear separation distance (outside to outside of pipe wall) of 1.0m shall be maintained between crossing pipes and the feeder main and cast iron watermain.

E18.8.2 The Contractor shall locate feeder mains and confirm their position horizontally and vertically prior to commencing with any trenchless pipe installations to ensure proper clearances are maintained. Under NO circumstances should blind coring proceed across feeder mains.

E18.8.3 The Contractor shall visually confirm the location and alignment of the drill rods or jacking pipe (horizontally and vertically) prior to proceeding with the trenchless installation beneath

the feeder main. It is recommended that the new pipe alignment be confirmed within 2 m of the outside of the feeder main pipe but no closer than 0.5 m from the outside edge of the pipe.

- E18.8.4 No trenchless methods involving soil displacement (plugs) shall be permitted in the vicinity of the feedermain.
- E18.8.5 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.
- E18.8.6 Where excavation is required within the feeder main's embedment zone, the Contractor shall take steps to ensure the granular embedment material surrounding the feeder main remains stable during the work and the feeder main outside of the excavation is not undermined.

E18.9 Subgrade Construction

- E18.9.1 Subgrade and backfill compaction within 3 metres (horizontal) of a critical pipeline or valve chamber shall be limited to non-vibratory methods only. Small walk behind vibratory packers will be permitted.
- E18.9.2 Subgrade, sub-base and base course construction shall be kept in a rut free condition at all times. Construction equipment is prohibited from crossing pipelines if the grade is insufficient to support the equipment without rutting.
- E18.9.3 Subgrade conditions should be inspected by personnel with competent geotechnical experience (e.g. ability to adequately visually classify soils and competency of subgrade, subbase, and base course materials). In the event of encountering unsuitable subgrade materials above the feedermain, proposed design revisions shall be submitted to this office for review to obtain approval from the Water and Waste Department relative to any change in conditions.
- E18.9.4 Fill material shall not be dumped directly on pipelines but shall be stockpiled outside the limits noted in these recommendations and shall be carefully bladed in-place
- E18.9.5 Only use compaction equipment approved by the contract administrator to compact fill materials above critical pipelines. Compaction of fill materials shall be completed using static methods only, no vibratory compaction will be allowed within the limits noted in these recommendations.
- E18.9.6 Construction operations shall be staged to minimize the time period between excavation to subgrade and placement of granular subbase materials. Should bare subgrade be left overnight, measures shall be implemented to protect the subgrade against inadvertent travel over it and to minimize the impact of wet weather.

E18.10 Subbase and Base Course Construction

- E18.10.1 Subbase or base course materials shall not be dumped directly on pipelines but shall be stockpiled outside limits noted in these recommendations and shall be carefully bladed in-place.
- E18.10.2 Subbase compaction within 3 m horizontal of the centreline of a critical pipeline shall be either carried out by static methods (without vibration) or with smaller approved equipment such as hand held plate packers or smaller roller equipment.

E18.11 Paving

- E18.11.1 When constructing asphalt pavements only non-vibratory compaction should be used within 3 m (horizontal) of the center of critical pipelines.

E19. VIDEO INSPECTION OF SEWERS

DESCRIPTION

- E19.1 This Specification amends CW 2130 and CW 2145. It covers the incidental video inspection of existing sewers following tying in new catch basin leads or the abandonment of existing catch basin leads

CONSTRUCTION METHODS

- E19.2 Video inspection of existing sewers shall be done in accordance with CW 2130 and CW 2145.

MEASUREMENT AND PAYMENT

- E19.3 Video inspection of existing sewers following tying in new catch basin leads or the abandonment of existing catch basin leads shall not be measured and shall be considered incidental to the Work.

E20. COLOURED AGGREGATE

DESCRIPTION

- E20.1 This specification shall supplement CW 3110-R21 "Sub-grade, Sub-base, and Base Course Construction"

CONSTRUCTION METHODS

- E20.2 Add the following to section 2 :

- E20.2.1 As shown on the Drawings and as directed by the Contract Administrator, install red coloured aggregate in the median matching the existing coloured aggregate.

- E20.2.2 A sample or the proposed aggregate must be submitted to the Contract Administrator for approval prior to installation.

MEASUREMENT AND PAYMENT

- E20.3 Add the following to section 6 :

- E20.3.1 The supplying and placing of coloured aggregate will be measured on a volumetric basis and paid for at the Contract Unit Price per cubic metre for "Coloured Aggregate". The volume to be paid for shall be the total number of cubic metres installed in accordance with this specification and accepted by the Contract Administrator, as computed by measurements made by the Contract Administrator.

E21. RED WOOD CHIPS

DESCRIPTION

- E21.1 This specification covers the supply and installation of Red Wood Chips.

CONSTRUCTION METHODS

- E21.2 Supply Red Wood Chips, as noted on the Drawings, behind the sidewalk east of Pepperloaf Crescent.

MEASUREMENT AND PAYMENT

- E21.3 Supply and Installation of Red Wood Chips will be measured on a volumetric basis and paid for at the Contract Unit Price for "Supply and Installation of Red Wood Chips". The volume to be paid for will be the total number of cubic metres of Red Wood Chips in accordance with this Specification, accepted and measured by the Contract Administrator.

E22. ENVIRONMENTAL

DESCRIPTION

E22.1 General

- E22.1.1 Further to the General Conditions, this specification shall cover the storage of equipment, materials, and other construction goods near the Beaverdam Creek that crosses Roblin Boulevard near Berkley Avenue.

CONSTRUCTION METHODS

- E22.2 No storage of equipment, materials, or other construction goods will be allowed beyond the back of sidewalk limit, within the public reserve area, near the Beaverdam Creek.

MEASUREMENT AND PAYMENT

- E22.3 No measurement for payment will be made for performing all supply and operations herein described and shall be considered incidental to the works.

E23. WORKING IN CLOSE PROXIMITY TO GAS INFRASTRUCTURE

DESCRIPTION

- E23.1 While working in close proximity to gas infrastructure, all procedures and precautions outlined in the Appendix 'B'- *Safe Excavation & Safety Watch Guideline* manual, as well as any supplemental direction from Manitoba Hydro contained in Appendix 'C', must be adhered to. Ensure that all locates, and clearances are current and have been received and understood prior to construction.

MEASUREMENT AND PAYMENT

- E23.2 Hydro excavation to locate and verify gas infrastructure as typically required by Manitoba Hydro will be considered incidental to the Work.
- E23.3 Full hydro excavation of any gas main for full exposure longitudinally or transversely in a long and continuous fashion may not be considered incidental to the Work. Measurement and payment will be made at the discretion of the Contract Administrator.
- E23.4 Any costs associated performing Safety Watches will be considered incidental to the Work.

E24. HYDRO EXCAVATION FOR GAS MAIN

DESCRIPTION

E24.1 General

- E24.1.1 This specification covers the removal of earthen material immediately adjacent to underground utilities infrastructure by means of high-pressure water spray, and the recovery of evacuated material by vacuum type means or equivalent method as approved by the Contract Administrator

- E24.2 The following shall be considered critical gas infrastructure for this project:

- E24.2.1 350mm HP gas line running underneath the westbound gutter from Berkley Street to Community Row

- E24.2.2 200mm gas line running underneath the north boulevard sidewalk

MATERIALS

- E24.3 Equipment

- E24.3.1 Hydro Excavation unit shall be capable of maintaining a minimum working pressure of 10,000 psi, at a rate of 10 to 12 gallons per minute. Unit should be adjustable, so as to provide adequate pressure to remove earthen material identified by the Contract Administrator.
- E24.3.2 Spray head shall be equipped with a rotating nozzle, in order to provide a wider path of cut.

CONSTRUCTION METHODS

E24.4 Hydro-Removal of Earthen Material

- E24.4.1 Earthen material adjacent to utility entity shall be sprayed with high pressure water so as to remove all such material identified by the Contract Administrator.

E24.5 Recovery of Excavated Material

- E24.5.1 The recovery of excavated material shall be done using a vacuum type method, or other type of method approved by the Contract Administrator.
- E24.5.2 The recovery of material shall follow immediately behind the excavation, to avoid excavated areas from filling with excavated material.
- E24.5.3 The use of mechanical sweepers will not be allowed.
- E24.5.4 Dispose of material in accordance with Section 3.4 of CW-1130.

E24.6 Backfill of Hydro Excavated Hole

- E24.6.1 The Contractor shall be responsible for the backfill of the hydro excavated hole upon the completion of the Work described herein, to the approval of the Contract Administrator.

E24.7 In addition to the standard gas main locations performed, the Contractor is required to locate and expose the gas main(s) prior to commencing the following works:

- (a) STA 2+825 – CSP Replacement – 200mm/350mm Gas Mains
- (b) STA 2+925 – Catch Basin Lead Replacement – 200mm/350mm Gas Mains
- (c) STA 2+970 – Replace Pavement Approach – 200mm/350mm Gas Mains
- (d) STA 3+200 – Replace Pavement Approach – 200mm/350mm Gas Mains
- (e) STA 3+335 – Install Catch Basin – 200mm Gas Main
- (f) STA 3+550 – Install Catch Basin – 200mm Gas Main
- (g) STA 4+020 – Catch Basin Lead Replacement – 200mm Gas Main

MEASUREMENT AND PAYMENT

E24.8 Hydro Excavation

- E24.8.1 Full Hydro Excavation for Gas Main of earthen material will be measured on an hourly basis and paid for at the Contract Unit Price per hour for “Hydro Excavation for Gas Main”. The hours to be paid for will be the total number of hours of Hydro Excavation in accordance with this Specification, accepted and measured by the Contract Administrator.

E25. **WORKING IN CLOSE PROXIMITY TO HYDRO ELECTRIC INFRASTRUCTURE**

DESCRIPTION

- E25.1 While working in close proximity to hydro electrical cables and pole locations all procedures and precautions outlined in the Appendix ‘B’- *Safe Excavation & Safety Watch Guideline* manual. Ensure that all locates, and clearances are current and have been received and understood prior to construction.

MEASUREMENT AND PAYMENT

- E25.2 Hand excavation and hydro excavation around the hydro poles will be considered incidental to the Work.

E26. VALVE CLEANING

DESCRIPTION

- E26.1 General

- E26.1.1 This specification covers the cleaning of existing valves on site before the start of construction.

CONSTRUCTION METHODS

- E26.2 Valve Cleaning

- E26.2.1 Open valves to visually inspect the current condition.
- E26.2.2 Use necessary equipment to clean dirt and debris from any valves that cannot be operated or where a valve box extension cannot be installed.
- E26.2.3 Prepare a list of deficient items found and provide to the Contract Administrator.

MEASUREMENT AND PAYMENT

- E26.3 Valve cleaning will be measured on a unit basis and paid for at the Contract Unit Price per item for "Valve Cleaning". The number to be paid for shall be the total number of valves cleaned in accordance with this Specification and accepted by the Contract Administrator.

E27. ABANDONED HYDRANT AT STA 3+525

DESCRIPTION

- E27.1 General

- E27.1.1 This specification covers the proper abandonment of the existing previously removed hydrant and valve located within the south sidewalk west of Scotswood Dr (at station 3+535) as identified on the Drawings.

CONSTRUCTION METHODS

- E27.2 Cut, remove and plug previously abandoned hydrant assembly 1m below existing grade. Remove existing valve box and valve stem to the satisfaction of the Contract Administrator.

MEASUREMENT AND PAYMENT

- E27.3 Abandoned Hydrant at Sta 3+525 shall be paid for as follows:
- (a) Removal of the hydrant assembly will be measured on a lineal basis and paid for at the Contract Unit Price per item for "Cut, Remove and Plug previously abandoned Hydrant Assembly". The number to be paid for shall be the total length removed in accordance with this Specification and accepted by the Contract Administrator.
 - (b) Removal of the hydrant valve box will be measured on a unit basis and paid for at the Contract Unit Price per item for "Remove Valve box and Valve Stem". The number to be paid for shall be the total number removed in accordance with this Specification and accepted by the Contract Administrator.

APPENDIX 'A'

GEOTECHNICAL REPORT

APPENDIX 'B'

MANITOBA HYDRO SAFE EXCAVATION & SAFETY WATCH GUIDELINES

APPENDIX 'C'

**MANITOBA HYDRO GAS
INFRASTRUCTURE OPERATING
CONSTRAINTS**

APPENDIX 'D'

**PRELIMINARY TRAFFIC SIGNAL
DRAWINGS**