



**THE CITY OF WINNIPEG**

# **TENDER**

**TENDER NO. 308-2025**

**2025 LOCAL STREET RENEWAL PROGRAM: BURNELL STREET AND VARIOUS  
OTHER LOCATIONS**

## TABLE OF CONTENTS

### PART A - BID SUBMISSION

- Form A: Bid/Proposal
- Form B: Prices
- Form G1: Bid Bond and Agreement to Bond

### PART B - BIDDING PROCEDURES

B1. Contract Title	1
B2. Submission Deadline	1
B3. Site Investigation	1
B4. Enquiries	1
B5. Confidentiality	1
B6. Addenda	2
B7. Substitutes	2
B8. Bid Components	3
B9. Bid	3
B10. Prices	4
B11. Disclosure	4
B12. Conflict of Interest and Good Faith	5
B13. Qualification	6
B14. Bid Security	7
B15. Opening of Bids and Release of Information	7
B16. Irrevocable Bid	8
B17. Withdrawal of Bids	8
B18. Evaluation of Bids	8
B19. Award of Contract	9

### PART C - GENERAL CONDITIONS

C0. General Conditions	1
------------------------	---

### PART D - SUPPLEMENTAL CONDITIONS

#### General

D1. General Conditions	1
D2. Form of Contract Documents	1
D3. Scope of Work	1
D4. Site Investigation Due Diligence and Risk	3
D5. Definitions	4
D6. Contract Administrator	4
D7. Contractor's Supervisor	4
D8. Accessible Customer Service Requirements	5
D9. Supplier Code of Conduct	5
D10. Unfair Labour Practices	5
D11. Furnishing of Documents	6

#### Submissions

D12. Authority to Carry on Business	6
D13. Safe Work Plan	6
D14. Insurance	7
D15. Contract Security	7
D16. Subcontractor List	8
D17. Detailed Work Schedule	8
D18. Requirements for Site Accessibility Plan	9

#### Schedule of Work

D19. Commencement	10
D20. Working Days	10
D21. Restricted Work Hours	11

D22. Work By Others	11
D23. Sequence of Work	11
D24. Critical Stages	12
D25. Substantial Performance	12
D26. Total Performance	12
D27. Liquidated Damages	13
D28. Supply Chain Disruption Schedule Delays	13
D29. Scheduled Maintenance	14
<b>Control of Work</b>	
D30. Job Meetings	14
D31. Prime Contractor – The Workplace Safety and Health Act (Manitoba)	14
D32. The Workplace Safety and Health Act (Manitoba) – Qualifications	14
<b>Invoices &amp; Measurement and Payment</b>	
D33. Measurement and Payment	14
<b>Final Payment</b>	
<b>Invoices</b>	
D34. Payment	16
D35. Fuel Price Adjustment	16
D36. Adjustments for Changes in Laws, Taxes, or Tariffs	17
<b>Warranty</b>	
D37. Warranty	17
<b>Dispute Resolution</b>	
D38. Dispute Resolution	18
<b>Indemnity</b>	
D39. Indemnity	19
<b>Third Party Agreements</b>	
D40. Funding and/or Contribution Agreement Obligations	19
Form J: Subcontractor List	22

## PART E - SPECIFICATIONS

<b>General</b>	
E1. Applicable Specifications and Drawings	1
E2. Mobilization and Demobilization Payment	2
E3. Geotechnical Report	3
E4. Protection Of Existing Trees	3
E5. Traffic Control	3
E6. Traffic Management	4
E7. Refuse and Recycling Collection	5
E8. Pedestrian Safety	6
E9. Water Obtained From the City	6
E10. Surface Restorations	6
E11. Infrastructure Signs	6
E12. Barrier Curb and Arched Gutter Inlet Frame, Box and Inlet Cover	6
E13. Supply and Install Watermain and Water Service Insulation	7
E14. Construction of Various Curb Types for Asphalt Pavement	8
E15. Working Near AC Watermains	9
E16. Hauling and Placement of 50mm Granular B Recycled Concrete Aggregate	10
E17. Asphalt Pavement Works	11
E18. Construction of Asphalt Speed Humps	11
E19. Sidewalk Expansion Joints	12
E20. Protection of Geomatic Infrastructure	13
E21. Soft Excavation to Expose Underground Utilities	13
E22. Exploration of Existing Utilities and Services	14
E23. Installation of Energy Mitigation Frames and Cover	15
E24. Street Light Renewals	16

E25. Installation of Street Lighting and Associated Works	16
E26. Traffic Signals Cutovers	31
E27. Traffic Signals Service Box Pre-Cast	31
E28. Traffic Signals Installation of Early Open Concrete Bases	31
E29. Traffic Signals Installation of Pre-Cast Type PM Bases	32
E30. Traffic Signals Splicing Conduit	32
E31. Traffic Signals Anchor Bolt Projections for Concrete Bases	32
E32. Tree and Shrub Removal	32
E33. Restoration of Paint Markings and Symbols	34
Appendix A	Geotechnical Report
Appendix B	Temporary Traffic Control Drawings
Appendix C	Asphalt Pavement Curb Details
Appendix D	Construction Details
Appendix E	Asphalt Pavement Works
Appendix F	Manitoba Hydro Energy Mitigation Frame and Covers
Appendix G	Manitoba Hydro Street Light Documents

## **PART B - BIDDING PROCEDURES**

### **B1. CONTRACT TITLE**

B1.1 2025 Local Street Renewal Program: Burnell Street and Various Other Locations

### **B2. SUBMISSION DEADLINE**

B2.1 The Submission Deadline is 12:00 noon Winnipeg time, April 23, 2025.

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

### **B3. SITE INVESTIGATION**

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

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

### **B4. ENQUIRIES**

B4.1 All enquiries shall be directed to the Contract Administrator identified in D5.1.

B4.2 If the Bidder finds errors, discrepancies or omissions in the Tender, or is unsure of the meaning or intent of any provision therein, the Bidder shall notify the Contract Administrator of the error, discrepancy or omission, or request a clarification as to the meaning or intent of the provision at least five (5) Business Days prior to the Submission Deadline.

B4.3 Responses to enquiries which, in the sole judgment of the Contract Administrator, require a correction to or a clarification of the Tender will be provided by the Contract Administrator to all Bidders by issuing an addendum.

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

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

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

### **B5. CONFIDENTIALITY**

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

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

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

## **B6. ADDENDA**

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

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

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

B6.4 The Bidder is responsible for ensuring that they have received all addenda and is advised to check the MERX website for addenda regularly and shortly before the Submission Deadline, as may be amended by addendum.

B6.5 The Bidder shall acknowledge receipt of each addendum in Paragraph 10 of Form A: Bid/Proposal. Failure to acknowledge receipt of an addendum may render a Bid non-responsive.

B6.6 Notwithstanding B4, enquiries related to an Addendum may be directed to the Contract Administrator indicated in D5.

## **B7. SUBSTITUTES**

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

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

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

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

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

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

## **B8. BID COMPONENTS**

- B8.1 The Bid shall consist of the following components:
- (a) Form A: Bid;
  - (b) Form B: Prices;
  - (c) Form G1: Bid Bond and Agreement to Bond.
- B8.2 All components of the Bid shall be fully completed or provided, and submitted by the Bidder no later than the Submission Deadline, with all required entries made clearly and completely.
- B8.3 The Bid shall be submitted electronically through MERX at [www.merx.com](http://www.merx.com).
- B8.3.1 Bids will **only** be accepted electronically through MERX.
- B8.4 Bidders are advised that inclusion of terms and conditions inconsistent with the Tender document, including the General Conditions, will be evaluated in accordance with B18.1(a).

## **B9. BID**

- B9.1 The Bidder shall complete Form A: Bid/Proposal, making all required entries.
- B9.2 Paragraph 2 of Form A: Bid/Proposal shall be completed in accordance with the following requirements:
- (a) if the Bidder is a sole proprietor carrying on business in their own name, their name shall be inserted;
  - (b) if the Bidder is a partnership, the full name of the partnership shall be inserted;
  - (c) if the Bidder is a corporation, the full name of the corporation shall be inserted;
  - (d) if the Bidder is carrying on business under a name other than their own, the business name and the name of every partner or corporation who is the owner of such business name shall be inserted.
- B9.2.1 If a Bid is submitted jointly by two or more persons, each and all such persons shall identify themselves in accordance with B9.2.

- B9.3 In Paragraph 3 of Form A: Bid/Proposal, the Bidder shall identify a contact person who is authorized to represent the Bidder for purposes of the Bid.
- B9.4 Paragraph 13 of Form A: Bid/Proposal shall be signed in accordance with the following requirements:
- (a) if the Bidder is a sole proprietor carrying on business in their own name, it shall be signed by the Bidder;
  - (b) if the Bidder is a partnership, it shall be signed by the partner or partners who have authority to sign for the partnership;
  - (c) if the Bidder is a corporation, it shall be signed by their duly authorized officer or officers;
  - (d) if the Bidder is carrying on business under a name other than their own, it shall be signed by the registered owner of the business name, or by the registered owner's authorized officials if the owner is a partnership or a corporation.
- B9.4.1 The name and official capacity of all individuals signing Form A: Bid/Proposal should be entered below such signatures.
- B9.5 If a Bid is submitted jointly by two or more persons, the word "Bidder" shall mean each and all such persons, and the undertakings, covenants and obligations of such joint Bidders in the Bid and the Contract, when awarded, shall be both joint and several.

## **B10. PRICES**

- B10.1 The Bidder shall state a price in Canadian funds for each item of the Work identified on Form B: Prices.
- B10.1.1 Prices stated on Form B: Prices shall not include any costs which may be incurred by the Contractor with respect to any applicable funding agreement obligations as outlined in D40. Any such costs shall be determined in accordance with D40.
- B10.2 The quantities listed on Form B: Prices are to be considered approximate only. The City will use said quantities for the purpose of comparing Bids.
- B10.3 The quantities for which payment will be made to the Contractor are to be determined by the Work actually performed and completed by the Contractor, to be measured as specified in the applicable Specifications.
- B10.4 Payments to Non-Resident Contractors are subject to Non-Resident Withholding Tax pursuant to the Income Tax Act (Canada).
- B10.5 The Bidder shall enter the Total Bid Price from Form B: Prices into the Total Bid Price field in MERX.
- B10.5.1 Bidders are advised that the calculation indicated in B18.4 will prevail over the Total Bid Price entered in MERX.
- B10.6 Form B: Prices is organized into Part 1, Part 2, Part 3 and Part 4 of the Work. Bidders shall provide a total price for each Part and, on the summary sheet, a Total Bid Price consisting of the sum of prices for all parts and mobilization/demobilization.

## **B11. DISCLOSURE**

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



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

- B12.1** Further to C3.2, Bidders, by responding to this Tender, declare that no Conflict of Interest currently exists, or is reasonably expected to exist in the future.
- B12.2** Conflict of Interest means any situation or circumstance where a Bidder or employee of the Bidder proposed for the Work has:
- (a) other commitments;
  - (b) relationships;
  - (c) financial interests; or
  - (d) involvement in ongoing litigation;
- that could or would be seen to:
- (i) exercise an improper influence over the objective, unbiased and impartial exercise of the independent judgment of the City with respect to the evaluation of Bids or award of the Contract; or
  - (ii) compromise, impair or be incompatible with the effective performance of a Bidder's obligations under the Contract;
- (e) has contractual or other obligations to the City that could or would be seen to have been compromised or impaired as a result of their participation in the Tender process or the Work; or
  - (f) has knowledge of confidential information (other than confidential information disclosed by the City in the normal course of the Tender process) of strategic and/or material relevance to the Tender process or to the Work that is not available to other bidders and that could or would be seen to give that Bidder an unfair competitive advantage.
- B12.3** In connection with their Bid, each entity identified in B12.2 shall:
- (a) avoid any perceived, potential or actual Conflict of Interest in relation to the procurement process and the Work;
  - (b) upon discovering any perceived, potential or actual Conflict of Interest at any time during the Tender process, promptly disclose a detailed description of the Conflict of Interest to the City in a written statement to the Contract Administrator; and
  - (c) provide the City with the proposed means to avoid or mitigate, to the greatest extent practicable, any perceived, potential or actual Conflict of Interest and shall submit any additional information to the City that the City considers necessary to properly assess the perceived, potential or actual Conflict of Interest.
- B12.4** Without limiting B12.3, the City may, in their sole discretion, waive any and all perceived, potential or actual Conflicts of Interest. The City's waiver may be based upon such terms and conditions as the City, in their sole discretion, requires to satisfy itself that the Conflict of Interest has been appropriately avoided or mitigated, including requiring the Bidder to put into place such policies, procedures, measures and other safeguards as may be required by and be acceptable to the City, in their sole discretion, to avoid or mitigate the impact of such Conflict of Interest.
- B12.5** Without limiting B12.3, and in addition to all contractual or other rights or rights at law or in equity or legislation that may be available to the City, the City may, in their sole discretion:
- (a) disqualify a Bidder that fails to disclose a perceived, potential or actual Conflict of Interest of the Bidder or any of their employees proposed for the Work;
  - (b) require the removal or replacement of any employees proposed for the Work that has a perceived, actual or potential Conflict of Interest that the City, in their sole discretion, determines cannot be avoided or mitigated;
  - (c) disqualify a Bidder or employees proposed for the Work that fails to comply with any requirements prescribed by the City pursuant to B12.4 to avoid or mitigate a Conflict of Interest; and

- (d) disqualify a Bidder if the Bidder, or one of their employees proposed for the Work, has a perceived, potential or actual Conflict of Interest that, in the City's sole discretion, cannot be avoided or mitigated, or otherwise resolved.

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

### **B13. QUALIFICATION**

B13.1 The Bidder shall:

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

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

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

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

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

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

- (a) Written confirmation of a safety and health certification meeting SAFE Work Manitoba's SAFE Work Certified Standard (e.g., COR™ and SECOR™) in the form of:
  - (i) a copy of their valid Manitoba COR certificate and Letter of Good Standing (or Manitoba equivalency) as issued under the Certificate of Recognition (COR) Program administered by the Construction Safety Association of Manitoba or by the Manitoba Heavy Construction Association's WORKSAFELY™ COR™ Program; or
  - (ii) a copy of their valid Manitoba SECOR™ certificate and Letter of Good Standing (or Manitoba equivalency) as issued under the Small Employer Certificate of Recognition Program (SECOR™) administered by the Construction Safety Association of Manitoba or by the Manitoba Heavy Construction Association's WORKSAFELY™ COR™ Program; or
- (b) a report or letter to that effect from an independent reviewer acceptable to the City. (A list of acceptable reviewers and the review template are available on the Information Connection page at The City of Winnipeg, Corporate Finance, Purchasing Division website at <http://www.winnipeg.ca/matmgt/>).

- B13.5 Further to B13.3(d), the Bidder acknowledges they and all Subcontractors have obtained training required by the Accessibility for Manitobans Act (AMA) available at [Accessibility Training](#) for anyone that may have any interaction with the public on behalf of the City of Winnipeg.
- B13.6 The Bidder shall submit, within three (3) Business Days of a request by the Contract Administrator, proof satisfactory to the Contract Administrator of the qualifications of the Bidder and of any proposed Subcontractor.
- B13.7 The Bidder shall provide, on the request of the Contract Administrator, full access to any of the Bidder's equipment and facilities to confirm, to the Contract Administrator's satisfaction, that the Bidder's equipment and facilities are adequate to perform the Work.

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

- B14.1 The Bidder shall include in their Bid Submission bid security in the form of a digital bid bond, in the amount of at least ten percent (10%) of the Total Bid Price, and agreement to bond of a company registered to conduct the business of a surety in Manitoba, in Form G1: Bid Bond and Agreement to Bond, available at [Form G1 Bid Bond & Agreement to Bond](#).
- B14.2 Bid security shall be submitted in a digital format meeting the following criteria:
- (a) The version submitted by the Bidder must have valid digital signatures and seals;
  - (b) The version submitted by the Bidder must be verifiable by the City with respect to the totality and wholeness of the bond form, including: the content; all digital signatures and digital seals; with the surety company, or an approved verification service provider of the surety company.
  - (c) The version submitted must be viewable, printable and storable in standard electronic file formats compatible with the City, and in a single file. Allowable formats include pdf.
  - (d) The verification may be conducted by the City immediately or at any time during the life of the bond and at the discretion of the City with no requirement for passwords or fees.
  - (e) The results of the verification must provide a clear, immediate and printable indication of pass or fail regarding B14.2(a).
- B14.3 Bonds failing the verification process will not be considered to be valid and the bid shall be determined to be non-responsive in accordance with B18.1(a).
- B14.4 Bonds passing the verification process will be treated as original and authentic.
- B14.4.1 If the Bidder submits alternative bids, the bid security shall be in the amount of the specified percentage of the highest Total Bid Price submitted.
- B14.5 The bid security of the successful Bidder and the next two lowest evaluated responsive and responsible Bidders will be released by the City when a Contract for the Work has been duly formed with the successful Bidder and the contract securities are furnished as provided herein. The bid securities of all other Bidders will be released when a Contract is awarded.
- B14.6 The bid securities of all Bidders will be released by the City as soon as practicable following notification by the Contract Administrator to the Bidders that no award of Contract will be made pursuant to the Tender.

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

- B15.1 Bids will not be opened publicly.
- B15.2 Following the submission deadline, the names of the Bidders and their Total Bid Prices (unevaluated, and pending review and verification of conformance with requirements) will be available on the MERX website at [www.merx.com](http://www.merx.com).

B15.3 After award of Contract, the name(s) of the successful Bidder(s) and their Contract amount(s) will be available on the MERX website at [www.merx.com](http://www.merx.com).

B15.4 The Bidder is advised that any information contained in any Bid may be released if required by The Freedom of Information and Protection of Privacy Act (Manitoba), by other authorities having jurisdiction, or by law or by City policy or procedures (which may include access by members of City Council).

B15.4.1 To the extent permitted, the City shall treat as confidential information, those aspects of a Bid Submission identified by the Bidder as such in accordance with and by reference to Part 2, Section 17 or Section 18 or Section 26 of The Freedom of Information and Protection of Privacy Act (Manitoba), as amended.

## **B16. IRREVOCABLE BID**

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

B16.2 The acceptance by the City of any Bid shall not release the Bids of the next two lowest evaluated responsive Bidders and these Bidders shall be bound by their Bids on such Work until a Contract for the Work has been duly formed and the contract securities have been furnished as herein provided, but any Bid shall be deemed to have lapsed unless accepted within the time period specified in Paragraph 11 of Form A: Bid/Proposal.

## **B17. WITHDRAWAL OF BIDS**

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

## **B18. EVALUATION OF BIDS**

B18.1 Award of the Contract shall be based on the following bid evaluation criteria:

- (a) compliance by the Bidder with the requirements of the Tender, or acceptable deviation therefrom (pass/fail);
- (b) qualifications of the Bidder and the Subcontractors, if any, pursuant to B13 (pass/fail);
- (c) Total Bid Price;
- (d) economic analysis of any approved alternative pursuant to B7.

B18.2 Further to B18.1(a), the Award Authority may reject a Bid as being non-responsive if the Bid is incomplete, obscure or conditional, or contains additions, deletions, alterations or other irregularities. The Award Authority may reject all or any part of any Bid, or waive technical requirements or minor informalities or irregularities, if the interests of the City so require.

- (a) Any bid with an apparent imbalance between the unit prices in Part 1, Part 2, Part 3 and Part 4 may be determined to be non-responsive and rejected by the Award Authority in their sole discretion, acting reasonably.

B18.3 Further to B18.1(b), the Award Authority shall reject any Bid submitted by a Bidder who does not demonstrate, in their Bid or in other information required to be submitted, that they are qualified.

B18.4 Further to B18.1(c), the Total Bid Price shall be the sum of the quantities multiplied by the unit prices for each item shown on Form B: Prices.

B18.4.1 Further to B18.1(a), in the event that a unit price is not provided on Form B: Prices, the City may determine the unit price by dividing the Amount (extended price) by the approximate quantity, for the purposes of evaluation and payment.

B18.4.2 Bidders are advised that the calculation indicated in B18.4 will prevail over the Total Bid Price entered in MERX.

**B19. AWARD OF CONTRACT**

- B19.1 The City will give notice of the award of the Contract or will give notice that no award will be made.
- B19.2 The City will have no obligation to award a Contract to a Bidder, even though one or all of the Bidders are determined to be qualified, and the Bids are determined to be responsive.
- B19.2.1 Without limiting the generality of B19.2, the City will have no obligation to award a Contract where:
- (a) the prices exceed the available City funds for the Work;
  - (b) the prices are materially in excess of the prices received for similar work in the past;
  - (c) the prices are materially in excess of the City's cost to perform the Work, or a significant portion thereof, with their own forces;
  - (d) only one Bid is received; or
  - (e) in the judgment of the Award Authority, the interests of the City would best be served by not awarding a Contract.
- B19.3 The Work of this Contract is contingent upon Council approval of sufficient funding in the 2025 Capital Budget. If the Capital Budget approved by Council does not include sufficient funding for the Work, the City will have no obligation to award a Contract.
- B19.4 If funding for the Work is provided to the City of Winnipeg by the Government of Manitoba and/or the Government of Canada, Bidders are advised that the terms of D40 shall immediately take effect upon confirmation of such funding, regardless of when funding is confirmed.
- B19.5 Where an award of Contract is made by the City, the award shall be made to the qualified Bidder submitting the lowest evaluated responsive Bid, in accordance with B18.
- B19.5.1 Following the award of contract, a Bidder will be provided with information related to the evaluation of their Bid upon written request to the Contract Administrator.
- B19.6 As noted in D3 and identified in Form B: Prices, the Work of Part 4 will be contingent upon Manitoba Hydro approving funding for the Work. If sufficient funding for Part 4 Work is not approved by Manitoba Hydro, the City shall have the right to eliminate all or any portion of Part 4 Work in accordance with D3

## PART C - GENERAL CONDITIONS

### C0. GENERAL CONDITIONS

- C0.1 The *General Conditions for Construction* (Revision 2020-01-31) are applicable to the Work of the Contract.
- C0.1.1 The *General Conditions for Construction* are available on the Information Connection page at The City of Winnipeg, Corporate Finance, Purchasing Division website at [http://www.winnipeg.ca/matmgt/gen\\_cond.stm](http://www.winnipeg.ca/matmgt/gen_cond.stm)
- C0.2 A reference in the Tender to a section, clause or subclause with the prefix “**C**” designates a section, clause or subclause in the *General Conditions for Construction*.

## **PART D - SUPPLEMENTAL CONDITIONS**

### **GENERAL**

#### **D1. GENERAL CONDITIONS**

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

#### **D2. FORM OF CONTRACT DOCUMENTS**

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

#### **D3. SCOPE OF WORK**

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

- (a) Part 1 – City Funded Work
- (b) Part 2 – Water and Waste Work
- (c) Part 3 – Traffic Signals Work
- (d) Part 4 – Manitoba Hydro Funded Work

##### **Part 1 – City Funded Work**

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

- (a) Asphalt Pavement Reconstruction
  - (i) Burnell Street from St. Matthews Avenue to Ellice Avenue;
  - (ii) McMicken Street from Ellice Avenue to Sargent Avenue
  - (iii) Kennedy Street / Edmonton Street Alley from York Avenue to St. Mary's Avenue;
  - (iv) Langside Avenue from Cumberland Avenue to Notre Dame Avenue;
- (b) Major Concrete Pavement Rehabilitation
  - (i) Qu'Appelle Avenue from Balmoral Street to Kennedy Street; and
- (c) Minor Concrete Pavement Rehabilitation
  - (i) McGee Street from St. Matthews Avenue to Ellice Avenue.

##### **Part 2 – Water and Waste Work**

- D3.3 Part 2 – Water and Waste Work shall consist of:

- (a) Manhole Repairs
  - (i) McGee Street
- (b) Sewer Repairs
  - (i) McGee Street

##### **Part 3 – Traffic Signals Work**

- D3.4 Part 3 – Traffic Signals Work shall consist of:

- (a) Traffic Signals
  - (i) Burnell Street at St. Matthews Avenue

##### **Part 4 – Manitoba Hydro Work**

- D3.5 Part 4 – Manitoba Hydro Funded Work shall consist of:

- (a) Street Light Installation
  - (i) Burnell Street from St. Matthews Avenue to Ellice Avenue

The City currently has no approved funding in the Capital Budget for Part 4 of the Work, but is anticipating receiving notification about funding from Manitoba Hydro by late May 2025. Part 4 of the Work is contingent upon Manitoba Hydro approving sufficient funding.

D3.6 The major components of the Work are as follows:

- (a) Asphalt Pavement Reconstruction
  - (i) Removal of existing sidewalk;
  - (ii) Planing of existing asphalt at intersections as required;
  - (iii) Renewal of existing concrete sidewalk as required;
  - (iv) Tree stump grinding;
  - (v) Construction of 100mm concrete sidewalk;
  - (vi) Installation of detectable warning surface tiles;
  - (vii) Removal of existing pavement;
  - (viii) Removal of existing curb;
  - (ix) Abandon existing catch basins and drainage inlets;
  - (x) Installation of catch basins and sewer service pipes;
  - (xi) Installation of subdrains;
  - (xii) Excavation;
  - (xiii) Compaction of existing sub-grade;
  - (xiv) Adjustment of existing pavement and boulevard structures;
  - (xv) Placement of separation geotextile fabric and Type A geogrid;
  - (xvi) Placement of sub-base material (placed in two lifts);
  - (xvii) Placement of base course material;
  - (xviii) Installation of Traffic Signals conduit, service boxes, and concrete bases;
  - (xix) Construction of select curb types for asphalt pavement, utilizing slip-form paving equipment;
  - (xx) Construction of modified barrier curb with reversed gutter for asphalt pavement;
  - (xxi) Construction of curb ramp for asphalt pavement;
  - (xxii) Construction of 150mm concrete pavement (plain-dowelled) for inlet isolations for asphalt pavement;
  - (xxiii) Construction of modified barrier curb;
  - (xxiv) Construction of curb ramp;
  - (xxv) Construction of 40mm lip curb (separate);
  - (xxvi) Renewal of existing curb as required;
  - (xxvii) Renewal of existing curb ramp;
  - (xxviii) Renewal of existing curb and gutter as required;
  - (xxix) Boulevard restoration and sod;
  - (xxx) Placement of asphalt pavement (Type MS2, 55mm thickness);
  - (xxxi) Placement of asphalt pavement (Type MS1, 70mm thickness);
  - (xxxii) Placement of asphalt pavement tie-ins;
  - (xxxiii) Planing or removal of existing asphalt for asphalt speed hump; and
  - (xxxiv) Construction of asphalt speed hump, as required.
- (b) Concrete Pavement Rehabilitation (Major/Minor)
  - (i) Removal of existing asphalt, as required,
  - (ii) Renewal of existing concrete sidewalk;



- (iii) Excavation;
- (iv) Compaction of sub-grade;
- (v) Installation of geotextile;
- (vi) Placement and compaction of sub-base material;
- (vii) Installation of geogrid;
- (viii) Placement and compaction of base material;
- (ix) Construction of new concrete sidewalk;
- (x) Renewal or construction of curb ramps;
- (xi) Installation of detectable warning surface tiles;
- (xii) Abandoning existing drainage inlets;
- (xiii) Removal of existing catch pits;
- (xiv) Installation of new catch pits;
- (xv) Installation of new catch basins;
- (xvi) Connecting new pipe to existing sewer or existing catch basins;
- (xvii) Repair of existing catch basin leads;
- (xviii) Full depth concrete repairs of existing slabs and joints;
- (xix) Adjustment of existing pavement and boulevard structures;
- (xx) Renewal of existing curb as required;
- (xxi) Construction of modified barrier curb;
- (xxii) Boulevard grading;
- (xxiii) Placement and compaction of topsoil;
- (xxiv) Installation of pavement repair fabric (Type B);
- (xxv) Placement of main line asphalt pavement overlay (Type MS1);
- (xxvi) Placement of asphalt pavement at tie-ins and approaches (Type MS1); and
- (xxvii) Placement of sod.
- (c) Water and Waste Work
  - (i) External point repairs to existing sewer mains
  - (ii) Replacement of manhole risers
  - (iii) External point repairs of existing sewers;
  - (iv) Repairs to manhole structures; and
  - (v) Sewer and sewer service video inspection.
- (d) Traffic Signals Work
  - (i) Installation of traffic signals conduit, service boxes, and concrete bases.
- (e) Street Light Installation
  - (i) Installation and removal of temporary overhead spans;
  - (ii) Removal of existing street light poles and bases;
  - (iii) Installation of new pre-cast concrete bases including luminaires and appurtenances;
  - (iv) Installation of new street lighting cables in conduit (boring) and street light poles, including cable termination; and
  - (v) Installation of ground rods.

#### **D4. SITE INVESTIGATION DUE DILIGENCE AND RISK**

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

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

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

## D5. DEFINITIONS

D5.1 When used in this Tender:

- (a) **“Payment Certification”** means the Contract Administrator’s statement of the sums certified to be paid by the City to the Contractor with reference to its interim and final progress estimates and/or the Contractor’s Proper Invoice;
- (b) **“Proper Invoice”** means the definition within *The Builders’ Liens Act*, R.S.M. 1987, c. B91 and any subsequent amendments thereto, and also includes the criteria to be included in an invoice, as set out in the Measurement and Payment provisions of the Contract;
- (c) **“Supply Chain Disruption”** means an inability by the Contractor to obtain goods or services from third parties necessary to perform the Work of the Contract within the schedule specified therein, despite the Contractor making all reasonable commercial efforts to procure same. Contractors are advised that increased costs do not, in and of themselves, amount to a Supply Chain Disruption.
- (d) **“The Builders’ Liens Act”** or **“the BLA”** means *The Builders’ Liens Act*, R.S.M. 1987, c. B91 and any subsequent amendments thereto.

## D6. CONTRACT ADMINISTRATOR

D6.1 The Contract Administrator is KGS Group, represented by:

Steve Penner, Eng.L.  
Project Manager

Telephone No. 204 896-1209

Email Address: spenner@ksgsgroup.com

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

## D7. CONTRACTOR'S SUPERVISOR

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

D7.2 At least two (2) Business Days prior to the commencement of any Work on the site, the Contractor shall provide the Contract Administrator with a phone number where the supervisor

identified in D7.1 or an alternate can be contacted twenty-four (24) hours a day to respond to an emergency.

## **D8. ACCESSIBLE CUSTOMER SERVICE REQUIREMENTS**

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

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

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

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

## **D9. SUPPLIER CODE OF CONDUCT**

D9.1 The Contractor has reviewed and understands the City's Supplier Code of Conduct. This document is located at: <https://www.winnipeg.ca/media/4891>

D9.2 The Contractor agrees to comply with the Supplier Code of Conduct as it may be amended or replaced from time to time. The Contractor is responsible for periodically checking the above link for updates to the Supplier Code of Conduct. Contract signature on Form A: Bid/Proposal from the Contractor signifies agreement to the Supplier Code of Conduct which comes into effect once the Contract starts.

D9.3 If there is a conflict between the Contract and the Supplier Code of Conduct – the Contract will prevail.

## **D10. UNFAIR LABOUR PRACTICES**

D10.1 Further to C3.2, the Contractor declares that in bidding for the Work and in entering into this Contract, the Contractor and any proposed Subcontractor(s) conduct their respective business in accordance with established international codes embodied in United Nations Universal Declaration of Human Rights (UDHR) <https://www.un.org/en/about-us/universal-declaration-of-human-rights> International Labour Organization (ILO) [https://www.ilo.org/global/lang--en/index.htm](https://www.ilo.org/global/lang-en/index.htm) conventions as ratified by Canada.

D10.2 The City of Winnipeg is committed and requires its Contractors and their Subcontractors, to be committed to upholding and promoting international human and labour rights, including fundamental principles and rights at work covered by ILO eight (8) fundamental conventions and the United Nations Universal Declaration of Human Rights which includes child and forced labour.

- D10.3 Upon request from the Contract Administrator, the Contractor shall provide disclosure of the sources (by company and country) of the raw materials used in the Work and a description of the manufacturing environment or processes (labour unions, minimum wages, safety, etc.).
- D10.4 Failure to provide the evidence required under D10.3, may be determined to be an event of default in accordance with C18.
- D10.5 In the event that the City, in its sole discretion, determines the Contractor to have violated the requirements of this section, it will be considered a fundamental breach of the Contract and the Contractor shall pay to the City a sum specified by the Contract Administrator in writing ("Unfair Labour Practice Penalty"). Such a violation shall also be considered an Event of Default, and shall entitle the City to pursue all other remedies it is entitled to in connection with same pursuant to the Contract.
- D10.5.1 The Unfair Labour Practice Penalty shall be such a sum as determined appropriate by the City, having due regard to the gravity of the Contractor's violation of the above requirements, any cost of obtaining replacement goods/ services or rectification of the breach, and the impact upon the City's reputation in the eyes of the public as a result of same.
- D10.5.2 The Contractor shall pay the Unfair Labour Practice Penalty to the City within thirty (30) Calendar Days of receiving a demand for same in accordance with D10.5. The City may also hold back the amount of the Unfair Labour Practice Penalty from payment for any amount it owes the Contractor.
- D10.5.3 The obligations and rights conveyed by this clause survive the expiry or termination of this Contract, and may be exercised by the City following the performance of the Work, should the City determine, that a violation by the Contractor of the above clauses has occurred following same. In no instance shall the Unfair Labour Practice Penalty exceed the total of twice the Contract value.

## **D11. FURNISHING OF DOCUMENTS**

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

## **SUBMISSIONS**

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

- D12.1 The Contractor shall be in good standing under The Corporations Act (Manitoba), or properly registered under The Business Names Registration Act (Manitoba), or otherwise properly registered, licensed or permitted by law to carry on business in Manitoba, or if the Contractor does not carry on business in Manitoba, in the jurisdiction where the Contractor does carry on business, throughout the term of the Contract, and shall provide the Contract Administrator with evidence thereof upon request.

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

- D13.1 The Contractor shall provide the Contract Administrator with a Safe Work Plan at least five (5) Business Days prior to the commencement of any Work on the Site but in no event later than the date specified in C4.1 for the return of the executed Contract Documents, if applicable.
- D13.2 The Safe Work Plan shall be prepared and submitted in the format shown in the City's template which is available on the Information Connection page at The City of Winnipeg, Corporate Finance, Purchasing Division website at <http://www.winnipeg.ca/matmgt/safety/default.stm>
- D13.3 Notwithstanding B13.4 at any time during the term of the Contract, the City may, at their sole discretion and acting reasonably, require an updated COR Certificate or Annual Letter of good

Standing. A Contractor, who fails to provide a satisfactory COR Certificate or Annual Letter of good Standing, will not be permitted to continue to perform any Work.

#### **D14. INSURANCE**

D14.1 The Contractor shall provide and maintain the following insurance coverage:

- (a) commercial general liability insurance, in the amount of at least five million dollars (\$5,000,000.00) inclusive, with The City of Winnipeg added as an additional insured, with a cross-liability clause, such liability policy to also contain contractual liability, unlicensed motor vehicle liability, non-owned automobile liability, broad form property damage cover and products and completed operations, to remain in place at all times during the performance of the Work and throughout the warranty period;
- (b) Automobile Liability Insurance covering all motor vehicles, owned and operated and used or to be used by the Contractor directly or indirectly in the performance of the Work. The Limit of Liability shall not be less than \$2,000,000 inclusive for loss or damage including personal injuries and death resulting from any one accident or occurrence;
- (c) Property insurance for all mobile offices, portable toilets, machinery and equipment used in the connection of the works.

D14.2 Deductibles shall be borne by the Contractor.

D14.3 All policies shall be taken out with insurers licensed to carry business in the Province of Manitoba.

D14.4 The Contractor shall provide the City Solicitor with a certificate(s) of insurance, in a form satisfactory to the City Solicitor, at least two (2) Business Days prior to the commencement of any Work but in no event later than the date specified in the C4.1 for the return of the executed Contract Documents, as applicable.

D14.5 The Contractor shall not cancel, materially alter, or cause each policy to lapse without providing at least thirty (30) Calendar Days prior written notice to the Contract Administrator.

#### **D15. CONTRACT SECURITY**

D15.1 The Contractor shall provide and maintain the performance bond and the labour and material payment bond until the expiration of the warranty period in the form of:

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

D15.1.1 Bonds are available at:

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

<https://www.winnipeg.ca/media/4836/>

- D15.1.2 Where the contract security is a performance bond, it may be submitted in hard copy or digital format. If submitted in digital format the contract security must meet the following criteria:
- (a) the version submitted by the Contractor must have valid digital signatures and seals;
  - (b) the version submitted by the Contractor must be verifiable by the City with respect to the totality and wholeness of the bond form, including: the content; all digital signatures and digital seals; with the surety company, or an approved verification service provider of the surety company.
  - (c) the version submitted must be viewable, printable and storable in standard electronic file formats compatible with the City, and in a single file. Allowable formats include pdf.
  - (d) the verification may be conducted by the City immediately or at any time during the life of the bond and at the discretion of the City with no requirement for passwords or fees.
  - (e) the results of the verification must provide a clear, immediate and printable indication of pass or fail regarding D15.1(b).
- D15.1.3 Digital bonds failing the verification process will not be considered to be valid and may be determined to be an event of default in accordance with C18.1. If a digital bond fails the verification process, the Contractor may provide a replacement bond (in hard copy or digital format) within seven (7) Calendar Days of the City's request or within such greater period of time as the City in their discretion, exercised reasonably, allows.
- D15.1.4 Digital bonds passing the verification process will be treated as original and authentic.
- D15.2 The Contractor shall provide the Contract Administrator identified in D5 with the required performance and labour and material payment bonds within seven (7) Calendar Days of notification of the award of the Contract by way of an award letter and prior to the commencement of any Work on the Site but in no event later than the date specified in C4.1 for the return of the executed Contract Documents, if applicable.
- D15.3 The Contractor shall, as soon as practicable after entering into a contract with a Subcontractor:
- (a) give the Subcontractor written notice of the existence of the labour and material payment bond in D15.1(b); and
  - (b) post a notice of the bond and/or a copy of that bond in a conspicuous location at the Site of the Work.

## **D16. SUBCONTRACTOR LIST**

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

## **D17. DETAILED WORK SCHEDULE**

- D17.1 The Contractor shall provide the Contract Administrator with a detailed work schedule at least two (2) Business Days prior to the commencement of any Work on the Site but in no event later than the date specified in the General Conditions for the return of the executed Contract Documents, as applicable.
- D17.2 If, prior to submitting the Detailed Work Schedule, the Contractor does not receive notification pursuant to D19.4 that all or some portion of Part 4 of the Work may be commenced, they shall complete the Detailed Work Schedule for only Part 1, 2 and 3 of the Work assuming that, if all of

Part 4 is eliminated, the time periods stipulated in D25 for Substantial Performance of the Work and in D26 for Total Performance of the Work will be reduced by two (2) Working Days.

- D17.3 If, after submitting the Detailed Work Schedule, the Contractor receives notification that all or any portion of Part 4 of the Work may be commenced, they shall submit a revised Detailed Work Schedule no later than two (2) Business Days from receipt of the notification.
- D17.4 The detailed work schedule shall consist of the following:
- (a) a Gantt chart for the Work acceptable to the Contract Administrator.
- D17.5 Further to D17.4(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.

## **D18. REQUIREMENTS FOR SITE ACCESSIBILITY PLAN**

- D18.1 The Contractor shall provide the Contract Administrator with an Accessibility Plan at least five (5) Business Days prior to the commencement of any Work on the Site but in no event later than the date specified in C4.1 for the return of the executed Contract Documents, if applicable.
- D18.2 The Accessibility Plan shall demonstrate how the Contractor will accommodate the safe passage of pedestrians and cyclists in accordance with the Manual of Temporary Traffic Control, the Contract Drawings, Staging Plans, and Streets By-Law No. 1481/77 at all times for the duration of the Construction. Unless noted in the Contract, the Accessibility Plan must include a written plan for the following:
- (a) How the Contractor will maintain at least one crossing in each direction for each intersection (one north/south crosswalk and one east/west crosswalk).
  - (b) How the Contractor will maintain access to bus stops within the site.
  - (c) How the Contractor will maintain access to pedestrian corridors and half signals.
  - (d) How the Contractor will maintain cycling facilities.
  - (e) How the Contractor will maintain access to residents and businesses unless otherwise noted in the Contract.
  - (f) Any required detour signage at adjacent crossings to facilitate sidewalk or active transportation pathway closures.
- D18.3 The Accessibility Plan may also include figures, sketches, or drawings to demonstrate the proposed plan.
- D18.4 The Accessibility Plan shall include written details on how the Contractor intends to review, maintain, and document all items related to the Accessibility Plan on-site during Construction, including, but not limited to:
- (a) Signage
  - (b) Temporary Ramping
  - (c) Transit Stops
  - (d) Detour Signage
- D18.5 At minimum, the Contractor shall review the site conditions on a daily basis to ensure that all features related to the Accessibility Plan are in place. The site review is intended to correct deficiencies as a result of unforeseen events such as wind, traffic, or the general public. Deficiencies that are direct result of the Contractors actions must be corrected immediately.
- D18.6 Any changes to the Accessibility Plan must be approved by the Contract Administrator.
- D18.7 Upon request from the Contract Administrator, the Contractor shall provide records demonstrating that the site has been maintained.

- D18.8 Deficiencies as a direct result of actions by the Contractor that are not immediately corrected and/or failure to produce records that demonstrate that the site was maintained in compliance with the Accessibility Plan may result in a pay adjustment via the monthly Progress Payment. The rate of pay adjustment will be as per the following schedule:
- (a) First Offence – A warning will be issued and documented in the weekly or bi-weekly site meeting.
  - (b) Second Offence – A field instruction to immediately correct the site will be issued by the Contract Administrator.
  - (c) Third and subsequent Offences – A pay reduction will be issued in the amount of \$250.00 per instance and per day.

## **SCHEDULE OF WORK**

### **D19. COMMENCEMENT**

- D19.1 The Contractor shall not commence any Work until they are in receipt of an award letter from the Award Authority authorizing the commencement of the Work.
- D19.2 The Contractor shall not commence any Work on the Site until:
- (a) the Contract Administrator has confirmed receipt and approval of:
    - (i) evidence of authority to carry on business specified in D12;
    - (ii) evidence of the workers compensation coverage specified in C6.15;
    - (iii) the twenty-four (24) hour emergency response phone number specified in D7.2.
    - (iv) the Safe Work Plan specified in D13;
    - (v) evidence of the insurance specified in D14;
    - (vi) the contract security specified in D15;
    - (vii) the subcontractor list specified in D15.1.3;
    - (viii) the detailed work schedule specified in D17;
    - (ix) the Requirements for Site Accessibility Plan specified in D18; and
    - (x) the direct deposit application form specified in D33
  - (b) the Contractor has attended a pre-construction meeting with the Contract Administrator, or the Contract Administrator has waived the requirement for a pre-construction meeting.
- D19.3 The Contractor shall commence the Work on the Site within seven (7) Working Days of receipt of the award letter.
- D19.4 The Contractor shall not commence Part 4 of the Work as described in D3 and identified in Form B: Prices, unless prior to May 31, 2025, they have received notification from the Contract Administrator that the City has received notice of sufficient funding from Manitoba Hydro.
- D19.5 The City intends to award this Contract by May 27, 2025.
- D19.5.1 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.

### **D20. WORKING DAYS**

- D20.1 Further to C1.1(tt);
- D20.1.1 The Contract Administrator will determine daily if a Working Day has elapsed and will record their assessment. On a weekly basis the Contract Administrator will provide the Contractor with a record of the Working Days assessed for the preceding week. The



Contractor shall sign each report signifying that they agree with the Contract Administrator's determination of the Working Days assessed for the report period.

- D20.1.2 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.
- D20.1.3 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.
- D20.1.4 Saturdays and Sundays will also be considered a Working Day if the Contract Administrator approves the Contractor's request, the Contractor works on Site and the Contract Administrator deems that the Contract Administrator's staff is required on Site.

## **D21. RESTRICTED WORK HOURS**

- D21.1 Further to 3.10 of CW 1130, the Contractor shall require written permission forty-eight (48) hours in advance from the Contract Administrator for any work to be performed between 2000 hours and 0700 hours, or on Saturdays, Sundays, Statutory Holidays and or Civic Holidays.

## **D22. WORK BY OTHERS**

- D22.1 Further to C6.25, the Contractor's attention is directed to the fact that other Contractors, the personnel of Utilities and the staff of the City may be working within the project limit, approach roadway, adjacent roadways or right-of-way. The activities of these agencies may coincide with the Contractors execution of work and it will be the Contractor's responsibility to cooperate to the fullest extent with other personnel working in the area, and such cooperation is an obligation of the Contractor under the terms of Contract.
- D22.2 Work by others on or near the Site will include but not necessarily be limited to:
- (a) City of Winnipeg Geomatics Branch - Relocation, replacement, or adjustment of survey monuments.
  - (b) City of Winnipeg Traffic Signals - Signals plant installation including poles, davits, controllers, heads, and low-level flashers.
  - (c) City of Winnipeg Water & Waste – Manhole inspections, water valve inspections.
  - (d) City of Winnipeg Forestry – Tree Inspections.
  - (e) City of Winnipeg Transit – Operation of adjacent bus routes
  - (f) Winnipeg Transit Plus – Pickup and drop-off passengers.
  - (g) Manitoba Hydro Power – Street light renewals, utility manhole adjustments and safety watch.
  - (h) Manitoba Hydro Gas - Adjustment, protection of gas services or mains.
- D22.3 Further to D22.1 the Contractor shall cooperate and coordinate all activities with all parties performing required Work by Others. The Contractor must include and accommodate Work by Others identified in D22.2 or additional parties, in their construction schedule as per D17 and accommodate the necessary area on Site required for the Work by Others to complete the Work.

## **D23. SEQUENCE OF WORK**

- D23.1 Further to C6.1, the sequence of work shall comply with the following:
- D23.1.1 Providing that the Work on each street is completed in a similar order to the order that the Work was commenced in, the Contractor will be permitted to have a maximum of three (3) streets under construction at any one time. Completion of a street means that all of the

necessary concrete, asphalt including approaches and landscaping Work is completed to the satisfaction of the Contract Administrator.

D23.1.2 Where the Contractor utilizes two (2) or more crews that work independently on the same major component of the Work as identified in D3, the Contract Administrator may approve an increase to the maximum number of streets under construction at any time.

D23.1.3 Placing the topsoil and finished grading of all boulevard and median areas shall be completed prior to commencing construction of asphaltic concrete overlays, including scratch courses.

D23.2 Phase 1 and Phase 2 Reconstruction Work on Burnell Street shall not be started until after July 1, 2025 due to proximity of Greenway Elementary School and must be completed prior to September 1, 2025.

D23.3 Rehabilitation Work on Qu'Appelle shall not be started until after July 1, 2025 due to proximity of Sister MacNamara Elementary School and must be completed prior to September 1, 2025.

#### **D24. CRITICAL STAGES**

D24.1 The Contractor shall achieve critical stages of the Work in accordance with the following requirements:

(a) Burnell Street Phase 1 and 2 substantially complete prior to September 1, 2025.

D24.2 When the Contractor considers the Work associated with Burnell Street 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.

D24.3 The date on which the Burnell Street Work for Phase 1 and 2 has been accepted by the Contract Administrator as being completed to the requirements of the Contract is the date on which completion of Burnell Street Critical Stage has been achieved.

#### **D25. SUBSTANTIAL PERFORMANCE**

D25.1 The Contractor shall achieve Substantial Performance within seventy-five (75) consecutive Working Days of the commencement of the Work as specified in D19.

D25.2 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.

D25.3 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.

#### **D26. TOTAL PERFORMANCE**

D26.1 The Contractor shall achieve Total Performance within eighty (80) consecutive Working Days of the commencement of the Work as specified in D19.

D26.2 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.

- D26.3 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.

**D27. LIQUIDATED DAMAGES**

- D27.1 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) Burnell Street Critical Stage – Two Thousand dollars (\$2,000.00),
  - (b) Substantial Performance – Four Thousand dollars (\$4,000.00), and
  - (c) Total Performance – Two Thousand dollars (\$2,000.00).
- D27.2 The amounts specified for liquidated damages in D27.1 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.
- D27.3 The City may reduce any payment to the Contractor by the amount of any liquidated damages assessed.

**D28. SUPPLY CHAIN DISRUPTION SCHEDULE DELAYS**

- D28.1 The City acknowledges that the schedule for this Contract may be impacted by the Supply Chain Disruption. Commencement and progress of the Work shall be performed by the Contractor with due consideration to the delivery requirements and schedule identified in the Contract, in close consultation with the Contract Administrator.
- D28.2 If the Contractor is delayed in the performance of the Work by reason of the Supply Chain Disruption, the Work schedule may be adjusted by a period of time equal to the time lost due to such delay and costs related to such delay will be determined as identified herein.
- D28.3 A minimum of seven (7) Calendar Days prior to the commencement of Work, the Contractor shall declare whether a Supply Chain Disruption will affect the start date. The Contractor shall provide sufficient evidence that the delay is directly related to ordering of Material or Goods, production and/or manufacturing schedules or availability of staff as appropriate s.
- D28.4 For any delay related to Supply Chain Disruption and identified after Work has commenced, the Contractor shall within seven (7) Calendar Days of becoming aware of the anticipated delay declare the additional delay and shall provide sufficient evidence as indicated in D28.3. Failure to provide this notice will result in no additional time delays being considered by the City.
- D28.5 The Work schedule, including the durations identified in D24 to D26 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.
- D28.6 Where Work not previously identified is being carried over solely as a result of delays related to Supply Chain Disruption, as confirmed by the Contract Administrator, the cost of temporary works to maintain the Work in a safe manner until Work recommences, will be considered by the Contract Administrator. Where the Work is carried over only partially due to Supply Chain Disruption, a partial consideration of the cost of temporary works will be considered by the Contract Administrator.
- D28.7 Any time or cost implications as a result of Supply Chain Disruption and in accordance with the above, as confirmed by the Contract Administrator, shall be documented in accordance with C7.

## **D29. SCHEDULED MAINTENANCE**

- D29.1 The Contractor shall perform the following scheduled maintenance in the manner and within the time periods required by the Specifications:
- (a) Sod Maintenance as specified in CW 3510-R10;
  - (b) Seed Maintenance as specified in CW 3520-R7;
  - (c) Crack Sealing as specified in CW 3250-R7; and
  - (d) Reflective Crack Maintenance as specified in CW 3250-R7.
- D29.2 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**

### **D30. JOB MEETINGS**

- D30.1 Regular weekly job meetings will be held at the Site or location agreed to by the Contract Administrator and the Contractor. 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.
- D30.2 The Contract Administrator reserves the right to cancel any job meeting or call additional job meetings whenever they deem it necessary.

### **D31. PRIME CONTRACTOR – THE WORKPLACE SAFETY AND HEALTH ACT (MANITOBA)**

- D31.1 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).

### **D32. THE WORKPLACE SAFETY AND HEALTH ACT (MANITOBA) – QUALIFICATIONS**

- D32.1 Further to B13.4, the Contractor/Subcontractor must, throughout the term of the Contract, have a Workplace Safety and Health Program meeting the requirements of The Workplace Safety and Health Act (Manitoba). At any time during the term of the Contract, the City may, at their sole discretion and acting reasonably, require updated proof of compliance, as set out in B13.4.

## **INVOICES & MEASUREMENT AND PAYMENT**

### **D33. MEASUREMENT AND PAYMENT**

- D33.1 C12.2 is deleted and replaced with the following:
- C12.2 The amounts to be paid by the City to the Contractor shall be as set out in the Payment Certification. In the event the Payment Certification does not align with the Contractor's Proper Invoice and payment by the City to the Contractor is not made, or not going to be made, for the invoiced amount within 28 Calendar Days of receipt of the Proper Invoice, the City will issue a notice of non-payment to the Contractor in accordance with the BLA.

- C12.2.1 For unit price Contracts, such sums shall be determined by the Contract Administrator upon the basis of the unit prices for the various classes of the Work stated on Form B: Prices. The total amount to be paid to the Contractor for the Work will be the amount arrived at by measuring the amount of each class of the Work listed on Form B: Prices and performed in accordance with the Contract, and pricing the same, in accordance with the unit prices stated thereon.
- C12.2.2 For lump sum Contracts, such sums shall be determined by the Contract Administrator upon the basis of the lump sum price stated on Form B: Prices, if applicable, but in any event the lump sum price broken down into the percentage completed for each portion of the Work, commonly referred to as detailed prices.
- D33.2 C12.7 to C12.15 are deleted and replaced with the following:
- C12.7 By the seventh (7) Calendar Day after the end of each month, the Contract Administrator shall issue to the Contractor a progress estimate indicating its opinion of the quantity and value of Work performed during the previous month. The Contractor may use the progress estimate to form part of its Proper Invoice as support of the type and quantity of Work performed. In the event the Contractor chooses to produce its own documentation of the type and quantity of Work performed to form part of its Proper Invoice, the content shall be in accordance with C12.2 and the format of such documentation should follow that of a typical progress estimate, including all evidence and records of measurement that the Contract Administrator would require to certify payment. In either event the Contractor shall include such supporting documentation as part of its invoice.
- C12.8 If the Contractor agrees with the progress estimate provided by the Contract Administrator it should indicate that on its Proper Invoice. If the Contractor does not agree with the progress estimate provided by the Contract Administrator it should attempt to reconcile the discrepancy, which could result in a revised progress estimate to be provided by the Contract Administrator or a revised invoice by the Contractor, so that the progress estimate and the Proper Invoice align. In the event that the discrepancy is not reconciled then the Contractor should detail the items within the progress estimate that it disagrees with in order that the value on the Proper Invoice aligns with and is supported by the progress estimate with noted discrepancies.
- C12.9 Any payment made by the City to the Contractor on account of a Proper Invoice shall be less any holdback required to be made by The Builders' Liens Act, and such holdbacks or other amounts which the City is entitled to withhold pursuant to the Contract.
- C12.10 If in the Contractor's opinion the Work performed during the previous month is minimal or does not warrant an invoice, the Contractor is permitted to not submit an invoice on the condition that the Contractor advises the Contractor Administrator in writing.
- C12.11 Unless agreed to by the Contract Administrator, in writing, on an exception basis, the Contractor shall not submit invoices more frequently than monthly.
- C12.12 Any reference to payment submittals or payment processes in the NMS Sections of the Contract are deleted and replaced with the payment submittals and payment processes within Section C12 of the General Conditions, as amended by the Supplemental Conditions.

## **FINAL PAYMENT**

- C12.13 The Contractor shall indicate on its invoice if it is the final invoice for Work performed under the Contract. Payment Certification, in response to receipt of the final Proper Invoice by the Contractor, shall be subject to the following conditions:
- (a) issuance by the Contract Administrator of a certificate of Total Performance;

- (b) receipt by the City of a certificate from the Workers Compensation Board stating that full payment has been made to the Board with respect to all assessments owing.
- C12.14 Payment on account of the holdback made by the City pursuant to The Builders' Liens Act, shall be paid to the Contractor when the time for filing liens or trust claims has elapsed, unless the City is in receipt of a lien or trust claim.
- C12.15 Neither the issuance of a certificate of Total Performance nor the payment of the final Proper Invoice shall relieve the Contractor from their responsibilities either under C13 or as a result of any breach of the Contract by the Contractor including, but not limited to, defective or deficient Work appearing after Total Performance, nor shall it conclude or prejudice any of the powers of the Contract Administrator or the Chief Administrative Officer hereunder.
- C12.16 Subject to C12.17, acceptance by the Contractor of payment on account of the final Proper Invoice shall constitute a waiver and release by them of all claims against the City whether for payment for Work done, damages or otherwise arising out of the Contract.
- C12.17 If the Contractor disputes a Payment Certification related to a notice of non-payment by the City to the Contractor in accordance with the BLA, the Contractor may appeal the determination of the Contract Administrator to the Chief Administrative Officer as provided for in C21. If prior to the appeal being concluded, the Contractor gives a notice of adjudication to the City pursuant to the BLA, the appeal process will be discontinued.

## INVOICES

D33.3 Further to C12, the Contractor:

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

## D34. PAYMENT

D34.1 Further to C12, the City shall make payments to the Contractor by direct deposit to the Contractor's banking institution, and by no other means. Payments will not be made until the Contractor has made satisfactory direct deposit arrangements with the City. Direct deposit application forms are at [https://winnipeg.ca/finance/files/Direct\\_Deposit\\_Form.pdf](https://winnipeg.ca/finance/files/Direct_Deposit_Form.pdf).

## D35. FUEL PRICE ADJUSTMENT

D35.1 The Contract is subject to a fuel price adjustment which will be calculated monthly based on eligible Work completed utilizing the following mathematical formulas;

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

D35.1.1 Eligible Work will be determined in accordance with D35.5.

D35.1.2 The base fuel index (BFI) will be the retail price of fuel identified on the Submission Deadline based on latest published "Monthly average retail prices for gasoline and fuel by geography" for Winnipeg, published by [Statistics Canada, Table 18-10-0001-01](#). The BFI

is a blended rate based on 15% regular unleaded gasoline at self-service filling stations and 85% diesel fuel at self-service filling stations.

- D35.1.3 The current fuel index (CFI) based on the above blended rate will be determined for each monthly progress estimate and applied on the following progress estimate as a change order once rates are published by Statistics Canada.
- D35.1.4 A Fuel Factor (FF) rate of the monetary value of all eligible Work completed that month based on the Contract unit prices will be used to calculate the assumed apportioned cost of fuel.
- D35.2 Fuel cost adjustments may result in additional payment to the Contractor or credit to the City within the Contract by way of a monthly change order.
- D35.3 The fuel escalation or de-escalation adjustment will not be applied if the CFI is within  $\pm 15\%$  of the BFI.
- D35.4 Fuel escalation adjustments will not be considered beyond the Substantial Performance/Critical Stages except where those dates/Working Days are adjusted by change order. Fuel de-escalation adjustments will apply for Work that extends beyond the dates/Working Days specified for Substantial Performance/Critical Stages.
- D35.5 The Fuel Factor (FF) rates will be set as follows:
- (a) The Fuel Factor rate shall be set at 2.7% of the monetary value of all Work based on unit prices.
  - (b) The Fuel Factor will not apply to Part 2 identified on Form B: Prices related to Water & Waste Work.

#### **D36. ADJUSTMENTS FOR CHANGES IN LAWS, TAXES, OR TARIFFS**

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

#### **WARRANTY**

##### **D37. WARRANTY**

- D37.1 Notwithstanding C13.2, the warranty period shall begin on the date of Total Performance and shall expire one (1) years thereafter for pavement rehabilitation works , and two (2) years

thereafter for pavement reconstruction works, unless extended pursuant to C13.2.1 or C13.2.2, in which case it shall expire when provided for thereunder.

D37.2 Notwithstanding C13.2 or D37.1, the Contract Administrator may permit the warranty period for a portion or portions of the Work to begin prior to the date of Total Performance if:

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

D37.3 In such case the date specified by the Contract Administrator for the warranty period to begin shall be substituted for the date specified in C13.2 for the warranty period to begin.

## **DISPUTE RESOLUTION**

### **D38. DISPUTE RESOLUTION**

D38.1 If the Contractor disagrees with any opinion, determination, or decision of the Contract Administrator, the Contractor shall act in accordance with the Contract Administrator's opinion, determination, or decision unless and until same is modified by the process followed by the parties pursuant to D38.

D38.2 The entire text of C21.4 is deleted, and amended to read: "Intentionally Deleted"

D38.3 The entire text of C21.5 is deleted, and amended to read:

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

D38.4 Further to C21, prior to the Contract Administrator's issuance of a Final Determination, the following informal dispute resolution process shall be followed where the Contractor disagrees with any opinion, determination, or decision of the Contract Administrator ("Dispute"):

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

D38.4.1 Names and positions of Contractor representatives equivalent to the above City position levels shall be determined by the Contractor and communicated to the City at the pre-commencement or kick off meeting.

D38.4.2 As these negotiations are not an adjudicative hearing, neither party may have legal counsel present during the negotiations.

D38.4.3 Both the City and the Contractor agree to make all reasonable efforts to conduct the above escalating negotiation process within twenty (20) Business Days, unless both parties agree, in writing, to extend that period of time.



- D38.4.4 If the Dispute is not resolved to the City and Contractor's mutual satisfaction after discussions have occurred at the final escalated level as described above, or the time period set out in D38.4.3, as extended if applicable, has elapsed, the Contract Administrator will issue a Final Determination as defined in C1.1(v), at which point the parties will be governed by the Dispute Resolution process set out in C21.

## INDEMNITY

### D39. INDEMNITY

- D39.1 Indemnity shall be as stated in C17.
- D39.2 Notwithstanding C17.1, the Contractor shall save harmless and indemnify the City in the amount of twice the Contract Price or five million dollars (\$5,000,000), whichever is greater, against all costs, damages or expenses arising from actions, claims, demands and proceedings, by whomsoever brought, made or taken as a result of negligent acts or negligent omissions of the Contractor, their Subcontractors, employees or agents in the performance or purported performance of the Work, and more particularly from:
- (a) accidental injury to or death of any person whether retained by or in the employ of the contractor or not, arising directly or indirectly by reason of the performance of the Work, or by reason of any trespass on or damage to property;
  - (b) damage to any property owned in whole or in part by the City, or which the City by duty or custom is obliged, directly or indirectly, in any way or to any degree, to construct, repair or maintain;
  - (c) damage to, or trespass or encroachment upon, property owned by persons other than the City;
  - (d) any claim for lien or trust claim served upon the City pursuant to The Builders' Liens Act;
  - (e) failure to pay a Workers Compensation assessment, or Federal or Provincial taxes;
  - (f) unauthorized use of any design, device, material or process covered by letters patent, copyright, trademark or trade name in connection with the Work;
  - (g) inaccuracies in any information provided to the City by the Contractor.
- D39.3 Further to C17, The City shall save harmless and indemnify the Contractor in the amount of twice the Contract Price or five million dollars (\$5,000,000), whichever is greater, against all costs, damages or expenses arising from actions, claims, demands and proceedings, by whomsoever brought, made or taken as a result of negligent acts or negligent omissions of the City, their employees or agents in the performance of its obligation under the Contract.

## THIRD PARTY AGREEMENTS

### D40. FUNDING AND/OR CONTRIBUTION AGREEMENT OBLIGATIONS

- D40.1 In the event that funding for the Work of the Contract is provided to the City of Winnipeg by the Government of Manitoba and/or the Government of Canada, the following terms and conditions shall apply, as required by the applicable funding agreements.
- D40.2 Further to D40.1, in the event that the obligations in D40 apply, actual costs legitimately incurred by the Contractor as a direct result of these obligations ("Funding Costs") shall be determined by the actual cost to the Contractor and not by the valuation method(s) outlined in C7.4. In all other respects Funding Costs will be processed in accordance with Changes in Work under C7.
- D40.3 For the purposes of D40:
- (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.

#### D40.4 Modified Insurance Requirements

- D40.4.1 If not already required under the insurance requirements identified in D14, the Contractor will be required to provide wrap-up liability insurance in an amount of no less than two million dollars (\$2,000,000) inclusive per occurrence. Such policy will be written in the joint names of the City, Contractor, Consultants and all sub-contractors and sub-consultants and include twelve (12) months completed operations. The Government of Manitoba and their Ministers, officers, employees, and agents shall be added as additional insureds.
- D40.4.2 If not already required under the insurance requirements identified in D14, the Contractor will be required to provide builders' risk insurance (including boiler and machinery insurance, as applicable) providing all risks coverage at full replacement cost, or such lower level of insurance that the City may identify on a case-by-case basis, such as an installation floater.
- D40.4.3 The Contractor shall obtain and maintain third party liability insurance with minimum coverage of two million dollars (\$2,000,000.00) per occurrence on all licensed vehicles operated at the Site. In the event that this requirement conflicts with another licensed vehicle insurance requirement in this Contract, then the requirement that provides the higher level of insurance shall apply.
- D40.4.4 Further to D14.4, insurers shall provide satisfactory Certificates of Insurance to the Government of Manitoba prior to commencement of Work as written evidence of the insurance required. The Certificates of Insurance must provide for a minimum of thirty (30) days' prior written notice to the Government of Manitoba in case of insurance cancellation.
- D40.4.5 All policies must be taken out with insurers licensed to carry on business in the Province of Manitoba.

#### D40.5 Indemnification By Contractor

- D40.5.1 In addition to the indemnity obligations outlined in C17 of the General Conditions for Construction, the Contractor agrees to indemnify and save harmless the Government of Canada and the Government of Manitoba and each of their respective Ministers, officers, servants, employees, and agents from and against all claims and demands, losses, costs, damages, actions, suit or other proceedings brought or pursued in any manner in respect of any matter caused by the Contractor or arising from this Contract or the Work, or from the goods or services provided or required to be provided by the Contractor, except those resulting from the negligence of any of the Government of Canada's or the Government of Manitoba's Ministers, officers, servants, employees, or agents, as the case may be.
- D40.5.2 The Contractor agrees that in no event will Canada or Manitoba, their respective officers, servants, employees or agents be held liable for any damages in contract, tort (including negligence) or otherwise, for:
- (a) any injury to any person, including, but not limited to, death, economic loss or infringement of rights;
  - (b) any damage to or loss or destruction of property of any person; or
  - (c) any obligation of any person, including, but not limited to, any obligation arising from a loan, capital lease or other long term obligation;

in relation to this Contract or the Work.

#### D40.6 Records Retention and Audits

- D40.6.1 The Contractor shall maintain and preserve accurate and complete records in respect of this Contract and the Work, including all accounting records, financial documents, copies of contracts with other parties and other records relating to this Contract and the Work during the term of the Contract and for at least six (6) years after Total Performance. Those

records bearing original signatures or professional seals or stamps must be preserved in paper form; other records may be retained in electronic form.

- D40.6.2 In addition to the record keeping and inspection obligations outlined in C6 of the General Conditions for Construction, the Contractor shall keep available for inspection and audit at all reasonable times while this Contract is in effect and until at least six (6) years after Total Performance, all records, documents, and contracts referred to in D40.6.1 for inspection, copying and audit by the City of Winnipeg, the Government of Manitoba and/or the Government of Canada and their respective representatives and auditors, and to produce them on demand; to provide reasonable facilities for such inspections, copying and audits, to provide copies of and extracts from such records, documents, or contracts upon request by the City of Winnipeg, the Government of Manitoba, and/or the Government of Canada and their respective representatives and auditors, and to promptly provide such other information and explanations as may be reasonably requested by the City of Winnipeg, the Government of Manitoba, and/or the Government of Canada from time-to-time.

D40.7 Other Obligations

- D40.7.1 The Contractor consents to the City providing a copy of the Contract Documents to the Government of Manitoba and/or the Government of Canada upon request from either entity.
- D40.7.2 If the Lobbyists Registration Act (Manitoba) applies to the Contractor, the Contractor represents and warrants that it has filed a return and is registered and in full compliance with the obligations of that Act, and covenants that it will continue to comply for the duration of this Contract.
- D40.7.3 The Contractor shall comply with all applicable legislation and standards, whether federal, provincial, or municipal, including (without limitation) labour, environmental, and human rights laws, in the course of providing the Work.
- D40.7.4 The Contractor shall properly account for the Work provided under this Contract and payment received in this respect, prepared in accordance with generally accepted accounting principles in effect in Canada, including those principles and standards approved or recommended from time-to-time by the Chartered Professional Accountants of Canada or the Public Sector Accounting Board, as applicable, applied on a consistent basis.
- D40.7.5 The Contractor represents and warrants that no current or former public servant or public office holder, to whom the Value and Ethics Code for the Public Sector, the Policy on Conflict of Interest and Post Employment, or the Conflict of Interest Act applies, shall derive direct benefit from this Contract, including any employment, payments, or gifts, unless the provision or receipt of such benefits is in compliance with such codes and the legislation.
- D40.7.6 The Contractor represents and warrants that no member of the House of Commons or of the Senate of Canada or of the Legislative Assembly of Manitoba is a shareholder, director or officer of the Contractor or of a Subcontractor, and that no such member is entitled to any benefits arising from this Contract or from a contract with the Contractor or a Subcontractor concerning the Work.

**FORM J: SUBCONTRACTOR LIST**  
(See D15.1.3)

2025 LOCAL STREET RENEWAL PROGRAM: BURNELL STREET AND VARIOUS OTHER LOCATIONS

<u>Portion of the Work</u>	<u>Name</u>	<u>Address</u>
<b>SURFACE WORKS</b>		
<b>Supply of Materials:</b>		
Geogrid		
Geotextile Fabric		
Pavement Repair Fabric		
Base Course & Sub-Base		
Concrete		
Asphalt		
Topsoil and Sod		
Street Lighting		
Traffic Signals		
<b>Installation and Placement:</b>		
Geogrid		
Geotextile Fabric		
Pavement Repair Fabric		
Base Course & Sub-Base		
Concrete		
Asphalt		
Topsoil and Sod		
Street Lighting		
Traffic Signals		

(See D15.1.3)

## 2025 LOCAL STREET RENEWAL PROGRAM: BURNELL STREET AND VARIOUS OTHER LOCATIONS

[illegible]

## PART E - SPECIFICATIONS

### GENERAL

#### E1. APPLICABLE SPECIFICATIONS AND DRAWINGS

- E1.1 These Specifications shall apply to the Work.
- E1.2 *The City of Winnipeg Standard Construction Specifications* in their entirety, whether or not specifically listed on Form B: Prices, shall apply to the Work.
- E1.2.1 *The City of Winnipeg Standard Construction Specifications* is available on the Information Connection page at The City of Winnipeg, Corporate Finance, Purchasing Division website at <http://www.winnipeg.ca/matmgt/Spec/Default.stm>
- E1.2.2 The version in effect three (3) Business Days before the Submission Deadline shall apply.
- E1.2.3 Further to C2.4(d), Specifications included in the Tender shall govern over *The City of Winnipeg Standard Construction Specifications*.
- E1.3 Bidders are reminded that requests for approval of substitutes as an approved equal or an approved alternative shall be made in accordance with B7. In every instance where a brand name or design specification is used, the City will also consider approved equals and/or approved alternatives in accordance with B7.
- E1.4 The following are applicable to the Work:

<u>Drawing No.</u>	<u>Drawing Name/Title</u>	<u>Drawing (Original) Sheet Size</u>
C-0001	Cover Sheet, Drawing List, & Site Location Map	A1
C-0101	Burnell St - Asphalt Reconstruction: St. Matthews Ave to Sta 2+12.5	A1
C-0102	Burnell St - Asphalt Reconstruction: Sta 2+12.5 to Sta 3+50	A1
C-0103	Burnell St - Asphalt Reconstruction: Sta 3+50 to Ellice Ave	A1
C-0201	McGee St – Minor Rehabilitation: St. Matthews to Sta 2+12.5	A1
C-0202	McGee St – Minor Rehabilitation: Sta 2+12.5 to Sta 3+50	A1
C-0203	McGee St – Minor Rehabilitation: Sta 3+50 to Ellice Ave	A1
C-0301	McMicken St – Asphalt Reconstruction: Ellice Ave to Sta 2+00	A1
C-0302	McMicken St – Asphalt Reconstruction: Sta 2+00 to Sta 3+00	A1
C-0303	McMicken St – Asphalt Reconstruction: Sta 3+00 to Sta 4+00	A1
C-0304	McMicken St – Asphalt Reconstruction: Sta 4+00 to Sargent Ave	A1
C-0401	Langside St – Asphalt Reconstruction: Cumberland Ave to Notre Dame Ave	A1
C-0501	Qu'Appelle Ave – Major Rehabilitation: Balmoral St to Sta 1+60	A1
C-0502	Qu'Appelle Ave – Major Rehabilitation: Sta 1+60 to Kennedy St	A1
C-0601	St. Mary's Ave South Alley: Kennedy St to Edmonton Street	A1
C-0602	Kennedy St / Edmonton St Alley: Sta 1+87.5 to Sta 2+75	A1
C-0603	York Ave North Alley: Kennedy Street to Edmonton Street	A1
1-04707-DE-50000-0670 0001 00	Burnell Street Light Installation – Preliminary Drawing	A1
S-1264	Traffic Signals – Burnell St. & St. Matthews Ave.	A1
S-1818	Pedestrian Corridor – Balmoral St. & Qu'Appelle Ave.	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(s);
    - (v) Other job related items.
  - (b) Demobilization shall include, but not be limited to:
    - (i) All activities and costs for transportation of personnel, equipment, and supplies not used in the project from the site, and/or sites, and/or between sites;
    - (ii) Disassembly, removal, and site cleanup and restoration of offices, buildings, and other facilities assembled on the site and/or sites;
    - (iii) Repair of access roads, temporary haul roads, and equipment parking areas leaving the project site in the same or better condition than at the start of the project;
    - (iv) General cleanup and housekeeping needed to restore a neat and orderly project site.

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

### **MEASUREMENT AND PAYMENT**

- E2.6 The lump-sum price for the Mobilization and Demobilization bid item shall not exceed five percent (5.00%) of the total bid price for the Contract.
- E2.6.1 Further to B10, B18, 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 Pay Reduction for Accessibility Plan**

- (a) The Demobilization payment will be reduced by the number of pay adjustments incurred in accordance with D18 and as determined by the Contract Administrator.

**E2.10** Mobilization and Demobilization will be paid only once (to a maximum of 100%), regardless of the number of times the Contractor mobilizes to the site and/or sites.

**E3. GEOTECHNICAL REPORT**

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

**E4. PROTECTION OF EXISTING TREES**

**E4.1** 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.

**E4.2** All damage to existing trees caused by the Contractor's activities shall be repaired to the requirements and satisfaction of the Contract Administrator and the City Forester or their designate.

**E4.3** No separate measurement or payment will be made for the protection of trees.

**E4.4** Except as required in E4.1(c) and E4.1(e), Elm trees shall not be pruned at any time between April 1 and July 31.

**E5. TRAFFIC CONTROL**

**E5.1** Further to 3.6, 3.7 and 3.8 of CW 1130:

- (a) Where directed by the Contract Administrator, the Contractor shall construct and maintain temporary asphalt ramps to alleviate vertical pavement obstructions such as manholes and planing drop-offs to the satisfaction of the Contract Administrator. Payment shall be in accordance with CW3410.



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

- E5.2 Upon request from the Contract Administrator, the Contractor shall provide records demonstrating that the site has been maintained.
- E5.3 Further to E5.1(c) and E5.1(d) the Contractor shall make arrangements with the Traffic Services Branch of the City of Winnipeg to reinstall the permanent regulatory signs after the Contract Work is complete. The Contractor shall make arrangements to drop off the stockpiled materials to Traffic Services at 495 Archibald Street.
- E5.4 Any changes to the approved Traffic Management Plan must be submitted to the Contract Administrator a minimum of five (5) Working Days prior to the required change for approval.
- E5.5 If the Contract Administrator determines that the Contractor is not performing Traffic Control in accordance with this specification, Traffic Services may be engaged to perform the Traffic Control. In this event the Contractor shall bear costs charged to the project by the Traffic Services Branch of the City of Winnipeg in connection with the required Works.

## **E6. TRAFFIC MANAGEMENT**

- E6.1 The following is applicable to this Work:
  - (a) Appendix B Temporary Traffic Control Drawings
- E6.2 Further to 3.7 of CW 1130:
  - E6.2.1 The Contractor shall schedule construction activities to meet the following:
    - (a) At least one lane for local access traffic shall be maintained along the following streets during construction. At least one intersection on adjacent bays shall be open at a time. Intersecting streets and private approach access shall be maintained at all times.
      - (i) McGee Street – St. Matthews Avenue to Ellice Avenue
      - (ii) Qu'Appelle Avenue – Balmoral Street to Kennedy Street
    - (b) The following streets will be closed to all traffic. The Contractor shall sign the street "Road Closed" or "Road Closed – No Exit" in accordance with the Manual of Temporary Traffic Control. Pedestrian access must be maintained on one side at all times.

- (i) Burnell Street – St. Matthews Avenue to Ellice Avenue
    - ◆ The Contractor shall sign Phases 1, 2 & 3 “Road Closed” and “Road Closed, No Exit” in accordance with Figure F-0100 within Appendix B.
  - (ii) McMicken Street – Ellice Avenue to Sargent Avenue
    - ◆ The Contractor shall sign Phases 1 & 2 “Road Closed” and “Road Closed, No Exit” in accordance with Figures F-0300 and Figure F-0301 within Appendix B.
  - (iii) Langside Street – Cumberland Avenue to Notre Dame Avenue
    - ◆ The Contractor shall sign Phases 1 & 2 “Road Closed” and “Road Closed, No Exit” in accordance with Figure F-0400 within Appendix B.
  - (iv) Kennedy Street / Edmonton Street Alley – York Street to Edmonton Street
    - ◆ The Contractor shall sign Phases 1 & 2 “Road Closed” and “Road Closed, No Exit” in accordance with Figure F-0600 within Appendix B.
- E6.2.2 Lane closures on intersecting regional streets shall be reviewed with the Contract Administrator prior to submission of the lane closure request. Lane closures on regional streets shall be submitted five (5) working days in advance of requested closure.
- E6.2.3 Should the Contractor be unable to maintain an existing access to a residence or business, they 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 twenty-four (24) hours notification to the affected residence or business and the Contract Administrator, prior to disruption of access.
- E6.2.4 Pedestrian and ambulance/emergency vehicle access must be maintained at all times.

## **E7. REFUSE AND RECYCLING COLLECTION**

- E7.1 While access to refuse and/or recycling collection vehicles is restricted, on collection day(s) the Contractor shall move all of the affected property owners refuse and/or recycling materials to a nearby common area, prior to an established time, in accordance with E7.2 to permit the normal collection vehicles to collect the materials. Immediately following recycling collection the Contractor shall return recycling receptacles to the addresses marked on the receptacles.
- E7.2 Collection Schedule:

### **Burnell Street from St. Matthews Avenue to Ellice Avenue**

*Collection Day(s):* **Friday**

*Collection Time:* **7:00 A.M.to 7:00 P.M.**

*Common Collection Area:* **Back Lane Collection. Contractor to maintain access to intersecting back lanes.**

### **McGee Street from St. Matthews Avenue to Ellice Avenue**

*Collection Day(s):* **Friday**

*Collection Time:* **7:00 A.M.to 7:00 P.M.**

*Common Collection Area:* **Partial front street collection. Contractor to relocate bins to Maryland Street.**

### **McMicken Street from Ellice Avenue to Sargent Avenue**

*Collection Day(s):* **Friday**

*Collection Time:* **7:00 A.M.to 7:00 P.M.**

*Common Collection Area:* **Collection along McMicken Street. Contractor to relocate bins to Langside Street and Young Street.**

**Langside Street from Cumberland Avenue to Notre Dame Avenue.**

*Collection Day(s):* **Thursday**  
*Collection Time:* **7:00 A.M.to 7:00 P.M.**  
*Common Collection Area:* **Back lane collection. Contractor to maintain access to intersecting back lane.**

**Kennedy Street / Edmonton Street Alley from York Street to Edmonton Street**

*Collection Day(s):* **Monday, Thursday**  
*Collection Time:* **7:00 A.M.to 7:00 P.M.**  
*Common Collection Area:* **Back lane collection. Relocate collection bins to front street in vicinity of affected properties.**

E7.3 No measurement or payment will be made for the work associated with this specification.

**E8. PEDESTRIAN SAFETY**

E8.1 During the project, a temporary snow fence shall be installed along all open excavations adjacent to pedestrian facilities. The Contractor shall be responsible for maintaining the snow fence in a proper working condition. No measurements for payment shall be made for this work.

**E9. WATER OBTAINED FROM THE CITY**

E9.1 Further to 3.7 of CW 1120, the Contractor shall pay for all costs, including sewer charges, associated with obtaining water from the City in accordance with the Waterworks and Sewer By-laws.

**E10. SURFACE RESTORATIONS**

E10.1 Further to 3.3 of CW 1130, when Total 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.

**E11. INFRASTRUCTURE SIGNS**

E11.1 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

**E12. BARRIER CURB AND ARCHED GUTTER INLET FRAME, BOX AND INLET COVER**

**DESCRIPTION**

E12.1 General

- (a) This Specification shall cover the replacement of Barrier Curb and Gutter Inlet Frame and Box (AP-011) and Inlet Cover (AP-012) with Barrier Curb and Arched Gutter Inlet Frame,

Box and Inlet Covers on existing and new Catch Pits (SD-023) and Catch Basins (SD-024) for asphalt pavements.

**E12.2 Referenced Standard Construction Specifications:**

- (a) CW 2130 – Gravity Sewers;
- (b) CW 3210 – Adjustment of Pavement and Boulevard Structures; and
- (c) Appendix C – Asphalt Pavement Curb Details
- (d) Appendix D – Construction Details
  - (i) SD-220D draft (dated February 2025).

**MATERIALS**

**E12.3 Acceptable castings from a City of Winnipeg approved supplier are generally:**

- (a) TF-103-3F-A (frame)
- (b) TF-103-SI (box)
- (c) TF-103-G-A (cover)

**MEASUREMENT AND PAYMENT**

**E12.4** Measurement and pavement in accordance with Clause 4.4 of CW 2130.

**E12.5** Measurement and pavement in accordance with Clause 4.3 of CW 3210.

**E13. SUPPLY AND INSTALL WATERMAIN AND WATER SERVICE INSULATION**

**DESCRIPTION**

**E13.1** Notwithstanding 3.12 of CW 2110, this specification covers the supply and installation of insulation in roadway excavations over watermains and water services.

**E13.2 Referenced Standard Construction Specifications**

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

**E13.3 Referenced Standard Details**

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

**MATERIALS**

**E13.4 Acceptable insulation is:**

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

**E13.5 Sand Bedding:**

- (a) In accordance with CW 2030

**CONSTRUCTION METHODS**

**E13.6** Prior to the installation of any sub-base material or geotextile material, locate all existing water services. Further to SD-018, where directed by the Contract Administrator, excavate the sub-grade to allow the top of the insulation to be installed flush with the surrounding sub-grade. Install the insulation on a level surface centered over the located watermain or water service for

the full width of the roadway excavation. Install sand bedding if required to level the surface. Stockpile and dispose of excavated material in accordance with CW 3110.

- E13.7 Thickness of insulation is 100 mm ( 4"). If using 50 mm ( 2") panels 2 layers are required. Total width of insulation to be as directed by the Contract Administrator. Place sufficient full width panels to meet or exceed the specified width.
- E13.8 Place insulation panels adjacent to each other over the specified area with no gaps between panels and less than 15mm of elevation difference along the adjoining edges. Where 2" thick panels are being used, offset the top layer to prevent the panel joints from aligning with the joints in the lower layer.
- E13.9 Use full panels of insulation where possible. Where necessary cut insulation panels to obtain coverage to specified lengths. Insulation pieces shall be a minimum of dimension of 300 mm in width or length.
- E13.10 Take appropriate measures to ensure panels are not displaced when installing geotextiles and during backfilling operations.
- E13.11 Where directed install rigid insulation between manholes, catch basin and catch pit structures to protect water services from frost penetration.

#### MEASUREMENT AND PAYMENT

- E13.12 Watermain and Water Service Insulation shall be measured on an area basis and paid for at the Contract Unit Price per square metre of "Watermain and Water Service Insulation". The area to be paid for shall be the total square meters of watermain and water service insulation supplied and installed in accordance with this specification, accepted and measured by the Contract Administrator.
  - (a) Excavation of the roadway subgrade in accordance with E13.6 will not be measured for payment and will be included in the payment for "Watermain and Water Service Insulation".

#### **E14. CONSTRUCTION OF VARIOUS CURB TYPES FOR ASPHALT PAVEMENT**

##### DESCRIPTION

- E14.1 This specification covers the construction of various curb types for asphalt pavements.

##### GENERAL

- E14.2 Referenced Standard Construction Specifications and Standard Detail Drawings:
  - (a) CW 3110 – Sub-grade, Sub-base and Base Course Construction
  - (b) CW 3310 – Portland Cement Concrete Pavement Works
  - (c) CW 3240 – Renewal of Existing Curbs
  - (d) Asphalt Pavement Curb Details (Appendix C)
  - (e) Standard Detail Drawing for Inlet Isolation for Asphalt Pavements (Appendix E)

##### CONSTRUCTION METHODS

- E14.3 Further to CW 3310, the Contractor shall construct the various curb types for asphalt pavements as per Standard Detail Drawing contained in Appendix C.
  - E14.3.1 Place and compact sub-base material and base course material for roadway in accordance with the Standard Detail Drawing contained in Appendix C and Specification CW 3110.
  - E14.3.2 Construct Barrier Curb and Reversed Gutter for Asphalt Pavement (180mm reveal ht) in accordance with Standard Detail Drawing contained in Appendix C.

- E14.3.3 Construct Modified Barrier Curb with Reversed Gutter for Asphalt Pavement (180mm reveal ht) in accordance with Standard Detail Drawing contained in Appendix C.
- E14.3.4 Construct Curb Ramp for Asphalt Pavement (8-12mm reveal ht) at sidewalk ends in accordance with Standard Detail Drawing contained in Appendix C.
- E14.3.5 Place concrete utilizing slip-form paving equipment in accordance with Specification CW 3310 unless otherwise directed by the Contract Administrator.
- E14.3.6 Transverse joints will be saw cut every 3.0 meters. Transverse joints are to be saw cut to a maximum depth of 25mm.
- E14.3.7 Place and compact suitable site material as backfill behind barrier curb and reverse curb for asphalt pavement to allow for 100mm of topsoil and sod below top of barrier curb and reverse curb for asphalt pavement. Care must be taken so as to not disturb the new barrier curb and reverse curb for asphalt pavement during placing and compaction of suitable site material.
- E14.3.8 Construct Inlet Isolations for Asphalt Pavements in accordance with Appendix D – SD-220D: Curb and Gutter Inlet Isolation Detail for Asphalt Pavements (draft dated February 2025).
- E14.3.9 Arched Frame and Cover installation in accordance with E12.

#### MEASUREMENT AND PAYMENT

- E14.4 Construction of barrier curb and reverse gutter for asphalt pavement shall be measured on a length basis and paid for at the Contract Unit Price per metre of “Construction of Barrier Curb and Reversed Gutter for Asphalt Pavement”. The length to be paid for shall be the total number of meters supplied and installed in accordance with this Specification, accepted and measured by the Contract Administrator.
- E14.5 Construction of modified barrier curb with reverse gutter for asphalt pavement shall be measured on a length basis and paid for at the Contract Unit Price per metre of “Construction of Modified Barrier Curb with Reversed Gutter for Asphalt Pavement”. The length to be paid for shall be the total number of meters supplied and installed in accordance with this Specification, accepted and measured by the Contract Administrator.
- E14.6 Construction of curb ramp for asphalt pavement shall be measured on a length basis and paid for at the Contract Unit Price per metre of “Construction of Curb Ramp for Asphalt Pavement”. The length to be paid for shall be the total number of meters supplied and installed in accordance with this Specification, accepted and measured by the Contract Administrator.
- E14.7 Supply and placement of suitable site material for backfill to be paid for as per payment item “Placing Suitable Site Material”.
- E14.8 Construction of inlet isolations for asphalt pavements shall be measured and paid for at the Contract Unit Price per square meter of “Construction of 150mm Type 1 Concrete Pavement”. The area to be paid for shall be the total number of square meters supplied and installed in accordance with this Specification, accepted and measured by the Contract Administrator.
- E14.9 Supply and placement of pavement repair fabric for inlet isolation for asphalt pavements in accordance with E13.9 will not be measured for payment and will be included in the payment for “Construction of 150mm Type 1 Concrete Pavement”.

#### **E15. WORKING NEAR AC WATERMAINS**

- E15.1 Excavations within 1.0m from the centerline of AC Water Mains to the nearest edge of excavation are to be conducted without heavy vibratory equipment. Both saw cutting and removal or soft-digging are acceptable means of excavation at these locations.

**E16. HAULING AND PLACEMENT OF 50MM GRANULAR B RECYCLED CONCRETE AGGREGATE**

**DESCRIPTION**

**E16.1 General**

E16.1.1 This Specification covers the hauling from a designated supplier and installation of 50 mm Granular B Recycled Concrete Aggregate.

E16.1.2 Referenced Standard Construction Specifications:

(a) CW 3110 – Sub-Grade, Sub-Base and Base Course Construction

**MATERIALS**

E16.2 Materials will be provided to the Contractor in accordance with Tender 103-2025. Tender 103-2025 is expected to be awarded by May 1, 2025. Contact information and address will be provided once the award process is complete.

**HAULING OF MATERIAL**

E16.3 The Contractor shall obtain the 50 mm Granular B Recycled Concrete Aggregate from a stockpile location within the limits of the City of Winnipeg.

E16.4 The Customer will place orders before 4:00p.m. for each Business Day for the expected supply requirements for the following Business Day.

E16.5 The material will be available for pick up between the following hours:

(a) 0700 to 1800 from Monday to Friday

(b) 0700 to 1400 on Saturday

E16.6 Further to E17.2, material will not be available for pick up on general holidays in Manitoba.

E16.7 Requests for pick-up outside of these hours will must be made a minimum of four (4) Business Days in advance to the Contract Administrator.

E16.8 The Contractor will be provided use of the scale at the pick-up site to facilitate tare and gross vehicles weights. A printed ticket will be provided for each load.

E16.9 The supplier shall load the material into the Contractors truck/truck trailer and shall facilitate unloading when a truck has been overloaded.

**CONSTRUCTION METHODS**

E16.10 Construction methods will be in accordance with CW 3110

**QUALITY ASSURANCE TESTING**

E16.11 Quality Assurance Testing for physical properties as per CW 3110 will not be required. Field Density Testing will be required as per CW 3110.

**MEASUREMENT AND PAYMENT**

E16.12 The hauling, placing and compaction of sub-base material will be measured on a weight basis and paid for at the Contract Unit Price per tonne for the "Hauling and Placing Sub-base Material" listed here below. The weight to be paid for will be the total number of tonnes of sub-base material supplied, placed and compacted in accordance with this Specification, accepted and measured by the Contract Administrator.

E16.13 Items of Work:

(a) 50 mm Granular B Recycled Concrete

- E16.14 The weight to be paid for will be the total number of tonnes of sub-base material as measured on a certified weight scale.
- E16.15 Only material placed within the limits of excavation will be included in the payment for the "Items of Work listed for sub-base material".
- E16.16 No measurement or payment will be made for materials rejected by the Contract Administrator.

## **E17. ASPHALT PAVEMENT WORKS**

- E17.1 Asphaltic Concrete Pavement Works, Construction of Mainline Paving, Tie-ins and Approaches for Type MSI and Type MS2 type asphalt shall be in accordance with the special provision provided in Appendix E.

## **E18. CONSTRUCTION OF ASPHALT SPEED HUMPS**

### **DESCRIPTION**

- E18.1 This Specification covers the construction of asphalt speed humps.

### **GENERAL**

- E18.2 Referenced Specification E18 and 2020 Transportation Standards Manual – Standard Drawings:

- (a) Appendix D – Construction Details
- (b) Appendix E – Asphalt Pavement Works

### **CONSTRUCTION METHODS**

- E18.3 Further to Specification E18, the Contractor shall construct asphalt speed humps in accordance with SI-17 – Typical Speed Humps and Speed Tables Detail included in Appendix D.
- E18.4 Construction of Asphalt Speed Hump – Standard Drawing SI-17
- E18.4.1 The Contract Administrator will mark out the location and limits of the asphalt speed hump.
- E18.4.2 At the location of the asphalt speed hump, the existing asphalt pavement surface shall be planed to a depth of 50mm within the perimeter of asphalt speed hump.
- E18.4.3 At the location of the asphalt speed hump, the existing asphalt pavement surface shall have one uniform application of Tack Coat prior to the construction of asphalt speed hump.
- E18.4.4 Construction of asphalt speed hump will be in accordance with the Standard Drawing SI-17.
- E18.5 City of Winnipeg shall install permanent signage and pavement markings.

### **MEASUREMENT AND PAYMENT**

- E18.6 Construction of an asphalt speed hump shall be measured on a unit basis and paid for at the Contract Unit Price per unit of "Construction of Asphalt Speed Hump". The number of units to be paid for shall be the total number of units constructed in accordance with this Specification, accepted and measured by the Contract Administrator.
- E18.7 Planing of existing asphalt within the perimeter of asphalt speed hump will be considered incidental to the Work. No measurement and payment will be made within this section.



## **E19. SIDEWALK EXPANSION JOINTS**

### **DESCRIPTION**

E19.1 Further to CW 3325, CW 3235 and CW 3310, this specification covers the supply and installation of expansion joints to be constructed with concrete sidewalk.

E19.2 Referenced Standard Details

- (a) SD-228AA Sidewalk Expansion Joints (Appendix D)

### **MATERIALS**

E19.3 Use only those materials listed as Approved Products for Surface Works. The Approved Products are available in Adobe Acrobat (.pdf) format at the City of Winnipeg, Corporate Finance, Materials Management Internet site at:

[https://legacy.winnipeg.ca/finance/findata/matmgt/std\\_const\\_spec/current/Docs/Approved\\_Product\\_Surface\\_Works.pdf](https://legacy.winnipeg.ca/finance/findata/matmgt/std_const_spec/current/Docs/Approved_Product_Surface_Works.pdf)

E19.4 Expansion Joint Filler

- (a) Sidewalk expansion joints shall be a closed-cell expansion joint filler.

E19.5 Reinforcing Steel

- (a) 300mm long dowels. Dowel bars shall be plain round bars of grade 300 or better in accordance with CSA G40.21. Epoxy coating shall meet the requirements of ASTM Standard A934/A934M. Standard Specification for Epoxy-Coated Prefabricated Steel Reinforcing Bars.
- (b) The dowels shall be placed half depth of the sidewalk and aligned parallel to the centreline and surface of the slab with a maximum allowable tolerance of  $\pm 5$ mm. The dowels shall be positioned sufficiently rigid, so the dowels are held in alignment within the specified tolerance, both horizontally and vertically, until the concrete placing and setting cycle is complete.
- (c) All areas of the dowel bar with damaged epoxy coating shall be cleaned and painted to the satisfaction of the Contract Administrator.
- (d) All dowels shall be thoroughly coated with a thin uniform coating of bond breaker or lubricant such as oil, grease or synthetic materials to prevent bonding with the concrete for the length of the dowel. The bond breaker coating shall be smooth and free of voids.

### **CONSTRUCTION METHODS**

E19.6 Install sidewalk expansion joints as detailed in SD-228AA Sidewalk Expansion Joints

E19.7 Expansion joints shall be constructed and installed as indicated in the Contract Documents or shall be trimmed to match the surface of the concrete.

E19.8 The fibre joint filler shall extend the width and depth of the sidewalk. All excess materials shall be trimmed to match the surface of the concrete.

E19.9 Dowels shall be placed at 0.45m o/c spacing. Three dowels shall be installed at each expansion joint no closer than 0.15m from edge of concrete. If dowels are displaced during concrete placing operations, concrete placement shall cease and shall not resume until the displaced dowels are reset to the true design position.

E19.10 Once dowels are in position, they shall be inspected and approved by the Contract Administrator before any concrete is placed. Otherwise, the concrete will be rejected by the Contract Administrator and shall be removed by the Contractor at his own expense.

- E19.11 Expansion joints shall be installed every 15 metres when constructing new or renewing existing sidewalk. If sidewalk is constructed during cold weather concreting period, expansion joints shall be installed every 12 metres. Expansion joints shall not be installed when renewing less than 15m of sidewalk.
- E19.12 Where the Drawings call for a new slab to be tied into an existing slab along a transverse joint, the Contractor shall construct an expansion joint and install dowels into the existing slab in accordance with CW 3310 Clause 6.3.2. Following installation of dowels, the ends of the dowels that extend into the new area shall be completely coated with a thin uniform coating of approved bond breaker or lubricant.
- E19.13 When replacing heaved panels in an existing sidewalk, expansion joints shall be installed on both ends of the replaced panels.
- E19.14 Expansion joints shall not be installed when constructing monolithic curb and sidewalk.
- E19.15 Expansion joints shall be installed when installing separate concrete splash strip.

#### MEASUREMENT AND PAYMENT

- E19.16 No payment shall be made for supplying all materials and for performing all operations herein described and all other items to the Work included in this Specification.

### **E20. PROTECTION OF GEOMATIC INFRASTRUCTURE**

- E20.1 The Contractor is to acquire locates from the City of Winnipeg Geomatics Branch prior to construction activity. If any permanent infrastructure is to be disturbed, the Contractor is to notify the Contract Administrator for documentation.

### **E21. SOFT EXCAVATION TO EXPOSE UNDERGROUND UTILITIES**

#### DESCRIPTION

- E21.1 This Specification covers the soft excavation to expose underground utilities to determine the depth of the underground utility and whether it will interfere with installation of proposed Works on site.
- E21.2 These underground utilities include, but are not limited to, City of Winnipeg Traffic Signal cables, Manitoba Hydro gas mains and services, Manitoba Hydro cables/duct banks, MTS cables/duct banks, existing sewers, existing watermains and feeder mains.
- E21.3 Manitoba Hydro gas mains and services are discussed specifically in E22 for reconstruction projects.

#### MATERIALS

- E21.4 Backfill Material
- (a) Backfill material for backfill of shafts after hydro-excavation has been completed shall consist of sand in accordance with Specification CW 2030

#### CONSTRUCTION METHODS

- E21.5 Prior to commencement of any construction Works adjacent to underground utilities, the Contractor shall use soft digging or hand excavation to expose underground utilities.
- E21.6 Once the elevation of the top of pipe or duct has been determined the resulting excavation shall be backfilled with bedding sand to the elevation of existing ground.

## MEASUREMENT AND PAYMENT

- E21.7 Soft excavation to expose underground utilities will be considered incidental to the Work. No measurement and payment will be made within this section.

## E22. EXPLORATION OF EXISTING UTILITIES AND SERVICES

### E22.1 General

- (a) This specification covers the soft-dig exploration of existing buried utilities and services specifically related to Manitoba Hydro gas mains and gas services on reconstruction projects to identify potential shallow gas mains or gas services that need additional protection, adjustment, or replacement.
- (b) Further to CW 1120, the Contractor shall perform these exploratory excavations related to gas mains and gas services by soft-dig methods, or other methods suitable to the Contract Administrator, to verify and locate all buried gas mains and gas service within the limits of the reconstruction project.
- (c) Information obtained from soft-locates will help with coordinating potential Manitoba Hydro Works to minimize potential delay to roadworks.

### E22.2 Execution

- (a) The exploration of gas mains and services shall be done following all utility locates and a minimum of five (5) Working Days prior to starting pavement removal onsite.
  - (i) Each gas main or service that crosses the road under reconstruction shall be located on both sides of the roadway within 1m of the pavement.
  - (ii) The locations of each gas main and service located shall be marked with an offset stake indicating the offset to the gas main or service, the depth of the gas main or service below existing grade.
  - (iii) All holes from locates shall be covered with a protective board to prevent trips or falls.
  - (iv) The Contract Administrator will collect this information and compare this to the design sub-grade elevations to determine if any of the gas mains or gas services need to be rock wrapped or lowered in consultation with Manitoba Hydro.
  - (v) The Contract Administrator will inform the Contractor of any gas mains or gas services that need to have rock wrapping or lowering.
- (b) All proposed soft-dig locations must be clearly identified and reviewed with the Contract Administrator prior to utility exploration Work beginning.
  - (i) The Contract Administrator may request additional exploratory locations as warranted for the proposed Works.
- (c) The Contractor shall arrange for all required utility locates, safety watches and other required notifications.
- (d) The Contractor shall provide a minimum of three (3) Working Days notice to the Contract Administrator prior to conducting utility exposures.
- (e) The Contractor shall use soft-digging equipment (i.e. hydro-excavator) to expose the utility under investigation.
- (f) The Contractor is responsible for backfill and restoration of all soft-dig locations following the Work.

### E22.3 Gas Service Adjustment

- (a) Where the Contract Administrator and Manitoba Hydro determine that a gas service needs to be lowered, the Contractor Administrator will mark out the select pavement removals required for Manitoba Hydro to perform the Work in advance of starting the reconstruction project.

- (b) The Contractor shall remove the indicated areas of pavement and provide Manitoba Hydro access to the Site to perform the lowering.
- (c) If requested, the City may request that the Contractor assist Manitoba Hydro by excavating alongside the gas service that needs to be lowered using a mini-excavator or soft-digging equipment.
  - (i) If requested, the Contractor shall track time and materials through an Extra Work Order for assisting Manitoba Hydro with the gas service lowering.

**E22.4 Temporary Traffic Control**

- (a) Temporary Traffic Control shall be provided by the Contractor for any advanced work required to lower a gas service on a reconstruction project.
- (b) The Temporary Traffic Control shall be installed following the Manual of Temporary Traffic Control (MTTC).
- (c) Contact the Contract Administrator to coordinate any required lane closure requests.
- (d) Full closure of both lanes may be required to perform a required gas service lowering. If needed, the Contract Administrator will review traffic impact and advise how to proceed.
- (e) If possible, multiple gas services should be lowered simultaneously to expedite the Work while minimizing impact to access for residents.

**E22.5 Measurement and Payment**

- (a) Exploration of Existing Utilities and Services within the limits of Work shall be paid by 'Lump Sum' for each reconstruction site:
  - (i) Items of Work:
    - ◆ Exploration of Existing Utilities and Services.
- (b) All other required utility locates are incidental to the Work.

**E23. INSTALLATION OF ENERGY MITIGATION FRAMES AND COVER**

- E23.1 The Manitoba Hydro supplied energy mitigation frames and cover will be available for the Contractor to pick up from a Manitoba Hydro yard in Winnipeg.
- E23.2 The Contractor shall remove the existing energy mitigation frames and covers at the locations of utility vaults indicated on the Drawings and return the existing vault frame and covers to Manitoba Hydro's yard in Winnipeg.
- E23.3 The Contractor shall install the energy mitigation frames and covers at the locations of utility vaults indicated on the Drawings.
- E23.4 The renewal of the concrete isolation will be paid separately.
- E23.5 The energy mitigations frames and covers shall be installed in accordance with Appendix F – Manitoba Hydro Energy Mitigation Frame and Covers.
- E23.6 Payment for removal of the existing frames and covers, and installation of the new energy mitigation frames and covers shall be paid on a Unit Basis for each combined unit of energy mitigation frame and cover that is installed.
- E23.7 The following pay item for this Work shall be for inclusive of transportation, handling, removal, and installation:
  - (a) Replacement of Manitoba Hydro Vault Frame & Cover with Energy Mitigation Frame & Cover Supplied by Manitoba Hydro.
- E23.8 If Manitoba Hydro crews install the energy mitigation frame and covers, then no payment will be made for this item.

## **E24. STREET LIGHT RENEWALS**

- E24.1 The following specifications, Section E25 was provided by Manitoba Hydro and shall be read in concert with Appendix G.

## **E25. INSTALLATION OF STREET LIGHTING AND ASSOCIATED WORKS**

### **E25.1 DEFINITIONS**

LIMITS OF APPROACH means the shortest distance that is permissible between live high voltage (>750 volts) conductors or apparatus and any part of a worker's body, material or tools being handled, or equipment operated.

MANITOBA HYDRO CENTRAL STORES means Manitoba Hydro's Waverley Service and Reclaim Centre - 1840 Chevrier Blvd - Winnipeg, Manitoba

OVERHEAD FEED means an electrical supply via an overhead conductor connected between streetlight standards. Typically strung between standards on a temporary basis.

OVERHEAD SOURCE means an electrical supply from Manitoba Hydro's system. (Typically, an overhead conductor from a wooden distribution pole or a DIP/RISER located on a wooden distribution pole.)

RECLAIM material means existing material that has been removed from Manitoba Hydro's system and to be returned to Manitoba Hydro.

SCRAP material means existing material that has been removed from Manitoba Hydro's system and to be recycled/disposed of by the Contractor.

SURPLUS material means new material that has been requisitioned by the Contractor and not incorporated into the work at the end of the Contract.

WORK CLEARANCE means an ELECTRICAL AND/OR NATURAL GAS FACILITIES LOCATE form (see SAMPLE ONLY included as Appendix G Part 4) issued by each of Manitoba Hydro's Customer Service Centre (CSC) affected to permit work to commence (Permit to work).

### **E25.2 DESCRIPTION**

- E25.2.1 The work shall consist of the supply of all supervision, labour, materials (except as indicated under MATERIAL SUPPLIED BY MANITOBA HYDRO below) insurance, tools, backfill and equipment (and their maintenance), transportation, fuel, oil, meals and lodging, mobilization and de-mobilization, and warranty of workmanship as required to install and remove temporary Overhead Feeds, remove existing street light poles as required, install new street light poles and associated underground cables/conduits, all in accordance with the requirements specified in the tender documents.

### **E25.3 WORK LOCATIONS**

- E25.3.1 The proposed street light installation and removals are shown on construction drawings and are as follows:

(a) Burnell Street from St. Matthews Avenue to Ellice Avenue

### **E25.4 COORDINATION OF WORK**

- E25.4.1 The Contractor shall provide a minimum of ten (10) working days notice to Manitoba Hydro prior to the start of construction. The work shall be conducted and coordinated with Manitoba Hydro in a manner to ensure street lighting is maintained at all times for the duration of the work. The construction drawings provide the Proposed Sequence of Construction.

E25.4.2 The Contractor shall obtain Work Clearance from Manitoba Hydro's Customer Service Centre(s) (CSC) affected prior to the work commencing. No additional compensation shall be paid to the Contractor for delays obtaining Work Clearance for any reason.

E25.4.3 Manitoba Hydro's CSC will provide the Limits of Approach applicable to the Contractor on the Work Clearance form.

## E25.5 ORIENTATION

E25.5.1 Prior to the commencement of the proposed work, the Contractor's crew foremen, electricians, and other key personnel shall attend one (1) day of orientation provided by Manitoba Hydro for various operations such as cable handling, cable splicing/termination, installation of street light poles, concrete bases, luminaires and various other construction standards and procedures. The Contractor will be responsible for all costs associated with personnel salaries, travel, sustenance and overheads, etc., during training.

## E25.6 PRE-CONSTRUCTION MEETING

E25.6.1 Prior to the commencement of the work, the Contractor shall attend a pre-construction meeting with Manitoba Hydro. The agenda for this meeting shall include but not be limited to the following:

- (a) Reference the Contractor's Safe work Procedures;
- (b) Prime Contractor;
- (c) materials;
- (d) sequence of construction;
- (e) communication plan;
- (f) any training requirements & qualifications;
- (g) Drawing and Project review;
- (h) a review of the Contractor's proposed work schedule; and
- (i) any and all other topics of clarification that the Contractor and the Contract Administrator may wish to discuss.

E25.6.2 The Contractor's cost to attend this pre-construction meeting shall be incorporated into the unit prices for the work.

## E25.7 QUALIFICATIONS AND CERTIFICATION

E25.7.1 The Contractor's Crew Foreman, installers and other key Contractor's Personnel shall possess the necessary certification, licensing, training, experience and familiarity with safety rules, procedures and hazards relating to the work. Journeyman Power Line Technician (PLT), Journeyman Lineman, Journeyman Cableman or Journeyman Electricians shall be required to perform portions of this work.

E25.7.2 Journeyman Power Line Technician (PLT), Journeyman Cableman and Journeyman Lineman are also required to possess a "Limited Specialized Trade Licence – 'M-P' Licence – Power Line" issued by the Province of Manitoba.

E25.7.3 Office of the Fire Commissioner Bulletin OFC 18 – 002 dated May 23, 2018 regarding Electrician Licenses discusses the requirements for a "Limited Specialized Trade Licence – 'M-P' Licence – Power Line".

For more information contact:  
Office of the Fire Commissioner  
500-401 York Avenue  
Winnipeg, Manitoba R3C 0P8  
Tel. 204-945-3373  
Fax 204-948-2089  
Toll Free: 1-800-282-8069

[firecomm@gov.mb.ca](mailto:firecomm@gov.mb.ca)

E25.7.4 Licensed Journeyman Electricians or Journeyman PLT or Journeyman Cableman or Journeyman Lineman ARE REQUIRED for all cable handling operations included but not limited to: disconnecting cables in the handhole, installation and removal of temporary overhead feeds, installation and connection of ground rods, streetlight cable splices, termination of streetlight cables in handholds and at luminaires. The Contractor shall employ sufficient qualified personnel on its crews to conform to the Electrician's Licensing Act. The Contractor shall be prepared to provide proof of licences to Manitoba Hydro upon request.

E25.7.5 The Contractor shall assess the hazards associated with the work and have documented Safe work Procedures to perform the work. It is the Contractor's responsibility to train employees on these procedures. The Contractor shall be prepared to provide proof of training to Manitoba Hydro upon request.

## E25.8 REFERENCED STANDARD CONSTRUCTION SPECIFICATIONS

E25.8.1 In addition to these Specifications, the work to be performed by the Contractor relative to the installation and/or replacement of street lighting poles, concrete bases and associated cabling shall be in accordance with the following:

- (a) Manitoba Hydro 66kV and Below Standards;
- (b) CSA C22.3 No. 7 (latest edition);
- (c) Canadian Electrical Code (CEC) Part 1 (latest edition); and
- (d) Any other applicable codes
- (e) (collectively, the "Standards")

E25.8.2 Revisions and updates to the Manitoba Hydro 66kV and Below Standards are issued periodically and the latest issued version of the Standard will apply. For the convenience of the Contractor for bidding purposes, excerpts of the Manitoba Hydro 66kV and Below Standards have been included as Appendix G Part 1.

E25.8.3 In some cases, Municipal, Provincial or Federal laws or this Technical Specification may be more stringent than the CSA Standards. Whenever conflict exists, the Contractor shall comply with the most stringent requirements applicable at the place of the work.

## E25.9 TOOLS, EQUIPMENT AND MATERIALS

E25.9.1 The Contractor shall be required to provide all tools and equipment required for performing the specified tasks. Equipment shall be in good operating condition, shall be properly maintained using original equipment manufacturer replacement parts and shall be provided with letters of testing/inspection from the manufacturer when requested. Where the equipment is provided as a kit with multiple parts and tools, the kit shall be complete with all parts required to perform the designed task. Contractor fabricated tools or equipment will not be accepted for use.

E25.9.2 The Contractor shall obtain the following specific Electrical Equipment including but not limited to:

- (a) Compression tool or tools and associated dies to perform compressions to a maximum size of 1/0 Al (MD-6 compression tools shall not be used).
- (b) Approved compression tools are:

Manufacture	Type	Model No.	Range
Burndy	In-line, battery	PATMD68-14V	350 Kcmil AL
Cembre	In-line, battery	B54Y (06V081E)	4/0 AWG AL
Burndy	Pistol, battery	BUR PAT60018V	350 Kcmil AL

E25.9.3 Dies shall be of the type shown in Standard CD210-21 and CD 210-24 only, must have identical markings, and compression tool die must match die number stamped on connector.

- (a) Modiewark Model #4444 or Fluke 1AC-II Volt Alert potential Indicator
- (b) Voltage meter – Fluke model #T3C
- (c) Insulated wire cutters – used for cutting cable ends square.

E25.9.4 Alternative equipment manufacturers may be considered upon request by the Contractor and shall be approved for use by Manitoba Hydro prior to use.

E25.9.5 Manitoba Hydro may reject any tools or equipment that do not appear to be in good condition or fail to successfully provide the required function.

#### E25.10 MATERIAL SUPPLIED BY MANITOBA HYDRO

E25.10.1 Manitoba Hydro shall supply all street light poles, concrete bases, breakaway bases, luminaires, street light arms, ground rods, compression sleeves, grommets, nuts, electrical cables, conduits, relays, cable guards, Gel-caps and all other materials noted in the Standards. The Contractor shall sign receipts indicating the location on which the materials are to be used. The material shall be picked up by the contractor from the following locations:

E25.10.2 Manitoba Hydro Central Stores (contact personnel will be provided to the successful contractor).

E25.10.3 Materials requested will be supplied to the Contractor by Manitoba Hydro upon presentation of Manitoba Hydro's Stores Material Order Form. The Contractor shall assume all responsibilities for the loading, unloading, transportation, proper handling, secure storage and working of the materials and shall make replacements at its own expense in case any material is damaged, stolen or lost due to improper handling, storage or poor workmanship.

E25.10.4 The Contractor shall, at the time of materials release, check and confirm the quantity of materials. Shortages, discrepancies, or damages to materials shall be immediately reported in writing to Manitoba Hydro.

E25.10.5 After commencing performance of the work, the Contractor shall continually monitor all material required for the timely completion of the work and shall report additional material requirements to Manitoba Hydro a minimum of 72 hours prior to materials being required to perform the work. No additional compensation shall be paid as a result of delays due to material shortages where additional material requirements were not reported a minimum of 72 hours prior to being required for the work on an active project.

#### E25.11 MATERIAL SUPPLIED BY CONTRACTOR

E25.11.1 The Contractor shall be responsible to furnish gravel, sand, ¾" down limestone, ¼" down limestone, protective hose (i.e. typically 2" fire hose), duct seal and pit-run material for backfilling around street light poles and around cables as per the Standards. The cost of furnishing the above listed materials shall be incorporated into the unit prices for the work.

#### E25.12 SURPLUS, RECLAIM AND SCRAP MATERIAL

E25.12.1 Upon completion of the work, the Contractor shall, at its own expense, deliver to Manitoba Hydro Central Stores, all Surplus materials furnished by Manitoba Hydro and not used in the work, regardless of the location of said material at that time.

E25.12.2 In addition, the Contractor shall, at its own expense, deliver to Manitoba Hydro Central Stores all Reclaim materials from the work specifically HPS luminaires. Manitoba Hydro shall be responsible for the proper disposal of Reclaim HPS luminaires. The HPS bulb shall remain installed and unbroken in the Reclaim luminaire. The Contractor shall handle the Reclaim luminaires with care and shall avoid breaking the bulb or refractor.



E25.12.3 Manitoba Hydro's preference is to recycle as much Scrap Material as practicable. The Contractor is responsible to remove the Scrap Material, transport to the recycler or Manitoba Hydro approved disposal site, pay for any disposal fees and may retain any recycling value.

#### E25.13 DE-ENERGIZATION AND LOCKOUT

E25.13.1 **Manitoba Hydro** - Where a standard is supplied from an Overhead Source, Manitoba Hydro's staff shall be responsible to disconnect and isolate the street light standard or standards between the standard and Overhead Source. Some street light standards may be temporarily fed from an Overhead Source. This Overhead Source shall be disconnected and removed by Manitoba Hydro staff prior to commencing with the work. The streetlight circuits will not be Locked Out by Manitoba Hydro.

E25.13.2 **The Contractor** - The Contractor shall assess the hazards associated with the work and employ its own Safe Work Procedure for the work to be performed. The Contractor's Safe Work Procedure shall include provisions that the street light circuits will not be Locked Out by Manitoba Hydro. The Contractor's Safe Work Procedure shall achieve Lock Out or techniques equivalent to Lock Out.

E25.13.3 The Contractor shall complete a job planning form (an example is included as Appendix G Part 5) on a daily basis before any work commences and provide Manitoba Hydro with copies of the job plans if requested.

#### E25.14 TEMPORARY OVERHEAD FEEDS

E25.14.1 Manitoba Hydro in consultation with the Contractor will determine if temporary lighting will be provided by the existing street lights or from the new street lights.

E25.14.2 When using the existing poles for temporary lighting, Manitoba Hydro shall remove an Overhead Source in accordance with DE-ENERGIZATION AND LOCKOUT section above, prior to the Contractor installing a #4 duplex overhead conductor between the existing poles. The #4 duplex overhead conductor will normally be attached to the tenon of the davit arm near the luminaire with a pre-form grip. Older poles may require a spool insulator be attached to the pole using a pre-form grip to support the #4 duplex overhead conductor. A short length of 2C/#12 copper conductor is connected to the terminals of the luminaire brought out and connected to the #4 duplex overhead conductor. The final span to the Overhead Source shall be installed by Manitoba Hydro.

E25.14.3 When using the new poles for temporary lighting, the Contractor shall install the new bases, poles and #4 duplex overhead conductor. The #4 duplex overhead conductor will be attached to the tenon of the davit arm near the luminaire with a pre-form grip. A short length of 2C/#12 copper conductor is connected to the terminals of the luminaire brought out and connected to the #4 duplex overhead conductor. The final span to the Overhead Source shall be installed by Manitoba Hydro.

E25.14.4 All material used to provide the temporary overhead feed shall be returned to Manitoba Hydro. Care shall be taken to coil and tag Reclaim conductor for reuse. If used, insulators shall be handled carefully to prevent breakage.

#### E25.15 SAFE EXCAVATION

E25.15.1 The work shall be performed in accordance with the requirements of Manitoba Hydro's Safe Excavation and Safety Watch Guidelines (latest revision) included as Appendix G Part 2 and Manitoba Workplace Safety and Health Regulation 217 latest revision.

#### E25.16 SAFE HANDLING

E25.16.1 The Contractor shall apply handling techniques in accordance with Manitoba Workplace Health and Safety Regulation 217 (latest revision).

#### E25.17 ELECTRIC CABLES AND CONDUITS

- (a) The Contractor shall use diligent care and proper equipment in handling of all cables, so as not to injure the jacket and avoid gouging, kinking, scratching or abrading the cables. If any material is damaged to any extent, the Contractor shall repair the damages at its own expense, in a manner approved by Manitoba Hydro or will be charged the full cost of the damaged items.
- (b) Cable reels shall not be dropped and must be handled and placed/stored in an upright position at all times and shall not be laid flat for any purpose or reason. Cable reels shall be adequately supported on hard surface to prevent the reel from sinking into the ground that can cause undue stress on the cables. Cable reels should be inspected for damages prior to use. If a cable reel is found to be defective, such defect shall be reported immediately to Manitoba Hydro.
- (c) The Contractor shall place all material and string the cables in such a manner as to cause the least interference with normal use of the land, street or roadway. All material shall be unloaded in a manner to preserve its condition, prevent loss and/or theft and permit easy access for Manitoba Hydro's inspection.
- (d) The Contractor shall provide Manitoba Hydro's inspector sufficient opportunity, in the sole discretion of Manitoba Hydro, to inspect the work.

#### E25.18 PRECAST CONCRETE BASES

- E25.18.1 The Contractor shall handle, store, transport and unload the precast concrete bases in a manner to prevent damage to the threaded bolts and conduit casing.
- E25.18.2 Precast Concrete Bases are extremely heavy. Approximate weight of pre-cast concrete bases are found in the Standards. The Contractor shall only use equipment rated for such weight.

#### E25.19 STREET LIGHT POLES AND ARMS

- E25.19.1 The Contractor shall handle, store, transport, and provide proper load securement for the poles and arms in a manner to prevent damage.

#### E25.20 LUMINAIRES

- E25.20.1 The Contractor shall handle, store, transport and unload the luminaires in their original packaging and in a manner to prevent damage.

#### E25.21 SMALL MATERIAL

- E25.21.1 Photo electric cells, shorting caps, shims, nut covers and associated supplies shall be kept in a suitable warehouse provided by the Contractor at its own expense. Photo electric cells shall be transported and stored in such a manner as to prevent breakage.

#### E25.22 CARE OF MATERIALS

- E25.22.1 The Contractor shall assume all responsibilities of all the materials and shall replace, at its own expense, any materials damaged, stolen or lost due to improper handling or poor workmanship.

#### E25.23 WIRE AND CABLE REEL STORAGE

- E25.23.1 Cable reels shall be stored with the flanges upright and resting on a hard surface. At temporary storage sites where the soil may be soft, preservative-treated plywood sheets may be used to keep the flanges from sinking into the ground.
- E25.23.2 If cable reels must be pancaked or stored on their side in vertical racks, do not lift the reel by the top flange. Spacers (two 2 X 4s placed wide side up) should be placed under the bottom flange and between the reels in order to create a space to insert the forks and lift the reels without damaging the cable.

## E25.24 REEL HANDLING

- E25.24.1 When off-loading reels from a truck, reels shall be lowered using a hydraulic gate, hoist or forklift truck. When a reel is rolled from one point to another, care must be taken to see that the reel does not straddle objects such as rocks, pipes, curbs or wooden blocks which could damage the cable or protective covering. A reel should always be rolled on hard surfaces to avoid sinkage and in the opposite direction to the cable wraps to ensure that the reel is rolled in such a direction as to tighten the cable on the reel.
- E25.24.2 When using a hoist, install a mandrel through the reel arbour hole and attach a sling. Use a spreader bar approximately 6 inches longer than the overall reel width placed between the sling ends just above the reel flanges. This will prevent bending of the reel flanges and damage to the cable.
- E25.24.3 If a forklift is used to move a reel, the reel is to be approached from the flange side. Position the forks such that the reel is lifted by both reel flanges. The lift forks shall not contact the cable.
- E25.24.4 Returnable reels shall be returned promptly to Manitoba Hydro Central Stores and in no case later than three (3) days after the completion of the work unless otherwise mutually agreed between the Contractor and Manitoba Hydro.

## E25.25 PRESSURIZED WATER/VACUUM EXCAVATION

- E25.25.1 Pressurized water/vacuum excavation (PW/VE) shall be used to daylight all buried utilities and structures where excavation by other mechanical means would be expected to provide a physical risk to that utility or structure.
- E25.25.2 The work shall be performed in accordance with the requirements of Manitoba Hydro's Safe Excavation and Safety Watch Guidelines (latest revision) included as Appendix G Part 2.

## E25.26 REMOVAL STREET LIGHT POLE FROM EXISTING BASE

- E25.26.1 This shall include all work required to remove a street light pole from an existing base as set forth in this Technical Specification. The pole may be on an existing precast concrete base, steel power installed screw base or poured in place concrete base.
- E25.26.2 The Contractor shall furnish all labour, supplies and materials (except as indicated in the Section "MATERIAL SUPPLIED BY MANITOBA HYDRO") necessary for the removal of the street light pole from the existing base. Care shall be taken to preserve the luminaire. The luminaire shall be reinstalled on the new street light pole or returned to Manitoba Hydro's stores as instructed by the Manitoba Hydro.
- E25.26.3 The Contractor shall be responsible to transport all Surplus and Reclaim materials to Manitoba Hydro Central Stores and transport and dispose of all Scrap material as set forth in this Specification.

## E25.27 REMOVAL OF BASE AND DIRECT BURIED STREET LIGHT POLE

- E25.27.1 This shall include all excavation, whether by auger, pressurized water/vacuum excavation, by hand, or by other methods which may be necessary to remove a base or direct buried street light pole. The base may be poured in place concrete, steel power installed or precast concrete.
- E25.27.2 The Contractor shall be responsible to transport all Surplus and Reclaim materials to Manitoba Hydro Central Stores and transport and dispose of all Scrap material as set forth in this Specification.
- E25.27.3 The Contractor is responsible to supply all backfill material as specified in the Standards and carry out all backfill, compacting and leveling of all excavations and voids for removed bases and direct buried street light poles so as to be ready for top soil and seed or sod or as directed by Manitoba Hydro.

## E25.28 INSTALLATION OF FOUNDATION - CONCRETE BASE

- E25.28.1 This shall include all excavation, whether by auger, pressurized water/vacuum excavation, by hand, or by other methods which may be necessary to replace or install a concrete base as set forth in this Specification.
- E25.28.2 The Contractor shall furnish all labour, supplies and material (except as indicated in the Section "MATERIAL SUPPLIED BY MANITOBA HYDRO") necessary to install a new or replace a concrete base. Excavation for the precast concrete base shall be to a diameter and depth specified in Standard CD 300-6. All excess material is to be removed by the Contractor.
- E25.28.3 The concrete base shall be set on a bed of  $\frac{3}{4}$ " down limestone. The concrete base backfill material shall be compacted in lifts no more than 150 mm. Backfill material shall be  $\frac{3}{4}$ " down limestone. Compacting of backfill material shall be done using a hydraulic tamper. Alternative tamping methods shall be approved by Manitoba Hydro. Underground cables entering the concrete base shall be protected by a length of protective hose supplied by the Contractor and a layer of sand surrounding the cables to protect it from the limestone. The concrete base shall be installed level in all 4 directions. Final grade must be established prior to installing the concrete bases.
- E25.28.4 The completed backfill shall be at least equal in compaction to undisturbed soil, as required by the Municipal authorities or elsewhere in this Specification. The Contractor shall level all excavations.
- E25.28.5 Should settlement occur in the excavation and cause a depression in the surface, the Contractor shall repair the surface. Placing of additional backfill material due to settlement shall be at the Contractor's expense.
- E25.28.6 The concrete base shall be oriented in the proper direction to allow the easy entrance of the underground cables into the plastic pipe preinstalled in the concrete base. Care shall be taken to prevent damage to the insulation or jacket of the conductors. The cable shall be left long enough to extend one (1) metre beyond the top of the hand hole.

## E25.29 BASE MOUNTED STREET LIGHT POLES

- E25.29.1 This shall include all work required to install the street light pole on the concrete base as set forth in this Specification.
- E25.29.2 The Contractor shall furnish all labour, supplies and material (except as indicated in the Section "MATERIAL SUPPLIED BY MANITOBA HYDRO") necessary for the installation of the pole (straight shaft or davit) on the concrete base.
- E25.29.3 Unless otherwise specified on the construction drawings, the Contractor shall orient the poles so that the hand hole is on the left side of the pole when viewed from the road. A worker should be able to see oncoming traffic when working in the hand hole.
- E25.29.4 The Contractor shall level the street light pole in all 4 directions. Leveling shims may be used.
- E25.29.5 Tightening of bolts shall be performed in a manner that brings the surfaces up evenly. All nuts shall be tightened and torqued in accordance with Standard CD 300-9. The Contractor shall install the nut covers included with the pole.
- E25.29.6 Unless otherwise specified, excess underground cable and 2C-12 wire shall be left inside the hand hole with the hand hole cover loosely installed.
- E25.29.7 Existing street light poles may have street signs attached. The Contractor shall remove the signs from the existing pole and temporarily reattach the signs to the new pole. The Contractor shall notify Manitoba Hydro of the location where the signs have been removed.

## E25.30 LUMINAIRES AND ASSOCIATED WIRING

- E25.30.1 The Contractor shall furnish labour, supplies and material (except as indicated in the Section "MATERIAL SUPPLIED BY MANITOBA HYDRO") necessary to install the

luminaire and associated wiring. Unless otherwise specified, the luminaire shall be installed with a tilt of zero (0) degrees. The Contractor shall install a length of 2 conductor No. 12 gauge (2C-12) wire from the terminals of the luminaire, through the arm (if applicable), down the pole to the hand hole. One (1) metre of 2C-12 wire shall be left at the hand hole. Impact equipment (air or electric) shall not be used to tighten luminaire mounting bolts. The Contractor shall be liable for damage due to over tightening.

E25.30.2 The Contractor shall verify the luminaire voltage matches the source voltage as shown on the construction drawings. If luminaire voltage does not match the source voltage, the Contractor shall re-wire the luminaire in accordance with the wiring diagram provided.  
NOTE: Not applicable for LED luminaires.

E25.30.3 As specified on the construction drawings, the luminaire will require either a photo electric cell (PEC) or shorting cap installed. When installing the PEC the eye shall be oriented north. The Contractor shall also install the appropriate wattage bulb in the luminaire.  
NOTE: Bulb installation not applicable for LED luminaires.

#### E25.31 BREAK AWAY BASES

E25.31.1 Break away bases shall be installed in accordance with Standard CD 300-10. The height of the concrete base above grade shall not exceed 50mm. The surface of the concrete base shall be flat and level. A reaction plate shall be installed between the concrete base and the break-away base.

E25.31.2 The Contractor shall torque the couplers in accordance with Standard CD 300-10. Impact tools shall not be used to tighten or torque couplers or nuts associated with a break away base.

#### E25.32 SPLICING/CONNECTING CABLES

E25.32.1 The electric cable shall be spliced/terminated as per Standards CD 215-12, CD 215-13, CD 310-1, CD 310-4, CD 310-9 and CD 310-10 with the exception that the Contractor will use a GELCAP-SL-2/0 splice kit (See Appendix G Part 3). Termination in the hand hole may include the installation of an inline fuse holder.

E25.32.2 The Contractor shall furnish all labour, supplies and material (except as indicated in the Section "MATERIAL SUPPLIED BY MANITOBA HYDRO") necessary to splice/terminate the street light conductor(s).

#### E25.33 EXCAVATION

E25.33.1 The Contractor shall furnish all labour, supplies and material (except as indicated in the Section "MATERIAL SUPPLIED BY MANITOBA HYDRO") necessary for the completion and maintenance of grade and line of the street light cables and conduit including water control if found to be necessary. The trench shall be graded to conform to the street light cables and conduit so that the street light cables and conduit rest firmly on a smooth surface throughout its length. All stones or other objects which, in the opinion of Manitoba Hydro might damage the street light cable jacket and conduit shall be removed. Where the presence of rock or other condition prevent a satisfactory bed for the cables, 150 mm of well-tamped, clean soil or ¼" down crushed limestone shall be placed in the bottom of the trench. In this case, the spoil bank from trenching operations shall not be allowed to fall into the trench or mix with the soil to be used in backfilling the trench. Loose debris or foreign matter and the spoil bank shall be placed so as not to hinder drainage, damage property, or obstruct traffic.

E25.33.2 Trenches shall be dug to such a depth that will provide a minimum cover of 600 mm from final grade in sodded areas and 1000 mm in roadways in accordance with Standard CD 305-1.

#### E25.34 LAYING CABLES

E25.34.1 Cables are to be lowered in the trench in an orderly fashion so as to maintain a consistent path and straight alignment. All cables shall be lowered in a continuous run (NO

SPLICING) and in accordance with the construction drawings; and shall maintain the necessary separation, where required. All cables shall be of continuous runs and capped and sealed if they are not being installed in the pole at that time. Cables shall not be dragged over paved surfaces.

- E25.34.2 Once a cable is cut its ends must be sealed immediately with an approved and appropriately sized, heat shrink or cold shrink sealing cap to prevent moisture ingress unless the cable is being installed in the pole at that time.
- E25.34.3 During the removal of the cable, the reels shall be placed on jacks, stands or trailers with a bar through the arbour holes which will allow the reel to be turned easily, and the cable to be paid out. Cables can be paid out from the bottom or the top of the reel. Cable in coils shall be handled in a similar manner. This can be achieved by supporting the coil in a vertical plane and rotating it by hand as the cable is carefully uncoiled. The cable shall never be pulled over the flange of a reel, or pulled off the side of a coil, since this will introduce a twist in the cable.
- E25.34.4 During installation, under no circumstance is the cable to be subjected to a bending radius tighter than that detailed in the Standards.
- E25.34.5 Where specified in the Standards or on the construction drawings, the Contractor shall install the street light cable in a conduit.

#### E25.35 INSTALLING CONDUIT AND CABLE BY BORING (HORIZONTAL DIRECTIONAL DRILLING)

- E25.35.1 The Contractor shall dig the approaches and openings necessary to install boring equipment, and the boring equipment used shall be of such a nature as to minimize the opening size required. The boring equipment shall produce a straight hole without unnecessary dips or bends. The bore hole shall be only slightly larger than the outside diameter of the conduits or cables to minimize possible settlement. Cables and conduits shall be pulled in with pulling eyes or using a kelly grip in a manner so as to guard against damage.
- E25.35.2 During construction as the drill bit crosses each existing facility a lookout shall be assigned by the Contractor to visually confirm the drill bit is maintaining a minimum 300 mm clearance from the existing facility all in accordance with Manitoba Hydro Safe Excavation and Safety Watch Guidelines (latest revision) included as Appendix G Part 2. Maximum pulling tensions on any streetlight cable shall be limited to 2.9 kN/0.65 kips.
- E25.35.3 Drilling fluids and associated waste materials shall be disposed of in a manner that minimizes environmental effects.
- E25.35.4 The Contractor shall properly compact the backfill material and will be responsible for placing additional material should settlement occur for the duration of the warranty period.

#### E25.36 BURIED UTILITY CROSSINGS

- E25.36.1 All buried obstructions are not necessarily shown on the reference drawings and the locations of those indicated are approximate only.
- E25.36.2 The Contractor shall determine the location of all buried obstructions and shall notify the appropriate authorities and obtain all necessary permits prior to excavation, trenching and directional drilling near or across such obstructions. All buried obstructions where the new buried cable route crosses other utilities including but not limited to gas, water, sewer, telephone and electric lines shall be exposed as per each utilities guidelines by the Contractor, including the use of Pressurized Water/Vacuum Equipment (PW/VE) where necessary. Should any damage occur to such lines during the course of the work, the Contractor shall be responsible for the damage and the costs of repairs to buried obstructions caused by its operations and shall fully indemnify the City of Winnipeg and Manitoba Hydro from and against all claims arising out of such damage. Manitoba Hydro Safe Excavation and Safety Watch Guidelines (latest revision) included as Appendix G Part 2 shall be followed when crossing natural gas pipelines and electrical cables by the directional boring method.

E25.36.3 The PW/VE technique, used to expose underground plant in certain conditions, must be performed in accordance with each utility's requirements, including but not limited to Manitoba Hydro, Manitoba Telecom Services, Shaw Cable, etc. PW/VE costs that the Contractor will incur during the work must be factored into the Contractor's bid prices. The Contractor shall not be entitled to extra compensation for the use of PW/VE on the work.

E25.36.4 The Contractor shall be responsible to supply all backfill material and carry out all backfill, compacting and leveling of all excavations so as to be ready for topsoil and seed or sod or as directed by Manitoba Hydro.

#### E25.37 BENDING CABLES/CONDUITS AND INSTALLATION INTO STANDARDS

E25.37.1 It is desired to reduce to a minimum the required number of bends and to lay the cables/conduits to conform to the contour of the ground and maintain a normal covering. This shall be accomplished by cutting the trench slightly deeper in approaches to road crossings and drainage ditches. It is intended that the Contractor shall eliminate unnecessary bending by operating the trenching machine at various depths rather than by finishing grading the trench by hand whenever practical.

E25.37.2 Sharp bends of the cables/conduits shall be avoided at all times. All bends shall meet the requirements set out in this Specification. If excessive bending was exerted on any cable, the cable shall be replaced at the Contractor's cost. During installation, under no circumstance is the cable to be subjected to a bending radius tighter than that detailed in the Standards. At street light poles the Contractor shall install the ends of the cables into the plastic pipe preinstalled in the concrete base. Care shall be taken to prevent damage to the insulation or jacket of the conductors. Underground cables entering the concrete base shall be protected by a length of protective hose supplied by the Contractor and by a layer of sand surrounding the cables to protect it from the limestone. The cable shall be left long enough to extend one (1) metre beyond the hand hole. The street light cable in the trench shall be installed in conduit for mechanical protection and the ends sealed with duct seal supplied by the Contractor. Care shall be taken to prevent damaging the cable where it exits the conduit. The conduit shall only be installed into the concrete base if conduit sizes make it practicable.

E25.37.3 Unless otherwise directed, excess underground cable and 2C-12 wire shall be left inside the hand hole with the hand hole cover loosely installed.

#### E25.38 BACKFILL

E25.38.1 All backfilling material within 300 mm of the cables/conduits shall be clean, free of sod, vegetation, organic material, stones or other debris, and of a consistency as to not create significant voids or air spaces around the cables/conduits. Other backfilling material shall be free of stones greater than 150 mm on their maximum dimension. Where cinders or very acid soil are encountered or where gravel or incompressible fill is required by Municipal authorities, ¼" down crushed limestone shall be placed all around the cables for a depth of at least 300 mm. The completed backfill shall be at least equal in compaction to undisturbed soil or as directed by Manitoba Hydro. Backfill material is to be placed and compacted in lifts not exceeding 300 mm. All excess material is to be removed by the Contractor.

E25.38.2 Tamping or flushing methods must be used where necessary to give the required compaction. Where tamping is used, hand tampers shall be used to at least 300 mm above the cable before machine tamping may be used. The Contractor shall level all excavations so as to be ready for topsoil and seed or sod or as directed by the Manitoba Hydro. Should settlement occur in the excavation and cause a depression in the surface, the Contractor shall repair the surface to the satisfaction of the Manitoba Hydro at the Contractor's cost.

E25.38.3 Excavations remaining where poles have been removed shall be backfilled with spoil, pit run gravel or ¾" down limestone and compacted in lifts of 150mm as directed by Manitoba Hydro. The top 300 mm of the excavation shall be backfilled with topsoil.

E25.38.4 Excavations remaining where utility crossings have been exposed shall be backfilled with sand or clean spoil and compacted in lifts of 150mm. The top 300 mm of the excavation shall be backfilled with topsoil.

E25.38.5 Backfill of all excavations shall be in accordance with City of Winnipeg Standard Construction Specification CW 2030 (latest revision), to the satisfaction of the authority having jurisdiction and Manitoba Hydro.

#### E25.39 DEFECTIVE WORK & WARRANTY

E25.39.1 If any portion of the work fails to comply with the requirements of this Specification, fails within the Warranty period, or if the final tests prove or indicate the existence of any fault or defect in the work, or any part thereof, Manitoba Hydro may forthwith re-execute or make good the faulty or defective work or alter the same to make it comply with requirements of the Specification at the Contractor's expense. Manitoba Hydro shall give the Contractor notice together with particulars of such failure, fault or defect, Manitoba Hydro's cost to re-execute or make good the faulty or defective work and the Cost shall be deducted from the Contract.

E25.39.2 At the completion of the work for each location, Manitoba Hydro shall prepare and issue a Network Commissioning Report, a sample of which is included as Appendix G Part 6, to the Contractor. The Network Commissioning Report shall be dated indicating the commencement of the Warranty period for the work performed at the location.

#### E25.40 AS-BUILT DRAWING

E25.40.1 The Contractor shall provide an as-built drawing or mark-up drawing to Manitoba Hydro which accurately displays the "as-built" location of the buried street light cables, conduits and street light davits. Any changes of these items shall be clearly dimensioned to property line, and/or the original proposed location.

E25.40.2 Additional information to be included on the drawing, at each davit location: luminaire manufacturer, manufacturing date, wattage and serial number, along with the corresponding serial number of the davit upon which it is installed. As-built drawing submissions shall include the date the drawing was completed, name of the drafter and drawing reviewer.

E25.40.3 As-Built drawing submission package shall be received by Manitoba Hydro for review and acceptance prior to final energization of any newly installed infrastructure.

#### E25.41 MEASUREMENT AND PAYMENT

E25.41.1 Removal of 25' to 35' street light pole and precast, poured in place concrete, steel power installed base or direct buried including davit arm, luminaire and appurtenances

- (a) This pay item will be measured on a unit basis and paid for at the Contract Unit Price per unit for "Removal of 25' to 35' street light pole and precast, poured in place concrete, steel power installed base or direct buried including davit arm, luminaire and appurtenances". The number of units to be paid for at the Contract Unit Price shall be verified and accepted by Manitoba Hydro. The Price shall be payment in full for performing all operations herein described including removal of the pole, base, luminaire, appurtenances, use of pressurized water/vacuum excavation, transportation of Reclaim, Surplus and Scrap material, payment of associated disposal fees and all other items incidental to the work included in the Specification.

E25.41.2 Removal of 45' street light pole and precast, poured in place concrete, steel power installed base or direct buried including davit arm, luminaire and appurtenances

- (a) This pay item will be measured on a unit basis and paid for at the Contract Unit Price per unit for "Removal of 45' street light pole and precast, poured in place concrete, steel power installed base or direct buried including davit arm, luminaire and appurtenances". The number of units to be paid for at the Contract Unit Price shall be verified and accepted by Manitoba Hydro.



The Price shall be payment in full for performing all operations herein described including removal of the pole, base, luminaire, appurtenances, use of pressurized water/vacuum excavation, transportation of Reclaim, Surplus and Scrap material, payment of associated disposal fees and all other items incidental to the work included in the Specification.

- E25.41.3 Installation of Conduit and #4 AL C/N or 1/0 AL Triplex Streetlight Cable in Conduit by Open Trench Method
- (a) This pay item will be measured on a linear metre basis and paid for at the Contract Unit Price per linear metre for "Installation of Conduit and #4 AL C/N or 1/0 AL Triplex streetlight cable in Conduit by open trench method." The number of meters to be paid for at the Contract Unit Price shall be measured and accepted by Manitoba Hydro. The Price shall be payment in full for performing all operations herein described including installation of the conduit, pulling cable into the conduit, backfilling the trench, buried utility crossings, use of pressurized water/vacuum excavation and all other items incidental to the work included in the Specification.
- E25.41.4 Installation of 50 mm Conduit by Boring Method complete with Cable Insertion (#4 AL C/N or 1/0 AL Triplex)
- (a) This pay item will be measured on a linear metre basis and paid for at the Contract Unit Price per linear metre for "Installation of 50 mm conduit or conduits by boring method complete with cable insertion (#4 AL C/N or 1/0 AL Triplex)." The number of meters to be paid for at the Contract Unit Price shall be measured and accepted by Manitoba Hydro. The Price shall be payment in full for performing all operations herein described including installation of 50mm conduit or conduits by boring method, inserting the #4 AL C/N or 1/0 AL Triplex streetlight cable into the conduit(s), buried utility crossings, use of pressurized water/vacuum excavation and all other items incidental to the work included in the Specification.
- E25.41.5 Installation of cable (#4 AL C/N or 1/0 AL Triplex) by boring method.
- (a) This pay item will be measured on a linear metre basis and paid for at the Contract Unit Price per linear metre for "Installation of cable(s) (#4 AL C/N or 1/0 AL Triplex) by boring method." The number of meters to be paid for at the Contract Unit Price shall be measured and accepted by Manitoba Hydro. The Price shall be payment in full for performing all operations herein described including installation of the cable or cables by boring method, buried utility crossings, use of pressurized water/vacuum excavation and all other items incidental to the work included in the Specification.
- E25.41.6 Installation of 25'/35' Pole, Davit Arm and Precast Concrete Base Including Luminaire and Appurtenances
- (a) This pay item will be measured on a unit basis and paid for at the Contract Unit Price per unit for "Installation of 25'/35' pole, davit arm and precast concrete base including luminaire and appurtenances." The number of units to be paid for at the Contract Unit Price shall be verified and accepted by Manitoba Hydro. The Price shall be payment in full for performing all operations herein described including installation of the pole, davit arm, base, luminaire, appurtenances, placing the cable(s) into the base, use of pressurized water/vacuum excavation and all other items incidental to the work included in the Specification.
- E25.41.7 Installation of 45' Pole, Davit Arm and Precast Concrete Base Including Luminaire and Appurtenances
- (a) This pay item will be measured on a unit basis and paid for at the Contract Unit Price per unit for "Installation of 45' pole, davit arm and precast concrete base including luminaire and appurtenances." The number of units to be paid for at the Contract Unit Price shall be verified and accepted by

Manitoba Hydro. The Price shall be payment in full for performing all operations herein described including installation of the pole, davit arm, base, luminaire, appurtenances, placing the cable(s) into the base, use of pressurized water/vacuum excavation and all other items incidental to the work included in the Specification.

E25.41.8 Installation of One (1) 10' Ground Rod at Every Third Street Light, at the End of a Street Light Circuit or Anywhere Else as Shown on the Design Drawings. Trench #4 Ground Wire up to 1 m From Rod Location to New Street Light and Connect (Hammerlock) to Top of Ground Rod

- (a) This pay item will be measured on a unit basis and paid for at the Contract Unit Price per unit for "Installation of one (1) 10' ground rod at every third street light, at the end of a street light circuit or anywhere else as shown on the design drawings. Trench #4 ground wire up to 1 m from rod location to new street light and connect (hammerlock) to top of the ground rod." The number of units to be paid for at the Contract Unit Price shall be verified and accepted by Manitoba Hydro. The Price shall be payment in full for performing all operations herein described including install one (1) 10' ground rod, trench the #4 ground wire to the new streetlight pole, connect (hammerlock) ground wire to rod and all other items incidental to the work included in the Specification.

E25.41.9 Installation of Lower 3 m of Cable Guard, Ground Lug, Cable Up Pole, and First 3 M Section of Ground Rod Per Standard CD 315-5

- (a) This pay item will be measured on a unit basis and paid for at the Contract Unit Price per unit for "Install/lower 3 m of Cable Guard, ground lug, cable up pole, and first 3 m section of ground rod per Standard CD 315-5". The number of units to be paid for at the Contract Unit Price shall be verified and accepted by Manitoba Hydro. The Price shall be payment in full for performing all operations herein described including installing the lower section of cable guard, ground lug, ground rod, coiling cable(s) up the pole and all other items incidental to the work included in the Specification.

E25.41.10 Installation and Connection of Externally-Mounted Relay and PEC Per Standards CD 315-12 and CD 315-13

- (a) This pay item will be measured on a unit basis and paid for at the Contract Unit Price per unit for "Installation and connection of externally-mounted relay and PEC per Standards CD 315-12 and CD 315-13". The number of units to be paid for at the Contract Unit Price shall be verified and accepted by Manitoba Hydro. The Price shall be payment in full for performing all operations herein described including mounting the relay, PEC, wiring as per the schematic and all other items incidental to the work included in the Specification.

E25.41.11 Termination of 2/C #12 Copper Conductor to Street Light Cables Per Standard CD310-4, CD310-9 or CD310-10

- (a) This pay item will be measured on a unit basis and paid for at the Contract Unit Price per unit for "Terminate 2/C #12 copper conductor to street light cables per Standard CD310-4, CD310-9 or CD310-10". The number of units to be paid for at the Contract Unit Price shall be verified and accepted by Manitoba Hydro. The Price shall be payment in full for performing all operations herein described including connection of the 2/C # 12 copper conductor to the #4 C/N or 1/0 Al Triplex cable(s) using a GELCAP-SL-2/0 splice kit and all other items incidental to the work included in the Specification.

E25.41.12 Splicing #4 AL C/N or 2 Single Conductor Street Light Cables

- (a) This pay item will be measured on a unit basis and paid for at the Contract Unit Price per unit for "Splicing #4 Al C/N or 2 single conductor street light

cables". The number of units to be paid for at the Contract Unit Price shall be verified and accepted by Manitoba Hydro. The Price shall be payment in full for performing all operations herein described including splicing the #4 AL C/N or 2 single conductor cables in accordance with Standard CD 215-12 and CD 215-13 and all other items incidental to the work included in the Specification.

E25.41.13 Splicing 1/0 AL Triplex Cable or 3 Single Conductor Street Light Cables

- (a) This pay item will be measured on a unit basis and paid for at the Contract Unit Price per unit for "Splicing 1/0 AL triplex cable or 3 single conductor street light cables". The number of units to be paid for at the Contract Unit Price shall be verified and accepted by Manitoba Hydro. The Price shall be payment in full for performing all operations herein described including splicing the 1/0 AL triplex cable or set of 3 single conductor cables in accordance with Standard CD 215-12 and CD 215-13 and all other items incidental to the work included in the Specification.

E25.41.14 Installation of Break-Away Base and Reaction Plate on Base-Mounted Poles up to 35'

- (a) This pay item will be measured on a unit basis and paid for at the Contract Unit Price per unit for "Installation of break-away base and reaction plate on base mounted poles up to 35'". The number of units to be paid for at the Contract Unit Price shall be verified and accepted by Manitoba Hydro. The Price shall be payment in full for performing all operations herein described including installation of the reaction plate, break-away base and all other items incidental to the work included in the Specification.

E25.41.15 Installation of Overhead Span of #4 Duplex Between New or Existing Streetlight Poles and Connect Luminaire to Provide Temporary Overhead Feed

- (a) This pay item will be measured on per span basis and paid for at the Contract Unit Price per span for "Installation of Overhead Span of #4 duplex Between New or Existing Streetlight Poles and Connect Luminaire to Provide Temporary Overhead Feed". The number of units to be paid for at the Contract Unit Price shall be verified and accepted by Manitoba Hydro. The Price shall be payment in full for performing all operations herein described including attachment of the #4 duplex overhead conductor using a perform grip (c/w spool insulator(s) to davit arm if necessary), sagging conductor, connection of luminaire using 2C#12 copper conductor and all other items incidental to the work included in the Specification.

E25.41.16 Removal of Overhead Span of #4 Duplex Between New or Existing Streetlight Poles to Remove Temporary Overhead Feed

- (a) This pay item will be measured on a per span basis and paid for at the Contract Unit Price per span for "Removal of Overhead Span of #4 duplex Between New or Existing Streetlight Poles to Remove Temporary Overhead Feed". The number of units to be paid for at the Contract Unit Price shall be verified and accepted by the Manitoba Hydro. The Price shall be payment in full for performing all operations herein described including removal of the #4 duplex overhead conductor, spool insulator(s) and all other items incidental to the work included in the Specification.

E25.41.17 Expose Underground Cable Entrance of Existing Streetlight Pole and Install New Streetlight Cable(s).

E25.42 This pay item will be measured on a unit basis and paid for at the Contract Unit Price per unit for "Expose Underground Cable Entrance of Existing Streetlight Pole and Install New Streetlight Cable(s)". The number of units to be paid for at the Contract Unit Price shall be verified and accepted by Manitoba Hydro. The Price shall be payment in full for performing all operations herein described including excavation and exposure of the underground cable entrance by any means necessary including use of pressurized water/vacuum excavation, installation of the new

streetlight cables(s), backfill, compaction and all other items incidental to the work included in the Specification.

## **E26. TRAFFIC SIGNALS CUTOVERS**

E26.1 Perform the following tasks for cutovers:

- (a) Expose existing conduits where new conduit is specified to be coupled.
- (b) Remove cables from the conduit (if present).
- (c) Cut conduit at specified location.
- (d) Push existing cables into new conduit (if present).
- (e) Couple old and new conduits together as specified in SD-340.
- (f) Backfill as specified in SD-342.
- (g) Restore as directed by the Contract Administrator.

### **MEASUREMENT AND PAYMENT**

E26.2 Cutovers

- (a) As per 4.15 of CW 3620.

## **E27. TRAFFIC SIGNALS SERVICE BOX PRE-CAST**

E27.1 Description

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

E27.2 Materials

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

E27.3 Construction Method

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

## **E28. TRAFFIC SIGNALS INSTALLATION OF EARLY OPEN CONCRETE BASES**

E28.1 Description

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

E28.2 E20.2 Materials

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

- (b) Further to E20.2(a), the supplied concrete shall achieve a minimum compressive strength of 22 MPa at 48 hours.

### E28.3 Construction Methods

- (a) Construction Methods for the installation of Early Open Concrete Bases shall be as per Section 3.7 of CW 3620.

## E29. TRAFFIC SIGNALS INSTALLATION OF PRE-CAST TYPE PM BASES

E29.1 Pre-cast Type PM concrete bases shall be supplied by The Contractor including anchor bolts.

E29.2 Fabrication and installation shall be in accordance with SD-315.A.

## E30. TRAFFIC SIGNALS SPLICING CONDUIT

E30.1 In addition to CW 3620 3.11.12, Joining of conduit will not be allowed except:

- (a) Where joining of conduit is required for Convenience of Road Construction Sequencing with a maximum of one (1) joint per conduit.

E30.2 In place of CW 3620 3.11.13, Joining of conduit shall use an approved oversize coupler to connect nominal size 1.5" or 2" LDPE pipe, IPEX Series 75, installation to follow manufacture's recommendations.

- (a) Approved Products:

- (i) Plasson Universal Slip Repair Coupler 60-64, Product Code: 176100060064 for use with nominal 2" LDPE.
- (ii) Plasson Universal Slip Repair Coupler 48-51, Product Code: 176100048051 for use with nominal 1.5" LDPE.

- (b) Substitutes will not be allowed except:

- (i) Where application has been made to and approval has been provided by Traffic Signals. The Contractor shall provide sufficient information and details to enable the Traffic Signals to determine acceptability.

E30.3 As per CW 3620 4.11.5, No measurement or payment shall be made for Joining of Conduit.

E30.4 Removal of CW 3620 2.10.1 (b) Conduit coupling pipe and gear clamps.

## E31. TRAFFIC SIGNALS ANCHOR BOLT PROJECTIONS FOR CONCRETE BASES

E31.1 Further to Section 3.7 of CW 3620 Concrete Bases Type A, Type G, Type OD and Type J Bases shall have an anchor bolt projection as specified below:

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

Concrete Base Type	Anchor Bolt Projection (mm)	Tolerance (mm)
Type A	76.0	(71.0 – 76.0)
Type G	89.0	(84.0 – 89.0)
Type OD	5038	(45.8 – 50.8)
Type J	150.0	(145.0 – 150.0)

## E32. TREE AND SHRUB REMOVAL

### DESCRIPTION

E32.1 This specification shall cover the removal of existing trees or stumps.

- E32.2 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 Work as hereinafter specified.

#### MATERIALS

- E32.3 Existing Trees to be Removed

(a) The existing trees to be removed include, but are not limited to ash, elm, cottonwood, basswood, oak, pine, maple, spruce, etc., all of which may be cut with standard chain saw equipment. The existing trees range from 50 mm to 1,000 mm diameter.

#### CONSTRUCTION METHODS

- E32.4 Prior to commencement of the Work the Contract Administrator shall identify all trees for removal. The Contractor shall cut down only trees designated to be removed and grub out all stumps and roots greater than 100 mm diameter to 400 mm below finished grade.
- E32.5 In general, the Contractor shall start at the top of the tree and remove branches or trunks not longer than 2 m. Trees are to be felled so as to land within the limits of the Works. The Contractor shall load and haul all trees, stumps, roots, logs, brush, rubbish and all other surface litter from the Site and dispose of these materials at an approved disposal Site, acceptable to the Contract Administrator.
- E32.6 The Contractor shall take all precautions to prevent damage to structures, adjacent property and to trees and shrubs. In the event of damage, the Contractor will be held liable and shall be required to provide appropriate restoration at their cost, to the satisfaction of the Contract Administrator.
- E32.7 Any trees damaged during construction activities shall be examined by a bonded tree care professional and pruned as required. Damaged trees which are not viable shall be replaced by the Contractor at their own cost.
- E32.8 Trees selected for pruning to be completed by a bonded tree care professional. The Contractor shall load and haul all pruned material from the Site and dispose of these materials at an approved disposal Site, acceptable to the Contract Administrator.

#### MEASUREMENT AND PAYMENT

- E32.9 The removal of existing trees, stumps, or shrubs shall be counted and paid for at the Contract Unit Price per unit for the "Items of Work" listed below. The amount to be paid shall be the total number of trees removed in accordance with this specification, accepted and measured by the Contract Administrator.

##### Items of Work:

##### Tree Removal

- (i) Less than 500 mm Diameter.

##### Stump Removal

- (i) Less than 500 mm Diameter.

##### Pruning

- (ii) Less than 200 mm Diameter.

##### Shrub Removal

- (iii) Less than 10m<sup>2</sup>.

- E32.10 The removal of trees and brush less than 50 mm diameter is considered incidental to the Work and no separate measurement or payment will be made.

**E33. RESTORATION OF PAINT MARKINGS AND SYMBOLS**

- E33.1 Following asphalt renewal works, the Contractor shall restore the line painting and symbol markings for the parking lot along the alley to match the existing paint lines and symbol markings.
- E33.2 Payment for the Work shall be a lump sum price for the following pay item:
- (a) Repainting of Line Marking and Barrier Free Symbols.