



THE CITY OF WINNIPEG

TENDER

TENDER NO. 59-2025

**DUGALD ROAD PAVEMENT RENEWAL – PLESSIS ROAD TO RAVENHURST
STREET**

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PART B - BIDDING PROCEDURES

B1. CONTRACT TITLE

B1.1 Dugald Road Pavement Renewal – Plessis Road to Ravenhurst Street

B2. SUBMISSION DEADLINE

B2.1 The Submission Deadline is 12:00 noon Winnipeg time, March 28, 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 D6.1.

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

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

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

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

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

B5. CONFIDENTIALITY

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

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

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

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

B7. SUBSTITUTES

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

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

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

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

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

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

B8. BID COMPONENTS

- B8.1 The Bid shall consist of the following components:
- (a) Form A: Bid;
 - (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.
- 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 D36. Any such costs shall be determined in accordance with D36.
- B10.2 The quantities listed on Form B: Prices are to be considered approximate only. The City will use said quantities for the purpose of comparing Bids.
- B10.3 The quantities for which payment will be made to the Contractor are to be determined by the Work actually performed and completed by the Contractor, to be measured as specified in the applicable Specifications.
- B10.4 Payments to Non-Resident Contractors are subject to Non-Resident Withholding Tax pursuant to the Income Tax Act (Canada).
- B10.5 The Bidder shall enter the Total Bid Price from Form B: Prices into the Total Bid Price field in MERX.
- B10.5.1 Bidders are advised that the calculation indicated in B18.4 will prevail over the Total Bid Price entered in MERX.

B11. DISCLOSURE

- B11.1 Various Persons provided information or services with respect to this Work. In the City's opinion, this relationship or association does not create a conflict of interest because of this full disclosure. Where applicable, additional material available as a result of contact with these Persons is listed below.
- B11.2 The Persons are:
- (a) Magnum Services; discussed construction risks and durations as well as specifications related to the CIREAM construction process.

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.
- 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.
- 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.
- B18.3 Further to B18.1(b), the Award Authority shall reject any Bid submitted by a Bidder who does not demonstrate, in their Bid or in other information required to be submitted, that they are qualified.
- B18.4 Further to B18.1(c), the Total Bid Price shall be the sum of the quantities multiplied by the unit prices for each item shown on Form B: Prices.
- B18.4.1 Further to B18.1(a), in the event that a unit price is not provided on Form B: Prices, the City may determine the unit price by dividing the Amount (extended price) by the approximate quantity, for the purposes of evaluation and payment.
- B18.4.2 Bidders are advised that the calculation indicated in B18.4 will prevail over the Total Bid Price entered in MERX.

B19. AWARD OF CONTRACT

- B19.1 The City will give notice of the award of the Contract or will give notice that no award will be made.
- B19.2 The City will have no obligation to award a Contract to a Bidder, even though one or all of the Bidders are determined to be qualified, and the Bids are determined to be responsive.
- B19.2.1 Without limiting the generality of B19.2, the City will have no obligation to award a Contract where:
- (a) the prices exceed the available City funds for the Work;
 - (b) the prices are materially in excess of the prices received for similar work in the past;
 - (c) the prices are materially in excess of the City's cost to perform the Work, or a significant portion thereof, with their own forces;
 - (d) only one Bid is received; or
 - (e) in the judgment of the Award Authority, the interests of the City would best be served by not awarding a Contract.
- B19.3 If funding for the Work is provided to the City of Winnipeg by the Government of Manitoba and/or the Government of Canada, Bidders are advised that the terms of D36 shall immediately take effect upon confirmation of such funding, regardless of when funding is confirmed.
- B19.4 Where an award of Contract is made by the City, the award shall be made to the qualified Bidder submitting the lowest evaluated responsive Bid, in accordance with B18.
- B19.4.1 Following the award of contract, a Bidder will be provided with information related to the evaluation of their Bid upon written request to the Contract Administrator.

PART C - GENERAL CONDITIONS

C0. GENERAL CONDITIONS

- C0.1 The *General Conditions for Construction* (Revision 2020-01-31) are applicable to the Work of the Contract.
- C0.1.1 The *General Conditions for Construction* are available on the Information Connection page at The City of Winnipeg, Corporate Finance, Purchasing Division website at http://www.winnipeg.ca/matmgt/gen_cond.stm
- 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:

- (a) Asphalt Pavement Reconstruction
 - (i) Dugald Road Westbound from Sta 2+95 to Sta 5+40
 - (ii) Dugald Road Eastbound from Plessis Road to Sta 5+40
- (b) Asphalt Pavement Widening
 - (i) Plessis Road Northbound from 275m south of Dugald Road to Dugald Road
 - (ii) Dugald Road from 300m west of Murdoch Road to 400m East of Murdoch Road
- (c) Asphalt Mill and Fill
 - (i) Dugald Road from Sta 1+85 to Sta 2+95 (100mm average new SP1 asphalt in two lifts with glas-grid)
 - (ii) Dugald Road from Sta 5+40 to Sta 20+35 (100mm average new SP1 asphalt in two lifts with glas-grid)
 - (iii) Dugald Road from Sta 39+35 to Ravenhurst Street (50mm average new SP1 asphalt)
- (d) Asphalt CIREAM
 - (i) Dugald Road from Sta 20+35 to Sta 39+35 (130mm thick)

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

- (a) Asphalt Pavement Reconstruction
 - (i) Asphalt pavement removal (up to 270mm thick)
 - (ii) Barrier curb and gutter removal
 - (iii) Excavation
 - (iv) Bench cutting of existing slopes
 - (v) Sub-grade compaction
 - (vi) Placement of geotextile and geo-grid
 - (vii) Placement of sub-base and base course
 - (viii) Construction of concrete reverse curb and gutter (150mm barrier and 120mm mountable)
 - (ix) Placement of SP1 and SP2 asphalt for mainline (three lifts total 170mm)
 - (x) Placement of Type 1A asphalt for approach tie-ins (120mm thick)
 - (xi) Grading of ditches (reshaping of full ditch on south side of Dugald Rd)
 - (xii) Supply and installation of CSP culverts
 - (xiii) Hydro-seeding

- (xiv) Top soil and sod
- (b) Asphalt Pavement Widening
 - (i) Excavation of existing shoulder and ditch slopes
 - (ii) Bench cutting of existing slopes
 - (iii) Sub-grade compaction
 - (iv) Placement of geotextile and geo-grid
 - (v) Placement of sub-base and base course
 - (vi) Construction of concrete reverse curb and gutter (150mm barrier and 120mm mountable)
 - (vii) Placement of three lifts of SP asphalt (170mm thick)
 - (viii) Grading of ditches (reshaping of full north and south ditches at Murdock Rd intersection)
 - (ix) Relocation of hydrants
 - (x) Adjustment of hydrant, water valves and manholes
 - (xi) Supply and installation of CSP culverts
 - (xii) Supply and installation of precast concrete pipe (on Plessis Rd)
 - (xiii) Hydro-seeding
- (c) Asphalt Mill and Fill
 - (i) Preparation of existing granular shoulder
 - (ii) Placement of granular A base course to build up the shoulders where required
 - (iii) Milling of asphalt to varying depths (20mm to 150mm depths, grades will be provided)
 - (iv) Placement of SP1 asphalt in two lifts (100mm thick)
 - (v) Placement of glas-grid between asphalt lifts
 - (vi) Construction of granular SET
 - (vii) Minor repair to existing concrete barrier curb and gutter
- (d) Asphalt CIREAM
 - (i) Preparation of existing granular shoulders
 - (ii) Placement of granular A base course to build up the shoulders
 - (iii) CIREAM process (130mm thick)
 - (iv) Placement of concrete reverse curb and gutter (120mm mountable)
 - (v) Placement of three lifts of SP asphalt (170mm thick)
 - (vi) Placement of glas-grid
 - (vii) Placement of raked asphalt median
 - (viii) Supply and Installation of CSP culverts
 - (ix) Ditch grading (from edge of rounding to ditch bottom)
 - (x) Hydro seeding

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) “**CIREAM**” means Cold in Place Recycled Expanded Asphalt Mix;
- (b) “**HMA**” means Hot Mix Asphalt
- (c) “**SET**” means Surface Edge Treatment also known as rounding, as defined by the detail in the Contract Drawings.
- (d) “**SP**” means Superpave and refers to either SP-1 or SP-2 as defined by Appendix “B”;
- (e) “**Supply Chain Disruption**” means an inability by the Contractor to obtain goods or services from third parties necessary to perform the Work of the Contract within the schedule specified therein, despite the Contractor making all reasonable commercial efforts to procure same. Contractors are advised that increased costs do not, in and of themselves, amount to a Supply Chain Disruption;
- (f) “**VMS**” means electronic and movable Variable Message Sign;

D6. CONTRACT ADMINISTRATOR

D6.1 The Contract Administrator is WSP, represented by:

Scott Suderman, P.Eng.
Senior Project Manager

Telephone No. 204 782-7189 Email Address scott.suderman@wsp.com

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

D7. CONTRACTOR'S SUPERVISOR

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

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

D8. ACCESSIBLE CUSTOMER SERVICE REQUIREMENTS

- D8.1 The Accessibility for Manitobans Act (AMA) imposes obligations on The City of Winnipeg to provide accessible customer service to all persons in accordance with the Customer Service Standard Regulation (“CSSR”) to ensure inclusive access and participation for all people who live, work or visit Winnipeg regardless of their abilities.
- D8.1.1 The Contractor agrees to comply with the accessible customer service obligations under the CSSR and further agrees that when providing the Goods or Services or otherwise acting on the City of Winnipeg’s behalf, shall comply with all obligations under the AMA applicable to public sector bodies.
- D8.1.2 The accessible customer service obligations include, but are not limited to:
- (a) providing barrier-free access to goods and services;
 - (b) providing reasonable accommodations;
 - (c) reasonably accommodating assistive devices, support persons, and support animals;
 - (d) providing accessibility features e.g. ramps, wide aisles, accessible washrooms, power doors and elevators;
 - (e) inform the public when accessibility features are not available;
 - (f) providing a mechanism or process for receiving and responding to public feedback on the accessibility of all goods and services; and
 - (g) providing adequate training of staff and documentation of same.

D9. UNFAIR LABOUR PRACTICES

- D9.1 Further to C3.2, the Contractor declares that in bidding for the Work and in entering into this Contract, the Contractor and any proposed Subcontractor(s) conduct their respective business in accordance with established international codes embodied in United Nations Universal Declaration of Human Rights (UDHR) <https://www.un.org/en/about-us/universal-declaration-of-human-rights> International Labour Organization (ILO) [https://www.ilo.org/global/lang--en/index.htm](https://www.ilo.org/global/lang-en/index.htm) conventions as ratified by Canada.
- D9.2 The City of Winnipeg is committed and requires its Contractors and their Subcontractors, to be committed to upholding and promoting international human and labour rights, including fundamental principles and rights at work covered by ILO eight (8) fundamental conventions and the United Nations Universal Declaration of Human Rights which includes child and forced labour.
- D9.3 Upon request from the Contract Administrator, the Contractor shall provide disclosure of the sources (by company and country) of the raw materials used in the Work and a description of the manufacturing environment or processes (labour unions, minimum wages, safety, etc.).
- D9.4 Failure to provide the evidence required under D9.3, may be determined to be an event of default in accordance with C18.
- D9.5 In the event that the City, in its sole discretion, determines the Contractor to have violated the requirements of this section, it will be considered a fundamental breach of the Contract and the Contractor shall pay to the City a sum specified by the Contract Administrator in writing (“Unfair Labour Practice Penalty”). Such a violation shall also be considered an Event of Default, and shall entitle the City to pursue all other remedies it is entitled to in connection with same pursuant to the Contract.
- D9.5.1 The Unfair Labour Practice Penalty shall be such a sum as determined appropriate by the City, having due regard to the gravity of the Contractor’s violation of the above requirements, any cost of obtaining replacement goods/ services or rectification of the breach, and the impact upon the City’s reputation in the eyes of the public as a result of same.

- D9.5.2 The Contractor shall pay the Unfair Labour Practice Penalty to the City within thirty (30) Calendar Days of receiving a demand for same in accordance with D9.5. The City may also hold back the amount of the Unfair Labour Practice Penalty from payment for any amount it owes the Contractor.
- D9.5.3 The obligations and rights conveyed by this clause survive the expiry or termination of this Contract, and may be exercised by the City following the performance of the Work, should the City determine, that a violation by the Contractor of the above clauses has occurred following same. In no instance shall the Unfair Labour Practice Penalty exceed the total of twice the Contract value.

D10. FURNISHING OF DOCUMENTS

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

SUBMISSIONS

D11. AUTHORITY TO CARRY ON BUSINESS

- D11.1 The Contractor shall be in good standing under The Corporations Act (Manitoba), or properly registered under The Business Names Registration Act (Manitoba), or otherwise properly registered, licensed or permitted by law to carry on business in Manitoba, or if the Contractor does not carry on business in Manitoba, in the jurisdiction where the Contractor does carry on business, throughout the term of the Contract, and shall provide the Contract Administrator with evidence thereof upon request.

D12. SAFE WORK PLAN

- D12.1 The Contractor shall provide the Contract Administrator with a Safe Work Plan at least five (5) Business Days prior to the commencement of any Work on the Site but in no event later than the date specified in C4.1 for the return of the executed Contract Documents, if applicable.
- D12.2 The Safe Work Plan shall be prepared and submitted in the format shown in the City's template which is available on the Information Connection page at The City of Winnipeg, Corporate Finance, Purchasing Division website at <http://www.winnipeg.ca/matmgt/safety/default.stm>
- D12.3 Notwithstanding 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.

D13. INSURANCE

- D13.1 The Contractor shall provide and maintain the following insurance coverage:
- (a) commercial general liability insurance, in the amount of at least five million dollars (\$5,000,000.00) inclusive, with The City of Winnipeg added as an additional insured, with a cross-liability clause, such liability policy to also contain contractual liability, unlicensed motor vehicle liability, sudden and accidental pollution, non-owned automobile liability, broad form property damage cover and products and completed operations, to remain in place at all times during the performance of the Work and throughout the warranty period;
 - (b) if applicable, Automobile Liability Insurance covering all motor vehicles, owned and operated and used or to be used by the Contractor directly or indirectly in the performance of the Work. The Limit of Liability shall not be less than \$5,000,000 inclusive for loss or damage including personal injuries and death resulting from any one accident or occurrence;

- (c) Property insurance for all equipment, tools, field offices and portable toilets used by the Contractor directly or indirectly in the performance of the Work on the project that may be owned, rented, leased or borrowed.

D13.2 Deductibles shall be borne by the Contractor.

D13.3 All policies shall be taken out with insurers licensed to carry on business in the Province of Manitoba.

D13.4 All Subcontractors performing Work on the Project shall provide the Contractor with evidence of insurance as outlined in D13.1(a) and (b) above and be registered with Works Compensation Board of Manitoba and maintain insurance and workers compensation coverage throughout the performance of the Work. The Contractor shall provide the Contract Administrator with evidence same prior to the commencement of any Work.

D13.5 The Contractor shall provide the City Solicitor with a certificate(s) of insurance, in a form satisfactory to the City Solicitor, at least two (2) Business Days prior to the commencement of any Work but in no event later than the date specified in the C4.1 for the return of the executed Contract Documents, as applicable.

D13.6 The Contractor shall not cancel, materially alter, or cause each policy to lapse without providing at least thirty (30) Calendar Days prior written notice to the Contract Administrator.

D14. CONTRACT SECURITY

D14.1 The Contractor shall provide and maintain the performance bond and the labour and material payment bond until the expiration of the warranty period in the form of:

- (a) a performance bond of a company registered to conduct the business of a surety in Manitoba, [Form H1 Performance Bond](#) in the amount of fifty percent (50%) of the Contract Price; and
- (b) a labour and material payment bond of a company registered to conduct the business of a surety in Manitoba [Form H2 Labour and Material Bond](#), in an amount equal to fifty percent (50%) of the Contract Price.

D14.1.1 Where the contract security is a performance bond, it may be submitted in hard copy or digital format. If submitted in digital format the contract security must meet the following criteria:

- (a) the version submitted by the Contractor must have valid digital signatures and seals;
- (b) the version submitted by the Contractor must be verifiable by the City with respect to the totality and wholeness of the bond form, including: the content; all digital signatures and digital seals; with the surety company, or an approved verification service provider of the surety company.
- (c) the version submitted must be viewable, printable and storable in standard electronic file formats compatible with the City, and in a single file. Allowable formats include pdf.
- (d) the verification may be conducted by the City immediately or at any time during the life of the bond and at the discretion of the City with no requirement for passwords or fees.
- (e) the results of the verification must provide a clear, immediate and printable indication of pass or fail regarding D14.1(b).

D14.1.2 Digital bonds failing the verification process will not be considered to be valid and may be determined to be an event of default in accordance with C18.1. If a digital bond fails the verification process, the Contractor may provide a replacement bond (in hard copy or digital format) within seven (7) Calendar Days of the City's request or within such greater period of time as the City in their discretion, exercised reasonably, allows.

D14.1.3 Digital bonds passing the verification process will be treated as original and authentic.

D14.2 The Contractor shall provide the Contract Administrator identified in D6 with the required performance and labour and material payment bonds within seven (7) Calendar Days of notification of the award of the Contract by way of an award letter and prior to the commencement of any Work on the Site but in no event later than the date specified in C4.1 for the return of the executed Contract Documents, if applicable.

D14.3 The Contractor shall, as soon as practicable after entering into a contract with a Subcontractor:

- (a) give the Subcontractor written notice of the existence of the labour and material payment bond in D14.1(b); and
- (b) post a notice of the bond and/or a copy of that bond in a conspicuous location at the Site of the Work.

D15. SUBCONTRACTOR LIST

D15.1 The Contractor shall provide the Contract Administrator with a complete list of the Subcontractors whom the Contractor proposes to engage (Form J: Subcontractor List) at or prior to a pre-construction meeting, or at least ten (10) Business Days prior to the commencement of any Work on the Site but in no event later than the date specified in the C4.1 for the return of the executed Contract Documents, if applicable.

D16. EQUIPMENT LIST

D16.1 The Contractor shall provide the Contract Administrator with a complete list of the equipment which the Contractor proposes to utilize (Form K: Equipment List) at or prior to a pre-construction meeting, or at least ten (10) Business Days prior to the commencement of any Work on the Site but in no event later than the date specified in the C4.1 for the return of the executed Contract Documents, if applicable.

D17. DETAILED WORK SCHEDULE

D17.1 The Contractor shall provide the Contract Administrator with a detailed work schedule at least ten (10) Business Days prior to the commencement of any Work on the Site but in no event later than the date specified in the General Conditions for the return of the executed Contract Documents, as applicable.

D17.2 The detailed work schedule shall consist of the following:

- (a) a critical path method (C.P.M.) schedule for the Work; and
- (b) a Gantt chart for the Work based on the C.P.M. schedule.

all acceptable to the Contract Administrator.

D17.3 Further to D17.2(b), the Gantt chart shall show the time on a weekly basis, required to carry out the Work of each trade, or specification division. The time shall be on the horizontal axis, and the type of trade shall be on the vertical axis.

D17.4 The detailed work schedule will be an important tool for the Contract Administrator to proactively communicate changes to regional, local and truck traffic detours.

SCHEDULE OF WORK

D18. COMMENCEMENT

D18.1 The Contractor shall not commence any Work until they are in receipt of an award letter from the Award Authority authorizing the commencement of the Work.

- D18.2 The Contractor shall not commence any Work on the Site until:
- (a) the Contract Administrator has confirmed receipt and approval of:
 - (i) evidence of authority to carry on business specified in D11;
 - (ii) evidence of the workers compensation coverage specified in C6.15;
 - (iii) the twenty-four (24) hour emergency response phone number specified in D7.2.
 - (iv) the Safe Work Plan specified in D12;
 - (v) evidence of the insurance specified in D13;
 - (vi) the contract security specified in D14;
 - (vii) the subcontractor list specified in D15;
 - (viii) the equipment list specified in D16;
 - (ix) the detailed work schedule specified in D17; and
 - (x) the direct deposit application form specified in D30
 - (b) the Contractor has attended a pre-construction meeting with the Contract Administrator, or the Contract Administrator has waived the requirement for a pre-construction meeting.
- D18.3 The Contractor shall not commence the Work on the Site before May 5th, 2025, and shall commence the Work on Site no later than May 19th, 2025, as directed by the Contract Administrator and weather permitting.
- D18.4 The City intends to award this Contract by April 18th, 2025
- D18.4.1 If the actual date of award is later than the intended date, the dates specified for Substantial Performance, and Total Performance will be adjusted by the difference between the aforementioned intended and actual dates.

D19. RESTRICTED WORK HOURS

- D19.1 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.

D20. WORK BY OTHERS

- D20.1 Further to C6.25, the Contractor's attention is directed to the fact that other Contractors, the personnel of Utilities and the staff of the City may be working within the project limit, approach roadway, adjacent roadways or right-of-way. The activities of these agencies may coincide with the 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.
- D20.2 Work by others on or near the Site will include but not necessarily be limited to:
- (a) City of Winnipeg Geomatics Branch – The Contractor is to acquire locates from the Geomatics Branch. If any permanent geomatics infrastructures is required to be disturbed during construction activities, the Contract is to notify the Contract Administrator for documentation;
 - (b) City of Winnipeg Water Services – Inspection of water valves;
 - (c) City of Winnipeg Traffic Signals – Relocation of the signal light on the southeast corner of Dugald Rd and Plessis Rd. Renewal of the flashing beacons at the median bull noses.
 - (d) City of Winnipeg Traffic Services – The City will provide, install and maintain detour related signage outside of the work zone. The Contractor will provide, install and maintain the Designated Work Zone signage and up to three electronic variable message signs.

- (e) Manitoba Hydro – Safety watch as required. Renewal of existing street light davits on eastbound Dugald Rd, just east of Plessis Rd. Addition of new streetlights in the north ditch near Murdock Rd.
- (f) BellMTS – Burial of an overhead line near Murdock Rd.
- (g) Imperial Oil – Safety watch and issue of Permit for work over the two pipelines. The Contractor is to obtain clearances directly from the oil company.
- (h) Olympic Builders Ready Move Homes – When the Contractor prepares the schedule as per D17, they are to include three windows of time where Olympic can move houses. The houses are moved overnight and by police escort. The windows are to be five-day windows; end of June, end of July, and end of August. This will be a basis for coordination and will be refined. As the project progresses these windows will be reduced and optimized. Olympic will be flexible, understanding certain operations cannot allow them to move, for example they cannot drive on a milled surface.

D20.3 Further to D20.1 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 D20.2 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.

D21. SEQUENCE OF WORK

D21.1 Further to C6.1, the sequence of work shall be as follows:

D21.1.1 The Work shall be divided into Stages. Each Stage shall be subdivided into sub-stages. Sub-stages are further subdivided into major items of work.

D21.1.2 Stage 1 (Maintain EB traffic in one lane)

(a) Stage 1a

- (i) Temporary Pavement for median at the Transcona Country Club.
- (ii) Temporary Pavement for the EB Dugald Rd right turn on to SB Mazenod. This is not shown in the drawings. This includes removing the exterior curb, constructed temporary asphalt pavement. This allows LCV vehicles to not use Dugald Rd east of Plessis during construction. This work will be paid for under the respectful unit prices.
- (iii) Hydro-vac sensitive utilities.

(b) Stage 1b

- (i) Excavation and base construction for WB Dugald reconstruction section the at west end
- (ii) Shoulder preparation of the north shoulder and excavation and base construction for the pavement widening at Murdock Rd on the north side.
- (iii) Shoulder preparation of the north shoulder and excavation and base construction for the pavement widening at Murdock Rd on the south side.

(c) Stage 1c

- (i) Mill north side in all of the mill and fill sections (west, middle and east end)
- (ii) Pave all north side except the CIREAM section

D21.1.3 Stage 2 (Maintain EB traffic in one lane)

- (i) Mill south side in the middle mill and fill section
- (ii) Pave the south side in the middle mill and fill section

D21.1.4 Stage 3 (Full Closure in CIREAM Section)

- (i) Perform the CIREAM process
- (ii) Construct curb and gutter median at Murdock Rd
- (iii) Asphalt pave the CIREAM section

- D21.1.5 **Stage 4 (Maintain WB traffic one lane)**
- (i) EB Dugald Reconstruction at the west end
 - (ii) EB Dugald mill and fill in the north lane on the east end

- D21.1.6 **Plessis Rd – Right Turn Lane**
- (i) This is a non-critical task and can fit in the sequencing to accommodate the Contractor's work flow.

D21.2 Placing the topsoil and finished grading of the median areas shall be completed prior to commencing construction of the asphaltic concrete overlay, including the scratch course.

D21.3 Asphalt is to be placed on a milled surface within three working days, unless approved by the Contract Administrator.

D22. SUBSTANTIAL PERFORMANCE

- D22.1 The Contractor shall achieve Substantial Performance by September 26, 2025.
- D22.2 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.
- D22.3 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.

D23. TOTAL PERFORMANCE

- D23.1 The Contractor shall achieve Total Performance by October 3, 2025.
- D23.2 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.
- D23.3 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.

D24. LIQUIDATED DAMAGES

- D24.1 If the Contractor fails to achieve 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 Calendar Day for each and every Calendar Day following the days fixed herein for same during which such failure continues:
- (a) Substantial Performance – Four Thousand Five Hundred dollars (\$4500.00);
 - (b) Total Performance – One Thousand dollars (\$1000.00).
- D24.2 The amounts specified for liquidated damages in D24.1 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.
- D24.3 The City may reduce any payment to the Contractor by the amount of any liquidated damages assessed.

D25. SUPPLY CHAIN DISRUPTION SCHEDULE DELAYS

- D25.1 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.
- D25.2 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.
- D25.3 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.
- D25.4 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 D25.3. Failure to provide this notice will result in no additional time delays being considered by the City.
- D25.5 The Work schedule, including the durations identified in D19 to D23 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.
- D25.6 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.
- D25.7 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.

D26. SCHEDULED MAINTENANCE

- D26.1 The Contractor shall perform the following scheduled maintenance in the manner and within the time periods required by the Specifications:
- (a) Seed Maintenance as specified in CW 3520;
 - (b) Reflective Crack Maintenance as specified in CW 3250.
- D26.2 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

D27. JOB MEETINGS

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

D27.2 The Contract Administrator reserves the right to cancel any job meeting or call additional job meetings whenever they deem it necessary.

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

D28.1 Further to C6.26, the Contractor shall be the Prime Contractor and shall serve as, and have the duties of the Prime Contractor in accordance with The Workplace Safety and Health Act (Manitoba).

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

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

MEASUREMENT AND PAYMENT

D30. PAYMENT

D30.1 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.

D31. FUEL PRICE ADJUSTMENT

D31.1 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.

D31.1.1 Eligible Work will be determined in accordance with D31.5.

D31.1.2 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.

D31.1.3 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.

D31.1.4 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.

D31.2 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.

D31.3 The fuel escalation or de-escalation adjustment will not be applied if the CFI is within $\pm 15\%$ of the BFI.

D31.4 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.

D31.5 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.

D32. ADJUSTMENTS FOR CHANGES IN LAWS, TAXES, OR TARIFFS

D32.1 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.

D32.2 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.

WARRANTY

D33. WARRANTY

D33.1 Notwithstanding C13.2, the warranty period shall begin on the date of Substantial Performance and shall expire one (1) years thereafter for Mill and Fill and CIREAM pavement renewals , and two (2) years thereafter for asphalt pavement reconstruction works, unless extended pursuant to C13.2.1 or C13.2.2, in which case it shall expire when provided for thereunder.

D33.2 Notwithstanding C13.2 or D33.1, the Contract Administrator may permit the warranty period for a portion or portions of the Work to begin prior to the date of Substantial Performance if:

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

D34. DISPUTE RESOLUTION

D34.1 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 D34.

D34.2 The entire text of C21.4 is deleted, and amended to read: "Intentionally Deleted"

D34.3 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.

D34.4 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.

D34.4.1 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.

D34.4.2 As these negotiations are not an adjudicative hearing, neither party may have legal counsel present during the negotiations.

D34.4.3 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.

D34.4.4 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 D34.4.3, 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

D35. INDEMNITY

D35.1 Indemnity shall be as stated in C17.

D35.2 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.

D35.3 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

D36. FUNDING AND/OR CONTRIBUTION AGREEMENT OBLIGATIONS

- D36.1 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.
- D36.2 Further to D36.1, in the event that the obligations in D36 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.
- D36.3 For the purposes of D36:
- (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.
- D36.4 Modified Insurance Requirements
- D36.4.1 If not already required under the insurance requirements identified in D13, the Contractor will be required to provide wrap-up liability insurance in an amount of no less than two million dollars (\$2,000,000) inclusive per occurrence. Such policy will be written in the joint names of the City, Contractor, Consultants and all sub-contractors and sub-consultants and include twelve (12) months completed operations. The Government of Manitoba and their Ministers, officers, employees, and agents shall be added as additional insureds.
- D36.4.2 If not already required under the insurance requirements identified in D13, the Contractor will be required to provide builders' risk insurance (including boiler and machinery insurance, as applicable) providing all risks coverage at full replacement cost, or such lower level of insurance that the City may identify on a case-by-case basis, such as an installation floater.
- D36.4.3 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.

D36.4.4 Further to D13.5, insurers shall provide satisfactory Certificates of Insurance to the Government of Manitoba prior to commencement of Work as written evidence of the insurance required. The Certificates of Insurance must provide for a minimum of thirty (30) days' prior written notice to the Government of Manitoba in case of insurance cancellation.

D36.4.5 All policies must be taken out with insurers licensed to carry on business in the Province of Manitoba.

D36.5 Indemnification By Contractor

D36.5.1 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.

D36.5.2 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.

D36.6 Records Retention and Audits

D36.6.1 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.

D36.6.2 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 D36.6.1 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.

D36.7 Other Obligations

- D36.7.1 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.
- D36.7.2 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.
- D36.7.3 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.
- D36.7.4 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.
- D36.7.5 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.
- D36.7.6 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)

DUGALD ROAD PAVEMENT RENEWAL – PLESSIS ROAD TO RAVENHURST STREET

<u>Portion of the Work</u>	<u>Name</u>	<u>Address</u>
SURFACE WORKS		
<u>Supply of Materials</u>		
Sub-base and base course		
Asphalt		
Glas-grid		
Concrete		
Culverts		
Hydro-seed		
Variable Message Signs		
Catch Basins		
<u>Installation and Placement</u>		
Excavation		
Sub-base and base course		
Asphalt		
CIREAM		
Glas-grid		
Concrete		
Culverts		
Hydro-seed		
Milling		
Crack Sealing		
Catch Basins		
Hydrant Relocation		

FORM K: EQUIPMENT
(See D16)

DUGALD ROAD PAVEMENT RENEWAL – PLESSIS ROAD TO RAVENHURST STREET

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

FORM K: EQUIPMENT
(See D16)

DUGALD ROAD PAVEMENT RENEWAL – PLESSIS ROAD TO RAVENHURST STREET

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

PART E - SPECIFICATIONS

GENERAL

E1. APPLICABLE SPECIFICATIONS AND DRAWINGS

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

<u>Drawing No.</u>	<u>Drawing Name/Title</u>	<u>Drawing (Original) Sheet Size</u>
	Cover Sheet	A1
P-3594-01	Plessis Road and Dugald Road – Horizontal Geometry and Pavement Renewal Types	A1
P-3594-02	Dugald Road – Horizontal Geometry and Pavement Renewal Types	A1
P-3594-03	Plessis Road and Dugald Road – Horizontal Geometry and Pavement Renewal Types	A1
P-3594-04	Plessis Road and Dugald Road – Horizontal Geometry and Pavement Renewal Types	A1
P-3594-05	Plessis Road and Dugald Road – Horizontal Geometry and Pavement Renewal Types	A1
P-3594-06	Plessis Road and Dugald Road – Horizontal Geometry and Pavement Renewal Types	A1
P-3594-07	Plessis Road and Dugald Road – Horizontal Geometry and Pavement Renewal Types	A1
P-3594-08	Plessis Road – Plan and Profile	A1
P-3594-09	Dugald Road – Plan and Profile	A1
P-3594-10	Dugald Road – Plan and Profile	A1
P-3594-11	Dugald Road – Plan and Profile	A1
P-3594-12	Dugald Road – Plan and Profile	A1
P-3594-13	Dugald Road – Plan and Profile	A1
P-3594-14	Dugald Road – Plan and Profile	A1
P-3594-15	Dugald Road – Plan and Profile	A1
P-3594-16	Dugald Road – Plan and Profile	A1
P-3594-17	Dugald Road – Plan and Profile	A1
P-3594-18	Dugald Road – Plan and Profile	A1
P-3594-19	Dugald Road – Plan and Profile	A1
P-3594-20	Dugald Road – Plan and Profile	A1
P-3594-21	Dugald Road – Plan and Profile	A1

<u>Drawing No.</u>	<u>Drawing Name/Title</u>	<u>Drawing (Original) Sheet Size</u>
P-3594-22	Dugald Road – Plan and Profile	A1
P-3594-23	Dugald Road – Plan and Profile	A1
P-3594-24	Dugald Road – Plan and Profile	A1
P-3594-25	Plessis Road and Dugald Road – Cross Sections and Details	A1
P-3594-26	Plessis Road and Dugald Road – Cross Sections and Details	A1
P-3594-27	Plessis Road and Dugald Road – Cross Sections and Details	A1
P-3594-28	Dugald Road from Plessis Rd to Ravenhurst St – Staging Drawings	A1
P-3594-29	Dugald Road from Plessis Rd to Ravenhurst St – Staging Drawings	A1
P-3594-30	Dugald Road from Plessis Rd to Ravenhurst St – Staging Drawings	A1
P-3594-31	Dugald Road from Plessis Rd to Ravenhurst St – Staging Drawings	A1
P-3594-32	Dugald Road from Plessis Rd to Ravenhurst St – Staging Drawings	A1
P-3594-33	Dugald Road from Plessis Rd to Ravenhurst St – Staging Drawings	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 Mobilization and Demobilization will be paid only once (to a maximum of 100%), regardless of the number of times the Contractor mobilizes to the site and/or sites.

E3. GEOTECHNICAL REPORT

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

E4. OFFICE FACILITIES

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

- (a) The field office shall be for the exclusive use of the Contract Administrator.
- (b) The building shall be conveniently located near the site of the Work at a location agreed to by the Contract Administrator.
- (c) Three keys shall be provided for the Contract Administrator's use.
- (d) The building shall have a minimum floor area of 20 square metres, 2.4 with a window and a door entrance with a suitable lock.
- (e) The building shall be suitable for all weather use. It shall be equipped with an electric heater and air conditioner so that the room temperature can be maintained between either 16-18°C or 24-25°C.
- (f) The building shall be powered by a generator provided and maintained by the Contractor. Alternative power sources are to be approved by the Contract Administrator.
- (g) The building shall be adequately lighted with fluorescent fixtures and have a minimum of three wall outlets.
- (h) The office shall allow clear reception of a cell phone within the office with the door closed.

- (i) The building shall be furnished with one desk, table 3m x 1.2m, one four drawer legal size filing cabinet, and a minimum of 8 chairs. The chairs shall not contain fabric.
- (j) The building shall include a microwave and a small fridge.
- (k) A portable toilet shall be located near the field office building. The toilet shall have a locking door and be for the exclusive use of the Contract Administrator and other personnel from the City.
- (l) The field office building and the portable toilet shall be cleaned on a weekly basis immediately prior to each site meeting. The Contract Administrator may request additional cleaning when they deem it necessary.

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

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

E5. PROTECTION OF EXISTING TREES

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

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

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

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

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

E6. TRAFFIC CONTROL

E6.1 Further to 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) Designated Construction Zones;
 - (viii) 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.

E6.2 Upon request from the Contract Administrator, the Contractor shall provide records demonstrating that the site has been maintained.

E6.3 Temporary Signage Plans are presented in Appendix 'C'.

E6.4 Further to E6.1(c) and E6.1(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.

E6.5 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.

E6.6 The Contractor shall provide a Traffic Signage Foreman who will oversee the Contractors signage and all sub-contractors maintenance of signage.

E6.7 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.

E7. TRAFFIC MANAGEMENT

E7.1 Further to 3.7 of CW 1130:

E7.1.1 Traffic flow is to be maintained as per the Contract Drawings.

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

- E7.1.3 Flag persons may be necessary to maintain the flow of traffic during certain work operations, including paving and managing entrances for soft closure of Dugald Rd.
- E7.1.4 Should the Contractor be unable to maintain vehicular 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 24 hours notification to the affected residence or business and the Contract Administrator, prior to disruption of access.
- E7.1.5 Ambulance/emergency vehicle access must be maintained at all times.
- E7.1.6 Dugald Rd from McFadden Ave to Ravenhurst St will be closed for all traffic to accommodate the CIREAM and related paving process.
- E7.1.7 The Malteurop grain business near McFadden Ave must maintain their east approach for truck deliveries. The maximum duration that approach can be closed is three weeks and it must occur consecutively. Four weeks notice is required in advance of this closure, so they may adequately plan their operations.
- E7.1.8 Dugald Rd may be closed two times accommodate asphalt paving in the mill and fill section. The closures shall still accommodate small vehicles for residential access that are within the closed limits.
- (i) For lane at a time paving, two separate closures will be permitted.
 - (ii) The Contract Administrator would allow up to three closures if the Contractor elects to complete the top lift using echelon paving.
- E7.1.9 The Contractor is required to provide notices to the residents 48 hours before any closures required for asphalt paving.

E8. REFUSE AND RECYCLING COLLECTION

- E8.1 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 E8.2 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.
- E8.2 Collection Schedule:

Dugald Road and Residential Area south of Dugald – from Plessis Rd to Ravenhurst St.

Collection Day(s): **Thursdays**

Collection Time: **TBD**

Common Collection Area: **TBD**

- E8.3 No measurement or payment will be made for the work associated with this specification.

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. HYDRO SEED

DESCRIPTION

E12.1 Further to CW3520 this Specification covers the seed mix type and payment.

MATERIALS

E12.2 The seed mix shall be:

Seventy percent (70%) Fulfs or Nuttall's Alkaligrass (*Puccinellia* spp.)
Twenty percent (20%) Audubon or Aberdeen Creeping Red Fescue
Ten percent (10%) Perennial Ryegrass.

EQUIPMENT

E12.3 Scarification equipment shall be suitable for the area being scarified, shall be capable of scarifying the sub-grade to the specified depth and shall be accepted by the Contract Administrator. For confined areas a toothed bucket may be acceptable. For larger areas tilling equipment may be required.

CONSTRUCTION METHODS

E12.4 Preparation of Existing Grade

E12.4.1 Prior to placing topsoil, in areas to be seeded greater in width than 600mm, prepare the existing sub-grade by scarifying to a minimum depth of 75mm and to a maximum depth of 100mm to the satisfaction of the Contract Administrator.

E12.4.2 Scarification shall consist of breaking up and loosening the sub-grade.

MEASUREMENT AND PAYMENT

E12.5 Supply, placement and maintenance of Hydro Seed will be paid for at the Contract Unit Price per square metre for "Hydro Seed", measured as specified herein, which price shall be payment in full for supplying all materials and for completing all operations herein described and all other items incidental to the work included in this Specification. Payment for Hydro Seeding shall be in accordance with the following:

- (a) Fifty (50%) percent of quantity following supply and placement.
- (b) Remaining Fifty (50%) percent of quantity following termination of the Maintenance Period.

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 adjoined 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.

MEASUREMENT AND PAYMENT

- E13.11 Watermain and Water Service Insulation shall be measured on an area basis and paid for at the Contract Unit Price per square metre of “Watermain and Water Service Insulation”. The area to be paid for shall be the total square meters of watermain and water service insulation supplied and installed in accordance with this specification, accepted and measured by the Contract Administrator.

- (a) Excavation of the roadway subgrade in accordance with E13.6 will not be measured for payment and will be included in the payment for “Watermain and Water Service Insulation”.

E14. HYDRO-VAC OF EXISTING SHALLOW UTILITIES

DESCRIPTION

- E14.1 This specification is to provide clarity on payment for Hydro excavation during this project.
- E14.2 The Contractor is to provide 24 hours notice to the Contract Administrator so we can prepare to as-built the utility.

MEASUREMENT AND PAYMENT

- E14.3 Hydro-vac activities are incidental unless otherwise specific to the follow utilities.
- (i) Imperial Oil 200 Pipeline
 - (ii) Imperial Oil 250 Pipeline
 - (iii) 200 Hydro Gas Main
 - (iv) 100 Hydro Gas Main
- E14.4 If the Hydro-vac hole is required to be temporarily restored to accommodate traffic, restoration costs will be paid at the respective unit prices for those materials and placement.
- E14.5 Hydro-vac will be paid for by the hour at the Contract Unit Price for “Hydro-Vac of Existing Shallow Utilities”.
- E14.6 The hourly rate shall only be measured for time the machine is present on site.

E15. SUPPLYING AND PLACING BASE COURSE MATERIAL

DESCRIPTION

- E15.1 This specification amends how base course is paid for. It will be paid for per tonne and not cubic metre as per CW 3110-R22

CONSTRUCTION METHODS

- E15.2 Notwithstanding CW 3110 – R22, the Contractor shall prime the granular base course layer within one (1) calendar day of the completion of top granular base course layer.
- E15.3 The SET or rounding along the edges of the asphalt shall be a geometric transition between the cross-fall of the roadway and the ditch slope. It shall be compacted to form the appropriate round shape as per the drawings, in lieu of being formed over time due to erosion. Densities will not be taken on the SET. This methodology differs from the typical SET that is applied on highways.

MEASUREMENT AND PAYMENT

- E15.4 “Supplying and Placing Base Course Material – Base Course Material – Granular A Limestone” shall be paid for by the total number of tonnes of material supplied and installed, as measured on a certified weigh scale.
- E15.5 The Contractor shall provide hardcopy tickets and a digital file on a weekly basis to the Contract Administrator.

E16. ASPHALT PLACEMENT

DESCRIPTION

- E16.1 This specification provides additional direction on finishing the longitudinal asphalt joints and other details on asphalt placement for clarity.
- E16.2 The intention of this specification is to use machines and procedures that reduce the magnitude for longitudinal cold joints constructed on the project.

CONSTRUCTION METHODS

- E16.3 The Contractor's asphalt paving machine is to be capable of paving up to 4.7m wide with no bolt on attachment. This is to allow for paving of a 3.7m lane with a 1.0m shoulder simultaneously.
- E16.4 As the CIREAM section will be closed to traffic, the Contractor shall pave HMA to a maximum length of 700m at one time and then back up and pave the other adjacent lane, allowing for a warmer centreline joint.
- E16.5 The Contractor's Asphalt Superintendent shall meet with the Contract Administrator on site at least two days prior to paving to discuss the paving plan which includes truck access, direction of paving, application of glas-grid, application of tack coat, volume of anticipated asphalt for the next paving operations, finishing details and paving width.
- E16.6 Edges on new asphalt are to be protected with ramps. Rounded asphalt edges from temporary traffic are to be cut square prior to paving.
- E16.7 Transfer machines for asphalt placement are a requirement.
- E16.8 All tie-ins and approach are to be Type 1A asphalt.

MEASUREMENT AND PAYMENT

- E16.9 No additional measurement or payment will be made for this work.

E17. REVERSE CURB AND GUTTER

DESCRIPTION

- E17.1 This specification is further to CW3310-R19

CONSTRUCTION METHODS

- E17.2 The shape and orientation of the curbs are to follow the Contract Drawings.
- E17.3 The gutter thickness is proposed to be 180mm based on constructability. The gutter pan shall not be less than 150mm and does not have to exceed 200mm. The Contractor shall confirm the mould shape with the Contract Administrator prior to fabricating or procuring.

MEASUREMENT AND PAYMENT

- E17.4 "Reverse Concrete Curb and Gutter (150 mm reveal ht, Barrier, Integral, 600 mm width, 180 mm Plain Type 1 Concrete Pavement)" shall be measured by the lineal metre and paid for at the Contract Unit Price
- E17.5 "Reverse Concrete Curb and Gutter (120 mm reveal ht, mountable, Integral, 600 mm width, 180 mm Plain Type 1 Concrete Pavement)" shall be measured by the lineal metre and paid for at the Contract Unit Price.
- E17.6 "Reverse Concrete Curb and Gutter (10 mm reveal ht, mountable, Integral, 600 mm width, 180 mm Plain Type 1 Concrete Pavement)" shall be measured by the lineal metre and paid for at the Contract Unit Price.

E18. TEMPORARY ELECTRONIC VARIABLE MESSAGE SIGNS

DESCRIPTION

- E18.1 This specification provides clarification on how temporary variable message signs will be paid for and the expectations for durations, movement and provision of signs.

CONSTRUCTION METHODS

- E18.2 The Contractor shall place a VMS temporarily at each of the locations directed by the Contract Administrator.
- E18.3 The Contractor shall provide three (3) VMS.
- E18.4 The Contract Administrator will provide the Contractor with the messaging to be programmed. The Contractor is to assume the message is to be changed on each board at least twice during the project duration.
- E18.5 The Contractor is to assume that each board will require one relocation per sign during the project duration.
- E18.6 If more or less than three VMS are required the unit price will be adjusted by the corresponding ratio.

MEASUREMENT AND PAYMENT

- E18.7 "Temporary Variable Message Signs" shall be paid for by the week for the rental and placement of three (3) VMS.
- E18.8 Placement, removal, reprogramming as per E18.4 and relocations as per E18.5 are incidental to the unit prices.
- E18.9 Costs associated with provision of VMS following the date of Substantial Completion will not be measure or paid for.
- E18.10 In the event a sign is needed for less than a week at the start of the end of the project, the measurement shall be rounded up to a whole week.

E19. CONSTRUCTION LAYOUT AND AUTOMATED GRADE CONTROL REQUIREMENTS

DESCRIPTION

- E19.1 This specification describes what construction layout the Contract Administrator will perform for the Contractor, what electronic information will be provided to the Contractor and what construction methods are to be executed using automated grade control by the Contractor.

CONSTRUCTION METHODS

- E19.2 The Contract Administrator will provide the following;
- (a) Electronic files for the median, gutter lanes and auxiliary lanes so the Contractor can produce their own surface. The surface is intended to be used for automated control with excavation and placement of sub-base and base course.
 - (b) Grade and alignment stakes for all new excavations related pavement widenings.
 - (c) Grade and alignment stakes for all curbs, sidewalks and concrete works.
 - (d) Grade and alignment stakes for all underground works.
 - (e) Stationing stakes for the mainline alignment every 20m.
 - (f) Blue tops will be provided for all curbs.
 - (g) Milling grades will be provided for mill and fill sections.

- (h) Areas in the mill and fill section that require an initial scratch coat will be marked out.
- (i) Following the CIREAM process, new profiles will be provided.
- (j) Grade and flashing will be provided on all curbs for final asphalt elevation.
- (k) Grades will be painted at each tie in.

E19.3 The Contractor Administrator will use GPS equipment to check the accuracy of the automated Contractor equipment and will provide timely feedback.

E19.4 The Contractor is to use a ski for asphalt paving. Grades will be painted on the prepared surfaces prior to asphaltting and between lifts.

E19.5 The Contractor shall use a stringline to aid in painting out the edges of asphalt to be paved for each lift.

MEASUREMENT AND PAYMENT

E19.6 Automated grade control setup and execution is incidental to the Contractor's work and no measurement or payment will be made.

E20. CIREAM

DESCRIPTION

E20.1 The work involved in the CIREAM will be the reclamation of the existing bituminous travel surface (2 - paved lanes). The depth of the recycle shall be 130mm.

E20.2 All resulting CIREAM material shall be relayed to a width 3.7m each side of center line as shown in the drawings.

E20.3 The following specifications shall apply to all requirements for cold in-place recycling of existing asphalt pavement; sizing, adding, and mixing of asphalt cement, water (if required); and spreading and compacting the CIREAM mix.

DESIGN AND SUBMISSION REQUIREMENTS

E20.4 Mix Design Requirements

E20.4.1 Preparation and submission of CIREAM mix design for approval to the Contract Administrator is the responsibility of the Contractor.

E20.4.2 The mix design shall be carried out in accordance with the Wirtgen Cold Recycling Manual. Mix design work shall be completed by a laboratory fully qualified to conduct CIREAM mix designs with use of foamed asphalt.

E20.4.3 For mix design purposes, prior to commencing the work, the Contractor shall obtain samples that are representative of the material that will be produced during the milling operation. These samples shall be used, along with any corrective aggregate and additive, to establish the design rate of foamed asphalt as a percent by mass of the reclaimed asphalt pavement. The design rate of the foamed asphalt shall be a minimum of 1.0%

E20.4.4 The CIREAM mix shall meet the following physical requirements of Table 1:

Table 1 – CIREAM Physical Requirements

Property	Minimum Requirement
Dry Tensile Strength at 25C	250 kPa
Wet Tensile Strength	125 kPa
Tensile Strength Ratio (TSR)	50%

Air Void Content	9-11%
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E20.5 Submission Requirements

E20.5.1 The mix design shall be submitted to the Contract Administrator a minimum of seven (7) days prior to the start of CIREAM operations. All costs incurred for the CIREAM mix design formulation are the responsibility of the Contractor. The Contractor shall not commence CIREAM operations on the project prior to receiving the Contract Administrator's written notice that the CIREAM mix design has been approved.

E20.5.2 The mix design shall include the following:

- (a) Information on the type of PGAC.
- (b) The asphalt content, aggregate, gradation and coarse aggregate crush count of the RAP.
- (c) The percent by mass of expanded asphalt in the CIREAM, referred to as the design rate.
- (d) The recommend PGAC temperature for foaming, the half life, the expansion ratio and the percent water for foaming.
- (e) The optimum moisture content and the mix design bulk relative density.
- (f) Recovered penetration for the binder of the existing pavement.
- (g) The design addition of corrective aggregate and/or additive, if used.
- (h) The amount of water to be added to the mix.
- (i) The maximum field rate adjustment allowed to the design rate without adverse affects to the mix.
- (j) The mix design properties to be used as a reference:
 - (i) dry tensile strength at 25C = 250 kPa
 - (ii) wet tensile strength = 125 kPa
 - (iii) tensile strength ratio = 50%
 - (iv) air voids = 9-11%

E20.5.3 At the start of production, the target density of the CIREAM shall be established by the Contractor. The target density shall be provided to the Contract Administrator within 3 Days of obtaining the sample from the roadway.

MATERIALS

E20.6 Bituminous Stabilizer

E20.6.1 Unless otherwise approved by the Contract Administrator the type of bituminous stabilizer to be used by the Contractor shall be a PG 58-28 or equivalent asphalt cement which shall also be used as part of the foaming process.

E20.6.2 At the request of the Contractor the Contract Administrator will consider the use of an alternate bituminous stabilizer of emulsified asphalt for the CIREAM providing the reclaimed asphalt pavement material is compatible with the approved Mix Design.

E20.6.3 If approved the Contract Administrator will monitor the resulting CIREAM mat to verify acceptable standards, failing to meet these standards the Contractor shall revert to the foamed asphalt process using the specified asphalt cement.

E20.6.4 No additional payment for emulsion substitution will be made as it will be included in the unit price for "CIREAM".

E20.7 Reclaimed Asphalt Pavement (RAP)

E20.7.1 Reclaimed asphalt pavement material after processing shall have the following gradation

- (a) 37.5mm Sieve Size – 100% passing
- (b) 25mm Sieve Size – 90-100% passing

E20.8 CIREAM Additive

E20.8.1 When required by the mix design, a Portland cement additive shall be incorporated into all CIREAM mixes at a rate of 1.0 percent by weight of reclaimed pavement material. Other additional rates, to a maximum of 1.5 percent will be allowed if the material characteristics are demonstrated to have been improved in the mix design process. Portland cement shall be Type GU and meet the requirements of CSA 3000 Cementitious Materials Compendium. The incorporation of the Portland cement additive shall be at the Contractor's own expense.

E20.9 Corrective Aggregate

E20.9.1 Corrective aggregate is only to be used if specified within the contract documents or the mix properties are demonstrated to be improved. Corrective aggregate may be required for the mix to meet the gradation requirements or to improve the mix design properties. The gradation and amount shall be determined by the Contractor.

E20.9.2 Corrective aggregates, if required shall be compensated for at a negotiated rate and paid as extra work.

E20.9.3 Any corrective aggregate shall be distributed directly in front of the recycling train. The methods used to determine the addition rate of corrective aggregate in accordance with the mix design are subject to the approval of the Contract Administrator.

E20.10 Water

E20.10.1 The Contractor shall supply and haul all water required for the construction and maintenance of this work. The water shall be clean and free from injurious amounts of oil, alkalis, salts, organic matter or other deleterious materials. All operations for the supply and hauling of water and that incidental to shall be at the contractor's own expense.

EQUIPMENT

E20.11 Recycling Train

E20.11.1 A single or multi-stage recycling train is required. This is a train with milling, sizing, and mixing units, used to process the material.

E20.11.2 The recycling train shall include the following:

- (a) A self-propelled cold milling unit with a cutting drum capable of reclaiming a full 3.7m lane width of asphalt pavement to the depth specified in the Drawings in a single pass.
- (b) This machine shall have automatic depth and cross-slope controls and maintain a constant cutting depth. The automatic depth controls shall maintain the cutting depth to within plus or minus 6mm of the depth shown on the Drawings;
- (c) The recycling train shall be capable of processing the reclaimed asphalt pavement so that all reclaimed material passes the 37.5mm sieve
- (d) An aggregate feed system that measures and regulates either the mass or volume of reclaimed material being added into the mixing unit prior to the addition of the foamed asphalt. If the train is equipped with a scale, it shall be calibrated to the manufacturer's tolerance at the start of the Contract and when requested by the Contract Administrator;
- (e) An asphalt cement expansion system capable of optimum expansion and an injection system capable of injecting and blending foamed asphalt uniformly throughout the reclaimed material in the required amount within 0.2% by mass of the reclaimed material feed;
- (f) A means of monitoring and controlling the addition of water;

- (g) A mixing unit equipped with a device capable of producing a uniform and thoroughly blended CIREAM mix.
- (h) A temperature booster unit capable of maintaining required oil temperatures until it is utilized in the foaming process

E20.12 Placing Equipment

- E20.12.1 Placing of the CIREAM mix shall be carried out by means of a mechanical paver capable of spreading the mix evenly in front of the screed in one continuous pass to the specified cross fall and grade. The paver shall be equipped with distributing augers for the full width to be paved. The paver shall have a high-density compaction screed capable of achieving 89 to 94 percent of targeted compaction on the full width of mix placed.
- E20.12.2 When a pick-up machine is used to feed the windrow into the paver hopper, the machine shall be so operated that the entire windrow to the underlying surface is picked up.

E20.13 Compaction Equipment

- E20.13.1 The Contractor shall select the appropriate compaction equipment, which shall consist of a minimum of three (3) rollers, to achieve the required compaction of 96% of the laboratory bulk relative density.

E20.14 Straight Edge

- E20.14.1 A three (3) meter long commercially made metal straight edge is required for determining conformance to the surface tolerance requirements. When requested, the Contractor shall provide the Contract Administrator with the use of the straight edge.

CONSTRUCTION

E20.15 General

- E20.15.1 CIREAM shall be spread and compacted to the specified width; thickness and cross slope as shown in the detailed drawings.
- E20.15.2 All deleterious and loose milled material shall be removed from the milled surfaces at longitudinal and transverse joints after reclaiming operations are completed and before placing the CIREAM mix.
- E20.15.3 Overlap between successive passes of the recycling train shall be a minimum of 100mm.
- E20.15.4 The Contractor shall be responsible for managing and disposing of any excess CIREAM or reclaimed pavement material.
- E20.15.5 No separate payment will be provided to the Contractor for the disposal of excess materials unless otherwise provided in the Drawings.
- E20.15.6 At the start of production and whenever the existing pavement material significantly changes composition, the laboratory bulk relative density of the CIREAM shall be verified by the Contractor with material reclaimed from the roadway.

E20.16 Operational Constraints

- E20.16.1 The work shall not be carried out when the ambient temperature is less than 10 °C and the surface shall be clean and free of standing water. CIREAM shall not proceed during periods of rain. After September 1st, written approval shall be obtained from the Contract Administrator prior to CIREAM paving.
- E20.16.2 The wearing surface shall not be placed on the CIREAM mat until the following requirements have been met:
 - (a) The CIREAM has been allowed to cure for a minimum of 3 days
 - (b) The CIREAM meets the physical acceptance criteria

- (c) The average in-situ moisture content of the CIREAM is 3% or less with no test greater than 4% immediately prior to placing the wearing surface
- (d) The specified density has been achieved during quality assurance or quality control testing with follow up on core results

E20.16.3 The wearing surface shall be placed within 15 Days of placing the CIREAM mat, provided the CIREAM mix meets the requirements of this specification. A tack coat shall be applied to the CIREAM mat prior to paving.

E20.16.4 All traffic, including construction traffic, shall be kept off the freshly placed CIREAM mat until it is able to carry traffic without damage. The Contractor shall be responsible for repair of the damaged CIREAM mat.

E20.17 Trial Section

E20.17.1 During the first day of production of CIREAM the Contractor shall demonstrate to the Contract Administrator the ability to successfully carry out CIREAM according to this specification by placing a trial section within the Contract limits.

E20.17.2 The Contractor shall have onsite personnel experienced in CIREAM work to monitor the trial section, advise on suitability of mixed material, bituminous stabilizer dispersion within the mixed material, moisture control within mixed material, compaction and surface finish. Bulk applications rates are to be determined for bituminous stabilizing agent, water and corrective aggregate (if required) and thickness checks completed for processing depths.

E20.17.3 The trial section shall be one lane width and 100 m in length.

E20.17.4 The Contract Administrator will allow the Contractor to continue the CIREAM work based on an acceptable visual assessment of the trial. When the CIREAM is rejected by visual assessment, the Contractor shall repeat additional trial sections until the CIREAM meets the requirements of this specification. The Contractor shall use the same equipment materials, and construction methods for the remainder of the CIREAM operations. If adjustments are made, the Contractor shall produce a new trial section.

E20.17.5 The Contractor shall be responsible for the repair, removal, or replacement of an unacceptable trial section.

E20.18 Mixing

E20.18.1 The foamed asphalt shall be added at the design rate. The rate of addition of foamed asphalt shall be field adjusted as required to within 0.2% of the design rate or to the maximum field rate adjustment allowed to the design rate according to the mix design, whichever is less, to produce a uniformly coated CIREAM mix that can be compacted to the required density.

E20.18.2 The expanded asphalt cannot be less than 1%

E20.18.3 The Contractor may add water in a controlled manner to facilitate uniform mixing.

E20.18.4 The foamed asphalt cement must be applied at a minimum temperature of 170 C to achieve the desired foaming affect.

E20.19 Compaction

E20.19.1 The CIREAM shall be compacted to a minimum of 96% of the laboratory bulk relative density as determined by the submitted job mix formula, ASTM D1188 – Bulk Specific Gravity/Density of Compacted Bituminous Mixtures Using Paraffin-Coated Specimens.

E20.19.2 CIREAM that cannot be compacted to the required density shall be removed and replaced according to Table 2.

E20.19.3 CIREAM compaction shall also be monitored through use of the target density as determined by a rolling control strip of a minimum 100m in length. The Contractor shall select a compaction pattern which will set the minimum number of passes to be performed. The Contract Administrator will then monitor the wet density of each additional pass using

the nuclear density meter. The target density shall be established when additional passes result in an increase of wet density of less than 16kg/m³.

E20.19.4 The laboratory bulk relative density and target density shall be re-established if there is a significant change in material composition and uniformity

E20.20 Surface Appearance

E20.20.1 The compacted CIREAM mat shall be smooth and conform to the cross fall and grade specified in the Drawings. The surface of the CIREAM mat shall be of uniform texture and free of segregation, longitudinal streaks, fat spots, oil spills, roller marks, and other defects.

E20.21 Sampling

E20.21.1 All samples, including those handled by a commercial carrier, shall be accompanied by a sample data sheet and any additional documents as specified elsewhere in the Contract Documents. Where not specified or not included on the sample data sheet, samples shall be delivered with a transmittal form identifying the following information:

E20.21.2 Holes formed from the removal of cores shall be free of excess moisture and deleterious material. The holes shall then be filled and compacted with compatible bituminous material approved by the Contract Administrator.

QUALITY ASSURANCE

E20.22 General

E20.22.1 Quality Assurance testing will be conducted by the Contract Administrator.

E20.22.2 The Contract Administrator shall reject all visually defective material, mix, or work according to Table 2. Such defective material, mixture, and work shall not be incorporated into the finished work.

E20.22.3 Quality assurance samples shall be used to determine compliance for tensile strength, moisture content and compaction.

E20.22.4 Acceptance criteria shall be based on the lot mean computed from quality assurance test results for each segment within the lot.

E20.22.5 If a tested sample fails to meet the Contract requirements, the Contractor shall be notified of the failure by the Contract Administrator within 24 hours of the Contract Administrator receiving the information. Refer to Table 2 for required repair.

E20.23 Repair of Unacceptable Cold In-Place Recycling Mat

E20.23.1 A CIREAM mat that is unacceptable shall be repaired or removed and replaced as specified in Table 2.

E20.23.2 Repairs shall be for the full width of recycling to the depth specified in Table 2. Removal shall be for the full depth and lane width of recycling. Reprocessing may be considered as a repair method, upon submission of a proposal by the Contractor and approval by the Contract Administrator.

E20.23.3 No payment will be provided for any materials used for repair including oil.

Table 2 – Unacceptable CIREAM and Required Repairs

Distress	Severity	Required Repair
Raveling/Coarse Aggregate Loss (Note 1)	Very Slight to Slight	No action required.
	Moderate to Severe	Mill 50mm and replace with an acceptable
	Very Severe	Remove all CIREAM and replace with an
	Slight to Medium (Note	No action required.

Segregation (Note 1)	Severe (Note 1)	Mill 50mm and replace with an acceptable
Compaction is not acceptable.	n/a	Remove all CIREAM material in the sub lot represented by the test and replace with an acceptable binder
Dry Tensile Strength, Wet Tensile Strength or Tensile Strength	n/a	Remove all CIREAM in the sub lot represented by the test and replace with an
Surface Tolerance	n/a	Remove all CIREAM material in the sub lot represented by the test and replace with an

Notes:

1. Distress and severity definitions according to the Manitoba Infrastructure's Surfacing Condition Rating Manual.
 - A. The HMA shall be placed in compacted lift thicknesses between 40 and 75mm.
 - B. Removals shall be for the full depth and lane width of recycling.
 - C. Repairs shall be for the full width of recycling to the depths indicated.
 - D. Reprocessing may be considered as a repair method upon submission of a proposal by the

E20.24 Acceptance Criteria for Surface Tolerance

E20.24.1 After compaction, the surface of the CIREAM mat shall be free from deviations exceeding 10mm, as measured in any direction with a 3m straight edge. Refer to Table 4 for required repair.

E20.25 Acceptance Criteria for Moisture Content

E20.25.1 The moisture content shall be determined according to ASTM 1461. The mean moisture content for each lot shall be less than 3.0% with no sub lot moisture content exceeding 4.0%. A lot of CIREAM material with mean moisture content above 3.0% may be accepted at the discretion of the Engineer.

E20.26 Acceptance Criteria for Compaction

E20.26.1 The compaction of the CIREAM mix shall be determined according to ASTM D1188. Each Lot of CIREAM mix shall be compacted to a minimum mean of 96.0% of the laboratory bulk relative density established for the mix with no segment result falling below 95.0%. Refer to Table 1 for required repair

MEASUREMNT AND PAYMENT

E20.27 Measurement of the area of accepted CIREAM mix placed shall be made in square metres.

E20.28 Payment will be provided at the unit price bid per square metre for "CIREAM" and shall be full compensation for all labor, sampling and quality control, equipment and material to do the work, including the supply of corrective aggregate (if required), Portland cement or other additive (if required), water, reclamation of existing bituminous pavement, disposal of excess CIREAM material, HMA placed in areas inaccessible to the reclaiming equipment and all incidental work described under the terms for "CIREAM".

E20.29 All Bidder are to assume that 1% Cement and 2.5% PG Asphalt is required for the mix design.

E21. CONCRETE CULVERT STRAPS

DESCRIPTION

E21.1 This specification describes the installation of strapping on the last three joints at the end of the of a culvert that is exposed to a ditch. These are to prevent separation of the pipes.

MATERIALS AND EQUIPMENT

- E21.2 The Contractor shall provide a specification for galvanized steel straps and wedge anchors for the Contract Administrators approval.

CONSTRUCTION METHODS

- E21.3 The Contractor shall use galvanized steel tie straps to secure the outer two joints at the end of the catch basin lead installation that is daylighted. The straps shall be anchored at ten and two o'clock positions. Holes for the wedge anchors shall be drilled to the appropriate depth and diameter.
- E21.4 Wedge Anchor Fasteners shall be 9.5mm in diameter, 69mm in length. The 9.5mm hole depth shall be at least 38mm and 16 required per installation.

MEASUREMENT AND PAYMENT

- E21.5 No measurement or payment will be made for the supply and installation of concrete joint straps.

E22. ASPHALT PAVEMENT WORKS – SPECIAL PROVISION

- E22.1 Appendix "B" – Special Provision for Asphalt Pavement Works shall replace the City of Winnipeg Standard Construction Specification CW 3410 – Asphaltic Concrete Pavement Works for the Tender.

E23. PREPARATION OF EXISTING ROADWAY

DESCRIPTION

- E23.1 This specification aims to clarify the scope of work to be included in the preparation of existing roadway and aims to expand on CW 3150 of the latest revision.
- E23.2 Preparation of existing roadway for this project is specific to the existing granular shoulders in the Mill and Fill and CIREAM work areas.
- E23.3 The existing granular shoulders are steeper than 2% and go up to 6% cross fall. The shoulder need to be scarified, benched and built-up with Granular Base Course to allow for paving of the shoulders.
- E23.4 There is a history of slope failures along Dugald Rd under its current configuration. Generally, vehicle loading on the top of slopes, at the edge, and against an existing steep ditch slope will result in an inadequate Factor of Safety for slope stability. This is most apparent within the Mill and Fill Section. As part of this project, slopes will be adequate post construction in the Reconstruction sections and the CIREAM sections. There will be no ditch work in the Mill and Fill section, therefore the Factor of Slope stability in that section will not be increased.

MATERIALS AND EQUIPMENT

- E23.5 The Contractor must use appropriately sized equipment when scarifying, grading, placing and compacting the shoulders.

CONSTRUCTION METHODS

- E23.6 The Contractor shall prepare a suitable construction methodology for preparing the shoulders, placing and compacting the granular base course.
- E23.7 The Contractor cannot damage the new HMA mat when placing and constructing the shoulder SET and the Contractors methodology must demonstrate this.

E23.8 As the existing shoulders are approximately 3.0m and the new paved shoulders are 1.0m, there should be adequate room beyond the granular rounding to retain any existing granular that was scarified or benched within the Mill and Fill sections.

E23.9 If there is excess existing granular material resulting from the roadway surface preparation process in the CIREAM section that needs to be hauled, it will be paid for by the cubic metre under "Excavation".

MEASUREMENT AND PAYMENT

E23.10 "Preparation of Existing Roadway" will be paid for on a square metre basis and shall include scarifying the existing surface and correcting the existing shoulder cross-fall, so it is prepared for a uniform thickness of leveling and/or structural base course.