

Bid Documents for

Township of Norwich

Haight Municipal Drain Improvement

Contract No. 300057028.0000

September 2025

Prepared by:

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Woodstock ON N4S 3C4 CANADA

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Haight Municipal Drain Improvement Township of Norwich

| <u>Tender Summary</u> | | |
|--|--|---|
| Issue | Project Particulars | Document Reference |
| Contract No. | 300057028.0000 | - |
| Owner | Township of Norwich Contact: Dirk Kramer, Drainage Superintendent | A.1.1 and A.7.5 |
| Contract Administrator | R.J. Burnside & Associates Limited Contact: Chris Thompson | A.1.2, A.1.3 |
| Tender Closing Date | Friday, September 26, 2025 | A.7.5 |
| Tender Closing Time | 1:00:00 p.m. (13:00 hrs.) | A.7.5 |
| Estimated Tender Value | \$298,470 | (See Engineer's Report) |
| Certified Cheque Required | Yes | A.10.1 |
| Amount of Certified Cheque | \$29,847 | A.10.1 |
| Bid Bonding | 10% of bid price | A.10.2; A.16.1 |
| Required Insurance Amount | \$5,000,000.00 (CGL and Auto) | A.11.1, D.1.2, GC 6.03.02.01 |
| Parties to be named as Co-insureds | Township of Norwich | A.11.1 and D.1.2 |
| | R.J. Burnside & Associates Limited | |
| | County of Oxford | |
| Traffic Plan Required & Submission Deadline (Owner and Contract Administrator) | YES – Submission 10 days prior to work commencement. Approval required prior to work commencing. | D.1.7; E4.6; E.4.8; SP6, SP8 |
| Reference Documents | Letter of advice 24-HCAA-02490 Permit No. LPRCA-40/25 | Reference Documents |
| Required Work Period Completion Date | - | D.1.1 |
| Restricted Timing Windows | In accordance with specific conditions of DFO Letter of Advice and coordination with the LPRCA No in water works between March 15 and July 15 | Reference Documents |
| General Conditions of Contract | OPSS.MUNI.100 (November 2024) | C.2.1 |
| Warranty Holdback | Larger of 2% of Contract Price or \$1,000 | G - Article III (b) iii, GC 8.02.04.05 |
| Pre-Construction Meeting | Prior to commencement of work | F - Special Provisions |
| Notice of Final Inspection | 2 days prior to meeting | F - Special Provisions |
| Warranty Period Required | 1 (one) year from Declaration of Substantial Completion | GC 7.16.02 |

Township of Norwich
Haight Municipal Drain Improvement
Contract No.: 300057028.0000

Index to Bid Documents

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Document A

Instructions to Bidders

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1 THE WORK

- 1.1 The work (“Work”) is the improvement of the existing Haight Municipal Drain, located at Lot 9, Concession 2, proceeding east to its outlet in Lot 7, Concession 3, Township of Norwich, County of Oxford. (“Place of the Work”) for Township of Norwich (“Owner”), as is more particularly described in the Bid Documents (as defined in Section 3.1 of these Instructions to Bidders) and Contract (as defined in Section 3.2 of these Instructions to Bidders).
- 1.2 The firm of R.J. Burnside & Associates Limited is the “Contract Administrator” who will be administering this request for Bids and administering the Contract that may be awarded as a result of this request for Bids.
- 1.3 All inquiries regarding this Work, or this request for Bids, are only to be directed in writing to the Contract Administrator’s representative as follows:

Name: Chris Thompson
Address: 35 Perry Street, Woodstock, ON N4S 3C4
Telephone: 226-888-5649
Email: chris.thompson@rjburnside.com

2 WORK AND BIDDERS

- 2.1 The scope of Work is more particularly described in the Bid Documents.
- 2.2 The Owner is requesting Bids (as defined in Section 7.2 of these Instructions to Bidders) in connection with the Work from qualified contractors (in the case of an advertised tender), or from the pre-qualified or invited contractors listed below (if applicable). Each contractor who responds to this request for Bids is defined as a Bidder (collectively, the “Bidders”).

3 BID DOCUMENTS AND CONTRACT

3.1 Bid Documents

- .1 The Bid Documents consist of:
- (i) Document A – Instructions to Bidders;
 - (ii) Document B – Bid;
 - (iii) the drawings and specifications listed in Document E (collectively, the “Drawings and Specifications”)
 - (iv) the Contract;

- (v) all Addenda (as defined in Section 6.4 of these Instructions to Bidders) that were issued in writing by the Owner or Contract Administrator prior to the Bid Closing Time (as defined in Section 7.5 of these Instructions to Bidders).
 - .2 The Owner's Purchasing By-law and procurement policies and procedures (if applicable) are incorporated into the Bid Documents by reference and shall take priority over the other provisions in these Instructions to Bidders with respect to procurement policies and procedures to be followed by the Owner during the Owner's consideration and selection process. Copies of the Owner's Purchasing By-law and procurement policies and procedures (if applicable) are available for review by the Bidders at the offices of the Owner.
- 3.2 The Contract for this request for Bids ("Contract") consists of:
- .1 Agreement between Owner and Contractor listed in Document G;
 - .2 Documents describing clarifications, if any are requested and accepted by the Owner following the Bid Closing Time;
 - .3 General Conditions of Contract, (OPSS.MUNI 100, November 2024), as modified by the Supplemental General Conditions;
 - .4 Supplemental General Conditions listed in Document C;
 - .5 the Drawings and Specifications (Document E), and the General Requirements (Document D);
 - .6 Addenda that were issued in writing by the Owner or Contract Administrator prior to the Bid Closing Time;
 - .7 Instructions to Bidders (Document A) and Bid (Document B); and
 - .8 Special Provisions listed in Document F.
- 3.3 One copy of the Bid Documents for bidding purposes will be issued to each Bidder by the Contract Administrator (or the Owner, if applicable) at the address set out in Section 1.3 provided that the Bidder has provided the Contract Administrator with its full name, address, telephone and facsimile numbers, e-mail address and contact person.
- 3.4 In accordance with Section 3.3, Bid Documents must be obtained from the Contract Administrator (or the Owner if applicable), and Bidders shall provide the required fee (if applicable) and information to the Contract Administrator. Bidders not meeting these criteria are subject to disqualification at the Owner's sole and absolute discretion.
- 3.5 Additional sets of the Bid Documents may be obtained by Bidders, at a cost, and subject to available printing time, by contacting the office which issued the original set of Bid Documents.
- 3.6 The Contract Administrator may issue notices to each Bidder at the applicable address they have provided pursuant to Section 3.3.

4 EXAMINATION OF THE PLACE OF THE WORK

- 4.1 The Bidder is fully responsible for obtaining all information required for the preparation of their Bid and, prior to submitting a Bid, the Bidder shall have visited and carefully examined the Place of the Work and the surrounding area in a reasonable and prudent manner and satisfied itself as to the scope and character of the Work and all conditions and information affecting the Work and how the Work is to be completed, including, without limitation, the nature and location of the Work, working areas, storage areas, local features including private property and utilities, access to and at the Place of the Work, weather conditions and any other factors which may influence the performance of the Work and/or the pricing of the Work.
- 4.2 In addition to the Bid Documents, the following reference documents (collectively, the “Reference Documents”) shall also be issued to each Bidder by the Contract Administrator (or the Owner, if applicable) at the address set out in Section 1.3, provided that the Bidder has provided the Contract Administrator with the fee and information required by Section 3.3:

- **[Note: List reference documents (e.g., geotechnical report)]:**

The Reference Documents are provided for reference and information only and do not form part of the Bid Documents or Contract. The Owner and the Contract Administrator make no representation or warranty with respect to the accuracy or completeness of the Reference Documents and the Bidder is responsible for obtaining its own independent legal and technical advice with respect to the Reference Documents. Any comments in the Reference Documents on potential construction problems and possible methods are intended only for the guidance of the design engineer and are not to be relied upon by the Bidder. Therefore, the Bidders should make their own interpretations, and draw their own conclusions, on the information presented in the Reference Documents. Without limiting the generality of the foregoing, the Bidders will make their own assessments as to how the subsurface conditions may affect the Work, their proposed operations and pricing. The number of boreholes and/or test pits on which the Reference Documents are based may not be sufficient to determine all the factors that may affect construction methods, costs and performance of the Work. No claim for extras relating to work required to deal with conditions anticipated in the soils report will be entertained. The Bidder may, at its costs, excavate test pits or undertake other investigations to explore the existing conditions, provided that the excavation of test pits must be pre-approved by the Owner in writing.

5 PRE-BID MEETING

5.1 Not Applicable.

6 DISCREPANCIES, OMISSIONS, AMBIGUITIES, COMMENTS, AND ADDENDA

- 6.1 The Bidder shall review information furnished to it by or on behalf of the Owner (including, without limitation, the Bid Documents) in a reasonable and prudent manner and satisfy itself that they (including, without limitation, the scope of the Work) are complete and clear.
- 6.2 Bidders finding discrepancies, omissions, errors, departures from good practice and ambiguities, or having other questions or comments in respect of the Bid Documents or any other information furnished to it by or on behalf of the Owner or having any doubt as the meaning of the Bid Documents or any other information furnished to it by or on behalf of the Owner (including, without limitation, any uncertainty as to the proper manner of completing the Bid) shall notify the Contract Administrator immediately in writing (but not later than four (4) days before the Bid Closing Time), by fax or email only using the contact information of the Contract Administrator set out in Section 1.3 of these Instructions to Bidders.
- 6.3 The Owner reserves the right to distribute copies of any or all notices which it receives from the Bidders and the Owner's responses to such notices to all Bidders.
- 6.4 Prior to the Bid Closing Time, the Owner may change or add to any provision or part of the Bid Documents at any time or times (including, without limitation, appendices, supplemental information and other documents). Any changes or additions to the Bid Documents will be issued in writing by the Contract Administrator as a formal Addendum (collectively, the "Addenda" and individually, the "Addendum") to those Bidders who have provided the Owner with the information required by Section 3.3. In the Addendum, the Owner may, having regard to the circumstances, extend the Bid Closing Time. The Owner and Contract Administrator will not be responsible for oral explanations or instructions; any such oral explanations or instructions do not alter the Bid requirements or Bid Documents and should not be relied upon by the Bidders.
- 6.5 Bidders are responsible for ensuring that they have received all Addenda issued prior to the Bid Closing Time through contacting the bid issuing office for confirmation, or through other means.

7 SUBMISSION OF BIDS

7.1 In accordance with Section 7.5 of these Instructions to Bidders, Bidders shall deliver one (1) original of the Bid in a large sealed opaque envelope that should be clearly marked as Haight Municipal Drain Improvement 300057028.0000, and with the name and address of the Bidder.

7.2 The bid for the Work (the “Bid”) shall be comprised of the following:

- .1 Bid Form;
- .2 the Security (if applicable, and as defined in Section 10.1 of these Instructions to Bidders);
- .3 Appendix “A” – List of Bid Documents;
- .4 Appendix “B” – Subcontractors;
- .5 Appendix “C” – Schedule;
- .6 Appendix “D” – Residency;
- .7 Appendix “E” – Proposed Alternatives to the Work;
- .8 Appendix “F” – List of Experience; and
- .9 Appendix “G” – Schedule of Unit Prices

the forms of all of which are set out in Document B – Bid. In addition, Appendices “A” to “G”, inclusive, are also described in Section 20 of these Instructions to Bidders.

7.3 Bidder initiated alternatives:

- .1 Beyond the mandatory requirement to submit a price for the Work as specified, the Bidders have the option of submitting proposed alternatives to the Work (“Proposed Alternatives to the Work”) which:
 - (i) present economical, environmental or technical benefits;
 - (ii) are consistent with the requirements set out in the Bid Documents (including, without limitation, the Drawings and Specifications); and
 - (iii) still produce the desired end result.
- .2 Bidders shall submit Proposed Alternatives to the Work as Appendix “E” – Proposed Alternatives to the Work. Without limiting the generality of the foregoing, the Proposed Alternatives to the Work shall include, without limitation, the following:
 - (i) a complete description with drawings, specifications and other information;
 - (ii) the reason for proposed substitution;

- (iii) the differences between the specified work and the Proposed Alternatives to the Work and the necessary revisions to other work to accommodate the Proposed Alternatives to the Work;
- (iv) the amount by which the Bid Price will be increased or decreased; and
- (v) such other necessary information to permit an accurate analysis of the Proposed Alternatives to the Work.

.3 The Bidders understand that:

- (i) the Owner may accept any of the Proposed Alternatives to the Work and corresponding alternative prices in any order or combination, including all or none;
- (ii) the price adjustments due to the Proposed Alternatives to the Work will not be taken into account during the Bid evaluation process;
- (iii) Proposed Alternatives to the Work and the related price adjustments are open for acceptance by the Owner for the same period of time as the Bid;
- (iv) the Work and the contract price in the Contract shall reflect the Proposed Alternatives to the Work and related price adjustment, if any, accepted by the Owner at the time of Acceptance (as defined in Section 13.2 of these Instructions to Bidders);
- (v) acceptance of any Proposed Alternatives to the Work will not affect the date for Substantial Performance of the Work as set out in Document D; and
- (vi) acceptance of any Proposed Alternatives to the Work will not affect the list of Subcontractors set out in Appendix "B" – Subcontractors unless the Bidder specifically indicates a change to the list in the Proposed Alternatives to the Work and this change is accepted by the Owner.

7.4 All Bids must be legible, in paper form and filled out in ink or typewritten. No telephoned, facsimile or email transmissions of the Bid will be accepted. Bidders shall be solely responsible for the delivery of their Bids in the manner and time prescribed in these Instructions to Bidders.

- 7.5 Bids must be delivered to the following location:

Township of Norwich

285767 Airport Road
Norwich, ON N0J 1P0

Attention: Dirk Kramer, Drainage Superintendent

before **1:00:00 p.m** local time as displayed by the clock at such location on **Friday, September 26, 2025** (the date and time shall be the “Bid Closing Time”). The Owner may, in its sole and absolute discretion, extend the Bid Closing Time by issuing an Addendum.

- 7.6 Each Bid will be marked by the Owner with the time and date it was received. A Bid received after the Bid Closing Time will be disqualified and returned unopened.
- 7.7 The Bid is irrevocable by the Bidder submitting same and shall remain in effect and open for acceptance by the Owner for a period of ninety (90) days after the Bid Closing Time. Without limiting the generality of any other provision in the Bid Documents, the Acceptance of the Bid may take place at any time during such period of irrevocability. Except as expressly set out in these Instructions to Bidders, once submitted, a Bid may not be amended but if the Bid was submitted prior to the Bid Closing Time, such Bid may be withdrawn and a new complete Bid submitted prior to the Bid Closing Time. Where more than one (1) Bid is submitted by a Bidder prior to the Bid Closing Time, the last Bid to be received shall be deemed to have revoked and superseded any prior Bid by the applicable Bidder. Any new Bids must be submitted in accordance with the requirements of these Instructions to Bidders.
- 7.8 All costs and expenses incurred by the Bidders in connection with the Bids (including, without limitation, costs and expenses arising from involvement in any pre-qualification process conducted by the Owner, the preparation and submittal of the Bids, any clarifications requested by the Owner and visits to the Place of the Work) shall be borne by the Bidders and the Owner is not liable to pay for such costs and expenses or to otherwise reimburse or compensate the Bidders in connection with the Bids, provided that in the event the Owner breaches its obligations under this request for Bids, if any, or the Owner breaches its duty of care arising from this request for Bids, if any, the Owner may be responsible for the reasonable costs incurred by the Bidder in preparing its Bid, subject in any event to the limits in Section 17.2.

8 BID FORM AND BID PRICE

- 8.1 Bidders shall submit their Bids using the Bid Form and appendices (“Appendices”) described in Section 7.2 of these Instructions to Bidders. All sections of the Bid Form, including all applicable Appendices which are required by these Instructions to Bidders to be submitted by the Bidders, should

be completed. Without limiting the generality of the foregoing, all blanks must be filled in and all entries for unit prices, lump sums, extensions and totals should be filled in, as appropriate (unless a 48 hour deferred item breakdown submission, or variation thereof, is allowed per Appendix G of Document B). Bids not completed in full may, in the sole and absolute discretion of the Owner, be disqualified. Apart from the completion of any blanks, a Bidder may not make amendments to the pre-printed wording of the forms comprising the Bid. Any such amendments made, whether on the face of such forms or contained elsewhere in the Bid may, in the sole and absolute discretion of the Owner, result in disqualification of the Bid.

- 8.2 The Bid Price shall include all applicable federal and provincial sales taxes, excise taxes, and other taxes, including the HST (referred to separately in Appendix “G”), customs and duties. The Bid Price shall be set out in the Bid Form.
- 8.3 The receipt of any and all Addenda modifying the Bid Documents must be acknowledged by the Bidder when completing Section 1.1 of the Bid Form.

9 BID SIGNING

- 9.1 The Bids shall be signed in accordance with the requirements of this Article 9. Note that the use of seals, while encouraged when available, is not mandatory.
- .1 Sole Proprietorship: Signature of sole proprietor in the presence of a witness who will also sign. Insert the words “Sole Proprietor” under the signature.
- .2 Partnership: Signature of all partners in the presence of a witness who will also sign. Insert the word “Partner” under each signature. Affix seal to each signature.
- .3 Limited Company: Signature of a duly authorized signing officer(s) in their normal signatures. Insert the officer’s capacity in which the signing officer acts, under each signature. Affix the corporate seal.
- .4 Joint Venture: Each and every party of the joint venture shall sign under their respective seals in a manner appropriate to such party as described above.

10 BID DEPOSIT AND CONTRACT SECURITY

- 10.1 All Bidders shall include with each Bid:

A certified cheque in an amount equal to \$29,847 made payable to the Owner as a Bid Deposit. This cheque shall be held by the Owner as Contract Security for the successful Bidder.

The bid deposits of all but the lowest two Bidders will be returned within thirty (30) days after the Bid closing date. The bid deposit of the lowest Bidder will be retained by the Owner as Contract Security until the Contract has achieved Substantial Performance. The other bid deposit will be returned once a Bid has been accepted and a Contract has been executed by the Owner and successful Bidder.

10.2 As an alternative to the requirements of Section 10.1 above, Bidders may choose to provide the following:

- .1 An executed Bid Bond issued by a surety authorized to transact the business of suretyship in Ontario, in the latest form approved by the CCDC which is valid for a period of ninety (90) days after the Bid Closing Time, representing not less than ten percent (10%) of the amount of the Bid Price (the “Security”); and
- .2 An executed Agreement to Bond issued by a surety authorized to transact the business of suretyship in Ontario, in the form attached as Attachment “A”, or similar standard industry form generally in keeping with Attachment “A”, which is valid for a period of ninety (90) days after the Bid Closing Time indicating that the Bidder is able to obtain from such surety a Performance Bond and a Labour and Material Payment Bond each for 100% of the Total Bid Price as required and in the form specified by the Contract. The cost of such Performance Bond and Labour and Material Payment Bond shall be included in the Bid Price.

10.3 Without prejudice to any other remedy or right which may be available to the Owner, the Security shall be forfeited if the Bidder refuses or fails to sign the Contract within five (5) days of being presented by the Contract Administrator with the Contract for execution.

11 INSURANCE

11.1 In addition to the other obligations elsewhere in the Contract, the successful Bidder shall be required to comply with the insurance requirements set out in Document D.

12 OWNERSHIP

12.1 All material and information delivered to the Owner by the Bidders in connection with or in relation to the Bids, including, without limitation, the Bids (collectively, the “Bid Materials”) shall be the sole and absolute property of the Owner.

13 BID OPENING

- 13.1 Bids will be opened by the Owner in public at the **Township of Norwich office** at a date and time to be advised by the Owner. Public release of bid information will be strictly limited to Bidders' names and, only if required by the Owner's Purchasing By-law and procurement policies and procedures (if applicable), total bid prices.
- 13.2 The acceptance ("Acceptance") of the Bid from the successful Bidder shall be made by the Owner only in writing. The Contract Administrator may, on behalf of the Owner, issue a written notice to the successful Bidder notifying them that Acceptance has occurred and their Bid has been accepted by the Owner.
- 13.3 The selected Bidder will be required to execute and return three (3) copies of the Contract within five (5) days of being presented by the Contract Administrator with the Contract for execution, while recognizing that upon Acceptance, the Contract will be formed and binding on the Owner and the Bidder. The Contract between the selected Bidder and the Owner shall be composed of the documents referred to in Section 3.2 of these Instructions to Bidders, as amended from time to time. Upon execution by Contractor and Owner copies will be distributed to all parties.

14 CLARIFICATION OF BIDS

- 14.1 The Owner reserves the right, at any time or times, following the Bid Closing Time, to request that any one or more Bidders clarify its Bid and such Bidders shall submit responses to such request within two (2) days following the date of the receipt of such request, or within such other time as the Owner may require. Without limiting the generality of the foregoing, the Owner may request clarification where any one or more Bidder's intent is unclear (including, without limitation, where there is an irregularity or omission in the information or documents provided by the Bidder in their Bid). The Owner may, in its sole and absolute discretion, choose to meet with one, some or all of the Bidders to clarify aspects of their Bids. The Owner may require Bidders to submit supplementary documents clarifying any matters contained in their Bids or the Owner may prepare a written interpretation of any aspect of a Bid (including, without limitation, meeting minutes) and seek the respective Bidder's acknowledgement of that interpretation.
- 14.2 The supplementary documents submitted by the Bidders which have been accepted by the Owner and the written interpretations prepared by the Owner which have been acknowledged by the relevant Bidders shall be considered to form part of the applicable Bids of those Bidders.

- 14.3 After the Bid Closing Time, only the supplementary documents submitted by the Bidders based on specific requests by the Owner for purposes of clarification which have been accepted by the Owner and written interpretations prepared by the Owner which have been acknowledged by the relevant Bidder shall be considered as additions to the Bid of the applicable Bidder, subject to the right of the Owner to correct or recalculate contained in Section 15.2 or the exercise of any other right or remedy available to the Owner.
- 14.4 The Owner is not obliged to seek clarification of any aspect of a Bid or to have discussions or other communication regarding clarifications with any Bidder.

15 SELECTION PROCESS AND RESERVED RIGHTS

- 15.1 The Owner's consideration and selection process will be based on which Bidder has provided a Bid which the Owner determines in its sole and absolute discretion to be the most beneficial to, and in the best interests of, the Owner. While price is an important factor in the consideration and selection process, the Owner may, in its sole and absolute discretion, consider many other factors during this process including, without limitation, the following, which are not listed in any particular order of importance or priority:
- .1 The contents of the Bid Form and Appendices "A" through "G";
 - .2 The Owner's Purchasing By-law and/or procurement policies and procedures, if any; and
 - .3 Any other factor which the Owner determines in its sole and absolute discretion to be in the Owner's best interests.
- 15.2 The following shall apply with respect to this request for Bids and the selection of a successful Bidder for the Contract:
- .1 The Owner reserves the right to, as the interests of the Owner may require, reject or retain for consideration and acceptance any or all Bids or part or parts thereof and waive informalities or irregularities without liability on the part of the Owner or the Contract Administrator;
 - .2 The lowest Bid Price or any Bid will not be necessarily accepted;
 - .3 The Owner may defer or cancel the project or this request for Bids for any reason (including, without limitation, the costs exceed the Owner's budget or approvals or permissions required from external agencies or authorities are not obtained or may not be obtained in accordance with the Owner's scheduling requirements);

- .4 In the event that a Bid contains an arithmetical error or inconsistency, the Owner reserves the right, in its sole and absolute discretion, to correct or recalculate the error, and to accept the Bid with the adjusted price. Without limiting the generality of the foregoing, any unit prices submitted by the Bidder will be deemed to represent the Bidder's intention and any amount calculated by multiplying estimated quantities by unit prices will be corrected accordingly; and
 - .5 Bids that, without limitation, are improperly prepared, not in compliance with all of the requirements of the Bid Documents, incomplete, unsigned, improperly signed, conditional, qualified, illegible, obscure or contain reservations, additions not called for, arithmetical errors, omissions, erasures, alterations, or irregularities of any kind may, in the Owner's sole and absolute discretion, be considered informal or irregular and may be rejected or disqualified or be retained by the Owner for consideration and acceptance.
- 15.3 In addition to any other right or remedy the Owner may have in connection with the Bid Documents, if one or more of the Bid Prices is in excess of the Owner's budget, the Owner may, in its sole and absolute discretion:
- .1 Enter into negotiations or discussions with one or more of the Bidders (even if such Bidder's Bid Price is not in excess of the Owner's budget) in connection with the Bid Documents (including, without limitation, the scope of Work, the amount of the Bid Price, the schedule to complete the Work and the Contract provisions) or clarify any outstanding issues and attempt to finalize the terms of the Contract. The negotiations and discussions may take place contemporaneously or consecutively and the Owner will have no obligation to enter into negotiations or have discussions on similar or other terms or offer any modified terms to any Bidder. If the negotiations or discussions are successful, the Owner and the selected Bidder will enter into the finalized form of Contract; or
 - .2 If at any time the Owner forms the opinion that a mutually acceptable Contract is not likely to be reached within a reasonable time, give the Bidder(s) written notice to terminate the negotiations and discussions, in which even the Owner may then open discussions with another Bidder(s), terminate the Request for Bids or otherwise act pursuant to its rights and remedies in connection with the Bid Documents.

Notwithstanding any negotiations or discussions between the Owner and the Bidders pursuant to this provision, the Bids shall remain irrevocable in accordance with the Bid Documents.

- 15.4 The Owner may exercise any one or more of its rights and remedies in relation to this request for Bids (including, without limitation, the rejection of Bids) without explanation to the Bidders.

16 BONDS

- 16.1 If the bonding alternative is selected, the successful Contractor will be required to provide a Performance and a Labour and Material Payment Bond, each in the amount indicated in Section 10.2 of this document, to the Owner with the executed Contract.

17 ACCEPTANCE OF CONDITIONS

- 17.1 By submitting a Bid to the Owner, Bidders acknowledge that they have read and agree to be bound by the Bid Documents.
- 17.2 The Bidder shall have no claim against, or entitlement to damages against, the Owner, the Contract Administrator or its advisors in connection with this request for Bids or otherwise in connection with this process (including, without limitation, claims or damages arising from (i) rejection of its Bid, (ii) cancellation of the Project, (iii) a breach, fundamental or otherwise, of the obligations under this request for Bids, if any, or (iv) breach of a duty of care arising from this request for Bids, if any) for an amount in excess of the reasonable costs incurred by the Bidder in preparing its Bid, and, in any event, the Bidder, by submitting a Bid, waives any claim for loss of profits if no Contract is entered into with the Bidder for any reason or under any circumstance whatsoever.

18 OWNER'S MATERIALS AND DISCLOSURE OF INFORMATION

- 18.1 All materials, drawings, specifications, information and documents obtained by, given to or made available to, the Bidder in connection with this request for Bids (including, without limitation, the Reference Documents and Bid Documents) (collectively, the "Owner's Materials") are not the property of the Bidders. The Owner's Materials shall not be used for any purpose other than replying to this request for Bids and the fulfillment of any subsequent Contract. The issue of the Owner's Materials does not confer a license or grant for any other purpose.
- 18.2 Upon request of the Owner, all of the Owner's Materials, in any form or media, shall be immediately returned to the Owner. The Owner and the Contract Administrator make no representation or warranty with respect to, and the Owner and the Contract Administrator accept no responsibility for, the accuracy or completeness of the Owner's Materials and the Bidder is responsible for obtaining its own independent legal and technical advice with respect to the Owner's Materials and making its own independent research and inquiries regarding all information contained in the Owner's Materials.

- 18.3 Bidders shall not discuss, disclose or communicate, directly or indirectly, any details pertaining to or in connection with their Bid to anyone not specifically involved in their Bid (including, without limitation, any other Bidder) without the prior written approval of the Owner. Without limiting the generality of the foregoing, each Bid shall be submitted without any connection, knowledge, comparison of figures or arrangement with any other Bidder and each Bidder will be responsible to ensure that its participation in this process is conducted fairly and without collusion or fraud.
- 18.4 Each Bidder and each shareholder, partner or joint venture member of the Bidder will not have any interest whatsoever in the Bid of any other Bidder, either directly or indirectly, nor will it enter into any arrangement, agreement or understanding before the Bid Closing Time that would have such a result nor will it have any other conflict of interest.
- 18.5 Bidders must not disclose any details pertaining to their Bid and the selection process, or the outcome thereof, in whole or in part to anyone not specifically involved in their Bid, without the prior written approval of the Owner. Without limiting the generality of the foregoing, Bidders shall not issue a news release or other public announcement or otherwise disclose any information pertaining to any details of their Bid, or the outcome thereof, or the selection process, in whole or in part, without the prior written approval of the Owner.

19 GOVERNING LAW

- 19.1 The Bid Documents shall be governed by the laws of Ontario and the federal laws of Canada applicable therein.

20 APPENDICES TO THE BID FORM

20.1 Appendix “A” to the Bid Form – List of Bid Documents

- 20.1.1 Appendix “A” to the Bid Form lists the Bid Documents.

20.2 Appendix “B” to Bid Form – Subcontractors

- 20.2.1 The Bidder shall complete Appendix “B” to the Bid Form indicating the subcontractors (“Subcontractors”) it intends to employ to carry out each portion of the Work indicated therein. Subcontractors are subject to approval by the Owner. Once the Contract is signed by the Owner, no substitution of the Subcontractors approved by the Owner will be permitted unless approved by the Owner.

20.3 Appendix “C” to the Bid Form – Schedule

- 20.3.1 The Work shall be carried out in accordance with the schedule contained in Document D for the Bid Price.

20.3.2 The Bidders have the option of providing on Appendix “C” to the Bid Form which is an alternative schedule for the Work and the applicable amount by which the Bid Price will be adjusted. The Owner may, in its sole and absolute discretion, accept such alternative schedule for the Work and, in such event, the Bidder’s obligation to carry out the Work in accordance with the schedule contained in Document D and the Bid Price shall be both amended accordingly.

20.4 Appendix “D” to the Bid Form – Residency

20.4.1 The Bidders shall indicate in Appendix “D” to the Bid Form their applicable residency.

20.5 Appendix “E” to the Bid Form – Proposed Alternatives to the Work (if any)

20.5.1 The Bidder’s Proposed Alternatives to the Work, if any, shall be attached as Appendix “E” to the Bid Form.

20.6 Appendix “F” to the Bid Form – List of Experience

20.6.1 The Bidders shall indicate in Appendix “F” to the Bid Form their list of experience on projects of a similar nature completed within the last five years.

20.7 Appendix “G” to the Bid Form – Schedule of Unit Prices

20.7.1 The Bidders shall complete Appendix “G” - Schedule of Unit Prices as per the requirements listed in the Appendix “G” - “General Notes”.

ATTACHMENT “A” FORM OF AGREEMENT TO BOND (EXAMPLE)

AGREEMENT TO BOND

TO: _____ (“OWNER”)

NAME OF BIDDER: _____ “[Insert Name of Bidder]”

RE: _____ “[Insert Name of Project]”

We, the undersigned, hereby agree to become bound as surety for the above-named Bidder, in a Performance Bond and a Labour and Material Payment Bond, each in the amount of **100%** of the Bid Price and in a form conforming to the Bid Documents for the full and due performance of the Work shown and described therein, if the Bid attached hereto is accepted by the Owner.

IN WITNESS WHEREOF we have hereunto set out our corporate seal testified by the hands of our proper officers in that behalf.

Dated this _____ day of _____ 20____.

| | |
|------------------|--|
| Name of Surety | |
| Surety's Address | |

Witness: _____ Signed by: _____

Signature: _____ Signature: _____

Address: _____ Title: _____

Signed by: _____

Signature: _____

Title: _____



Document B
Bid

BID FORM

TO: **Township of Norwich**
285767 Airport Road
Norwich, ON N0J 1P0

Attention: Dirk Kramer, Drainage Superintendent

DATE: _____, 2025

SUBMITTED BY: _____
" [Insert Bidder's Legal Name] "

ADDRESS: _____
" [Insert Bidder's Business Address] "

PROJECT NAME: Haigh Municipal Drain Improvement

CONTRACT NUMBER: 300057028.0000

- 1.1 The undersigned (the "Bidder"), hereby declares that it has received and carefully examined all of the Bid Documents as set out in Section 3.1 of the Instructions to Bidders and has visited the Place of the Work and familiarized itself with all of the conditions affecting the Work as described in the Bid Documents with respect to Work and with all of the provisions of the Bid Documents including, without limitation, the form of the Contract. Without limiting the foregoing, the undersigned also acknowledges having received and carefully examined all of the following Addenda and having included all aspects thereof in their bid:

| Addendum No. | Date | Included in Bid (✓) |
|--------------|------|---------------------|
| | | |
| | | |
| | | |
| | | |
| | | |
| | | |
| | | |

(Notes: If no Addenda are issued then this table shall be left blank. It is not necessary to submit copies of each Addendum with the Bid.)

- 1.2 In accordance with, and subject to, the Contract (including, without limitation, GC 8.01.02), the Bidder hereby offers to perform and complete the Work (including, without limitation, furnishing all products, materials, construction machinery, tools, equipment, plant, labour, and supervision necessary for the proper completion of the Work and the contract security, permits, insurance and transportation) to attain Substantial Performance of the Work in accordance with the schedule contained in Document D of the Bid Documents, for the price bid ("Bid Price") of: the total of the amounts calculated by multiplying the actual measured and approved quantities by the applicable unit prices combined with the completed lump sum price components of the Work, all as set out in Appendix "G", as adjusted pursuant to the Contract.

The Bid Price includes, without limitation, all applicable federal and provincial sales taxes, excise taxes and other taxes, including the HST, customs and duties.

In addition, the Bidder shall confirm that the Bid Price/Estimated Contract Price is set out in Appendix "G".

- 1.3 The Bidder agrees that time is of the essence and, if this Bid is accepted by the Owner, the Bidder agrees that it shall immediately commence the Work, including all mobilization work and submit initial shop drawings.
- 1.4 The Bidder declares that it has visited and carefully examined the Place of the Work and the surrounding area in a reasonable and prudent manner and satisfied itself as to the scope and character of the Work and all conditions and information affecting the Work and how the Work is to be completed, including, without limitation, the nature and location of the Work, working areas, storage areas, local features including private property and utilities, access to and at the Place of the Work, weather conditions and any other factors which may influence the performance of the Work and/or the pricing of the Work.
- 1.5 The Bidder is responsible for each Subcontractor's solvency, the contents of each Subcontractor's bid and for each Subcontractor's obligations as contemplated pursuant to the Bid Documents.
- 1.6 The Bidder represents and warrants that each of the Subcontractors set out in Appendix "B" is reliable and competent to carry out the Work in accordance with the Bid Documents, that the Bidder has consulted with each of the listed Subcontractors and has ascertained to the Bidder's complete satisfaction that they are fully acquainted with the extent and nature of the work involved, and of the requirements of the construction schedule, and that all such Subcontractors shall execute the Work to conform to the requirements of the Bid Documents and the construction schedule. If awarded the Contract, the Bidder shall only employ the Subcontractors set out in Appendix "B", as approved by the Owner, for the Work.
- 1.7 This Bid shall remain firm and irrevocable and open for acceptance by the Owner at any time for ninety (90) days after the Bid Closing Time, whether or

not, any other Bid has been previously accepted by the Owner. This Bid shall expire upon written notice of rejection to the Bidder by the Owner or ninety (90) days after the Bid Closing Time, whichever first occurs.

- 1.8 We enclose herewith the Security, on the understanding that, without prejudice to any other right or remedy which may be available to the Owner, the Security may be used to compensate the Owner for any damages, costs or expenses that the Owner may incur as a result of the Bidder's failure to comply with, or breach of, the Bid or Bid process described in these Instructions to Bidders (including, without limitation, in the event that the Bidder attempts to withdraw its Bid prior to the expiry of ninety (90) days from the Bid Closing Time, or in the event that the Owner accepts the Bidder's Bid and the Bidder refuses or fails to sign the Contract or otherwise honour the Bid).
- 1.9 It is understood that all prices quoted in this Bid are in Canadian funds.
- 1.10 If notified in writing by the Owner (or Owner's agent) of acceptance of this Bid within ninety (90) days of the Bid Closing Time, we will execute the Contract within five (5) days of being presented by the Contract Administrator with the Contract for execution, while recognizing that upon the Acceptance the Contract will be formed and binding on the Owner and the Bidder, and furnish the Contract Security as specified in Section 10 of the Instructions to Bidders.

Without prejudice to any other right or remedy which may be available to the Owner, in the event that we do not execute the Contract within five (5) days of being presented by the Contract Administrator with the Contract for execution, the Owner may, in its discretion, accept any other Bid, request new bids or carry out the Work in any other way the Owner deems best, and the Security may be used to compensate the Owner for any damages, costs or expenses that the Owner may incur as a result of taking such action.

- 1.11 The following documentation comprising the Bid is enclosed:

- .1 This Bid Form;
- .2 The Security (as defined in Section 10 of the Instructions to Bidders);
- .3 Appendix "A" – List of Bid Documents;
- .4 Appendix "B" – Subcontractors;
- .5 Appendix "C" – Schedule;
- .6 Appendix "D" – Residency;
- .7 Appendix "E" – Proposed Alternatives to the Work;
- .8 Appendix "F" – List of Experience; and
- .9 Appendix "G" – Schedule of Unit Prices.

- 1.12 If this Bid is made by more than one person then each of the persons making this Bid agrees to be bound by it jointly and severally.
- 1.13 All capitalized terms used but not defined herein will have the definitions given to them in Document A – Instructions to Bidders.
- 1.14 The Bidder represents, warrants and covenants to the Owner that:
- .1 All instructions and directions in the Bid Documents for the preparation and submission of this Bid have been complied with;
 - .2 This Bid is made without any connection, knowledge, comparison of figures or arrangement with any other person, corporation or other entity making another Bid for the Work and is, in all respects, fair and without collusion or fraud;
 - .3 No member of the municipal council of the Owner (as applicable) and no officer or employee of the Owner is, or will become interested directly or indirectly as a contracting party, partner, shareholder, security or otherwise, in the performance of the Contract, or in the supply of materials or services, work or business to which it relates, or in any portion of the profits thereof, or in any of the monies to be derived therefrom; and
 - .4 The Bidder agrees to be bound by the Bid Documents.
- 1.15 The Bidder declares and warrants that, in addition to all other Health & Safety requirements, it has considered and incorporated appropriate COVID-19 protocols and procedures into its Workplan, in keeping with current provincial best practices/guidelines for construction sites, and that submitted pricing properly reflects these measures. Upon Award, the successful bidder will be required to submit their COVID-19 plan to the Owner for record purposes.

SIGNED BY THE BIDDER AS OF THE DATE FIRST WRITTEN ABOVE.

FULL LEGAL COMPANY NAME

ADDRESS OF COMPANY

NAME/TITLE OF OFFICER

SIGNATURE OF OFFICER
AND COMPANY SEAL

TELEPHONE NUMBER

FAX NUMBER

EMAIL ADDRESS

APPENDIX “A”

LIST OF BID DOCUMENTS

The Bid Documents consist of:

- (a) Document A – Instructions to Bidders;
- (b) Document B – Bid (see Section 1.11 of Bid Form);
- (c) Document D – General Requirements;
- (d) the drawings and specifications listed in Document E (collectively, the “Drawings and Specifications”);
- (e) the Contract; and
- (f) all Addenda that were issued in writing by the Owner, or Contract Administrator, prior to the Bid Closing Time.

APPENDIX “B”

SUBCONTRACTORS

The following is a listing of Subcontractors who we propose to use.

[illegible]

APPENDIX “C”

SCHEDULE

- .1 In accordance with, and subject to, the Contract, the Bidder shall carry out the Work in accordance with the Completion Date contained in Document D, Subsection D.1.1 for the unit prices and lump sum prices set out in Appendix “G”.
- .2 The Bidder submits the following alternative schedule for the Work and the applicable amount by which the unit prices and lump sum prices set out in Appendix “G” will be adjusted, for the Owner’s consideration. If the Owner, in its sole and absolute discretion, accepts such alternative schedule for the Work, the Bidder’s obligation to carry out the Work in accordance with the schedule contained in Document D and the unit prices and lump sum prices set out in Appendix “G” shall be both amended accordingly.
 - (a) Alternative Schedule for the Work
 - (b) Adjustment in the unit prices and lump sum prices set out in Appendix “G” (inclusive of all amounts including, without limitation, HST)

(Note: If the Bidder is not submitting an alternative schedule for the Work, then paragraphs (a) and (b) may be left blank.)

APPENDIX “D”

RESIDENCY

The Bidder ___**is** or ___**is not** a resident of Canada within the meaning of the Income Tax Act (Canada). Please check applicable description.

APPENDIX “E”

PROPOSED ALTERNATIVES TO THE WORK (IF ANY)

[See Section 7.3 of the Instructions to Bidders.]

LIST OF EXPERIENCE*

[illegible]

APPENDIX “G”
SCHEDULE OF UNIT PRICES

General Notes

- i) Where alternative materials are listed, Bidders shall indicate a Unit Price for each alternative, but shall extend only the lowest Unit Price.
- ii)
- | | | |
|----------------|---------|------------------------------------|
| m ³ | denotes | Cubic Metre (compacted or in situ) |
| m | denotes | Linear Metre |
| LS | denotes | Lump Sum |
| ea | denotes | each |
| m ² | denotes | Square Metre |
| t | denotes | Tonne (2,204.6 lbs.) |
| ha | denotes | Hectare |
| hrs | denotes | Hours |
| CB | denotes | catchbasin |
| CDT | denotes | concrete drain tile |
| CSP | denotes | corrugated steel pipe |
| c/w | denotes | complete with |
| DICB | denotes | ditch Inlet catchbasin |
| JB | denotes | junction box |
| OB | denotes | observation box |
| ROW | denotes | right of way |
| S & I | denotes | supply and install |
| Sta. | denotes | Station (chainage) |
- iii) [All sections of the Schedule of Unit Prices must be completed **in full** and submitted as part of the Bid].

SCHEDULE OF UNIT PRICES

R. J. Burnside & Associates Limited

Project No. 300057028

Page No. 13

Contractor: ***

Address: ***

Contract Title: Haight Municipal Drain Improvement

SCHEDULE A - Private Property Main Drain

| ITEM NO. | DESCRIPTION | CONTRACT QUANTITY | UNIT | UNIT PRICE | CONTRACT TOTAL |
|----------|---|-------------------|------|------------------|----------------|
| A1 | Mobilization & demobilization (SP 0) | 1.00 | LS | | |
| A2 | Construct temporary rock check dam (OPSD 219.211). (SP 1) (Sta. -0+293) | 1.00 | LS | | |
| A3 | Construct temporary sediment trap (OPSD 219.220). (SP 2) (Sta. -0+293) | 1.00 | LS | | |
| A4 | Channel deepening and spoil leveling (approx. 283 m averaging 0.40 m deepening). (SP 3) (Sta. -0+293 to Sta. -0+010) | 1.00 | LS | | |
| A5 | Construction of one stilling basin, including rip-rap erosion protection as per the accompanying details. (SP 4) (Sta. -0+010 to Sta. 0+000) | 1.00 | LS | | |
| A6 | Supply & install 6 m of 750 mm dia. solid dual-wall HDPE outlet pipe (320 kPa) c/w rodent grate. (SP 5) (Sta. 0+000 to Sta. 0+006) | 1.00 | LS | | |
| A7 | Supply & install 6 m of 600 mm dia. solid dual-wall HDPE outlet pipe (320 kPa) c/w rodent grate. (SP 5) (Sta. 0+000 to Sta. 0+006) | 1.00 | LS | | |
| A 8 | a) Supply approx. 140 m of 750 mm dia. 2000D CDT and required geo-textile. | 1.00 | LS | | |
| | b) Install approx. 140 m of 750 mm dia. CDT via wheel trencher. (SP 6) (Sta. 0+006 to Sta. 0+146) | 1.00 | LS | | |
| | | | | SUBTOTAL: | |

SCHEDULE OF UNIT PRICES

R. J. Burnside & Associates Limited

Project No. 300057028

Page No. 14

Contractor: ***

Address: ***

Contract Title: Haight Municipal Drain Improvement

SCHEDULE A - Private Prop. Main Cont'd

| ITEM NO. | DESCRIPTION | CONTRACT QUANTITY | UNIT | UNIT PRICE | CONTRACT TOTAL |
|----------|---|-------------------|----------|------------------|----------------|
| A9 | Supply and install one 900 mm x 1,200 mm inline concrete CB. (SP 7) (Sta. 0+146) | 1.00 | LS | | |
| A10 | Supply and install approx. 6 m of 525 mm dia. solid dual-wall HDPE pipe (320 kPa) c/w connection to proposed CB to service the existing municipal tile. (SP 8) (Sta. 0+146) | 1.00 | LS | | |
| A11 | a) Supply approx. 228 m of 750 mm dia. 2000D CDT and required geo-textile. b) Install approx. 228 m of 750 mm dia. CDT via wheel trencher. (SP 6) (Sta. 0+146 to Sta. 0+374) | 1.00 1.00 | LS LS | | |
| A12 | Supply & install 6 m of 750 mm dia. solid dual-wall HDPE pipe (320 kPa) c/w 22.5 degree elbow at its midpoint. (SP 5) (Sta. 0+399 to Sta. 0+405) | 1.00 | LS | | |
| A13 | a) Supply approx. 397 m of 750 mm dia. 2000D CDT and required geo-textile. b) Install approx. 397 m of 750 mm dia. CDT via wheel trencher. (SP 6) (Sta. 0+405 to Sta. 0+802) | 1.00 1.00 | LS LS | | |
| A14 | a) Supply and install one 900 mm x 1,200 mm inline concrete BJB. b) Remove and dispose of ex. BJB off-site (SP 7) (Sta. 0+802) | 1.00 1.00 | LS LS | | |
| A15 | Supply and install approx. 6 m of 200 mm dia. solid dual-wall HDPE pipe (320 kPa) c/w connection to proposed BJB to service the Rettie Municipal Drain (1939). (SP 8) (Sta. 0+802) | 1.00 | LS | | |
| | | | | SUBTOTAL: | |

SCHEDULE OF UNIT PRICES

R. J. Burnside & Associates Limited

Project No. 300057028

Page No. 15

Contractor: ***

Address: ***

Contract Title: Haight Municipal Drain Improvement

SCHEDULE A - Private Prop. Main Cont'd 1

| ITEM NO. | DESCRIPTION | CONTRACT QUANTITY | UNIT | UNIT PRICE | CONTRACT TOTAL |
|----------|--|-------------------|------|------------------|----------------|
| A16 | Supply and install approx. 6 m of 300 mm dia. solid dual-wall HDPE pipe (320 kPa) c/w connection to proposed CB to service the existing municipal tile. (SP 8) (Sta. 0+802) | 1.00 | LS | | |
| A17 | a) Supply approx. 49 m of 675 mm dia. 2000D CDT and required geo-textile. b) Install approx. 49 m of 675 mm dia. CDT via wheel trencher. (SP 6) (Sta. 0+802 to Sta. 0+851) | 1.00 | LS | | |
| | | 1.00 | LS | | |
| A18 | Supply and install one 900 mm x 1,200 mm inline concrete CB. (SP 7) (Sta. 0+851) | 1.00 | LS | | |
| A19 | Supply and install approx. 6 m of 300 mm dia. solid dual-wall HDPE pipe (320 kPa) c/w connection to proposed CB to service the existing municipal tile. (SP 8) (Sta. 0+851) | 1.00 | LS | | |
| A20 | a) Supply approx. 335 m of 350 mm dia. 2000D CDT and required geo-textile. b) Install approx. 335 m of 350 mm dia. CDT via wheel trencher. (SP 6) (Sta. 0+851 to Sta. 1+186) | 1.00 | LS | | |
| | | 1.00 | LS | | |
| A21 | a) Supply and install one 600 mm x 600 mm inline concrete CB. b) Remove and dispose of ex. CB off-site. (SP 7) (Sta. 1+186) | 1.00 | LS | | |
| | | 1.00 | LS | | |
| | | | | SUBTOTAL: | |

SCHEDULE OF UNIT PRICES

R. J. Burnside & Associates Limited

Project No. 300057028

Page No. 16

Contractor: ***

Address: ***

Contract Title: Haight Municipal Drain Improvement

SCHEDULE A - Private Prop. Main Cont'd 2

| ITEM NO. | DESCRIPTION | CONTRACT QUANTITY | UNIT | UNIT PRICE | CONTRACT TOTAL |
|----------|--|-------------------|------|------------------|----------------|
| A22 | Supply and install approx. 6 m of 300 mm dia. solid dual-wall HDPE pipe (320 kPa) c/w connection to proposed CB to service the existing municipal tile. (SP 8) (Sta. 1+186) | 1.00 | LS | | |
| A23 | a) Supply approx. 279 m of 300 mm dia. 2000D CDT and required geo-textile. b) Install approx. 279 m of 300 mm dia. CDT via wheel trencher. (SP 6) (Sta. 1+186 to Sta. 1+465) | 1.00 | LS | | |
| | | 1.00 | LS | | |
| A24 | a) Supply and install one 600 mm x 600 mm inline concrete CB. b) Remove and dispose of ex. CB off-site. (SP 7) (Sta. 1+465) | 1.00 | LS | | |
| | | 1.00 | LS | | |
| A25 | Supply and install approx. 6 m of 150 mm dia. solid dual-wall HDPE pipe (320 kPa) c/w connection to proposed CB to service the existing municipal tile. (SP 8) (Sta. 1+465) | 1.00 | LS | | |
| | | | | SUBTOTAL: | |

SCHEDULE OF UNIT PRICES

R. J. Burnside & Associates Limited

Project No. 300057028

Page No. 17

Contractor: ***

Address: ***

Contract Title: Haight Municipal Drain Improvement

SCHEDULE A - Public Property Main Drain

| ITEM NO. | DESCRIPTION | CONTRACT QUANTITY | UNIT | UNIT PRICE | CONTRACT TOTAL |
|----------|--|-------------------|------|------------------|----------------|
| A26 | a) Supply and install one 900 mm x 1,200 mm inline concrete DICB. | 1.00 | LS | | |
| | b) Remove and dispose of ex. CB off-site. (SP 7) (Sta. 0+374) | 1.00 | LS | | |
| A27 | Highway 59 Road Crossing (SP 9) | | | | |
| | a) Supply and install approx. 25 m of 750 mm dia. smooth wall welded steel pipe via the jack & bore method. | 1.00 | LS | | |
| | b) Grout existing 600 mm dia. Haight Municipal Drain Crossing on Highway 59 ROW. (Sta. 0+374 to Sta. 0+399) | 1.00 | LS | | |
| A28 | a) Supply and install one 900 mm x 1,200 mm inline concrete DICB. | 1.00 | LS | | |
| | b) Remove and dispose of ex. CB off-site. (SP 7) (Sta. 0+399) | 1.00 | LS | | |
| A29 | Supply and install approx. 6 m of 450 mm dia solid dual-wall HDPE pipe (320 kPa) c/w connection to proposed CB to service the existing municipal tile. (SP 8) (Sta. 0+399) | 1.00 | LS | | |
| | | | | SUBTOTAL: | |

SCHEDULE OF UNIT PRICES

R. J. Burnside & Associates Limited

Project No. 300057028

Page No. 18

Contractor: ***

Address: ***

Contract Title: Haight Municipal Drain Improvement

SCHEDULE B - Private Property - Branch A

| ITEM NO. | DESCRIPTION | CONTRACT QUANTITY | UNIT | UNIT PRICE | CONTRACT TOTAL |
|----------|--|-------------------|------|------------------|----------------|
| B1 | a) Supply approx. 226 m of 400 mm dia. 2000D CDT and required geo-textile. b) Install approx. 226 m of 400 mm dia. CDT via wheel trencher. (SP 6) (Sta. A0+000 to Sta. A0+226) | 1.00 | LS | | |
| B2 | Locate and destroy existing municipal tile on Storey property (Approx. 226 m). (SP 6) (Sta. A0+000 to Sta. A0+226) | 1.00 | LS | | |
| B3 | Supply and install one 600 mm x 600 mm inline concrete DICB. (SP 7) (Sta. A0+226) | 1.00 | LS | | |
| B4 | Supply & install 6 m of 300 mm dia. solid dual-wall HDPE pipe (320 kPa) c/w 45 degree elbow at its midpoint. (SP 5) (Sta. A0+226 to Sta. A0+232) | 1.00 | LS | | |
| B5 | a) Supply approx. 316 m of 300 mm dia. 2000D CDT and required geo-textile. b) Install approx. 316 m of 300 mm dia. CDT via wheel trencher. (SP 6) (Sta. A0+232 to Sta. A0+548) | 1.00 | LS | | |
| B6 | Locate and destroy existing municipal tile on 2223695 Ontario Inc. property (Approx. 316 m). (SP 6) (Sta. A0+232 to Sta. A0+548) | 1.00 | LS | | |
| B7 | Supply and install one 600 mm x 600 mm inline concrete CB. (SP 7) (Sta. A0+548) | 1.00 | LS | | |
| B8 | Brushing a working ROW with a 20 m width alongside the proposed drain route for approx. 11 m. (SP 10) (Sta. A0+274 to Sta. A0+285) | 1.00 | LS | | |
| | | | | SUBTOTAL: | |

SCHEDULE OF UNIT PRICES

R. J. Burnside & Associates Limited

Project No. 300057028

Page No. 19

Contractor: ***

Address: ***

Contract Title: Haight Municipal Drain Improvement

SCHEDULE C - Contingencies

| ITEM NO. | DESCRIPTION | CONTRACT QUANTITY | UNIT | UNIT PRICE | CONTRACT TOTAL |
|----------|---|-------------------|----------------|------------------|----------------|
| C1 | Tile connections and existing tile reconnections to the drain (as approved by the Engineer). (SP 11) a) 100 mm dia. pipe – Connection b) 150 mm dia. pipe – Connection | 5.00 5.00 | ea. ea. | | |
| C2 | Install drain on 150 mm depth of 19 mm dia. crushed clear stone bedding (c/w supply of materials) in areas of soil instability, as directed by the Contract Administrator. Backfill to springline. This cost represents the additional unit price for installation by excavator and will be paid in addition to the cost of installation specified by wheel trencher. (SP 12) | 185.00 | m | | |
| C3 | Supply and install a 450 mm thickness of OPSS R50 quarry stone rip-rap with geotextile underlay. (SP 13) | 20.00 | m ² | | |
| C4 | Locate and destroy existing municipal tile. (SP14) | 300.00 | m | | |
| | | | | SUBTOTAL: | |

SCHEDULE OF UNIT PRICES/SUMMARY

SCHEDULE

| | |
|---|----|
| A – Private Property Main Drain | \$ |
| A – Private Prop. Main Cont'd | \$ |
| A – Private Prop. Main Cont'd 1 | \$ |
| A – Private Prop. Main Cont'd 2 | \$ |
| A – Public Property Main Drain | \$ |
| B – Private Property – Branch A | \$ |
| C – Contingencies | \$ |
| SUB-TOTAL Bid Price/Estimated Contract Price | \$ |
| HST (@ 13%) | \$ |
| TOTAL Bid Price/Estimated Contract Price | \$ |

All amounts in this Appendix “G” are in Canadian dollars.

The estimated quantities set out in this Appendix “G” are only approximate and the actual measured and approved quantities may vary from such estimated quantities.

The lump sum amounts and unit prices set out in this Appendix “G” shall apply to the Contract and are inclusive of all costs and expenses required to perform and complete the Work including, without limitation, all applicable federal and provincial sales taxes, excise taxes and other taxes, insurance, permits, customs, duties and transportation, except for the HST (referred to separately in this Appendix “G”).

PROPOSED START DATE: _____

PROPOSED COMPLETION DATE: _____



BURNSIDE

Document C

General Conditions of Contract

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C.1 OPSS.MUNI 100 GENERAL CONDITIONS OF CONTRACT

Please note that the OPSS MUNI General Conditions of Contract dated November 2024 (OPSS.MUNI 100 November 2024) are deemed to form part of this document.

A copy can be obtained by contacting the Contract Administrator or by visiting the Ontario Provincial Standards website: [MTO Technical Publications](#).

C.2 SUPPLEMENTAL GENERAL CONDITIONS

C.2.1 General Conditions

The words General Conditions in this Contract shall mean the Ontario Provincial Standards for Roads and Public Works - General Conditions of Contract, dated November 2024 (OPSS.MUNI 100). All requirements of these General Conditions shall apply except as amended herein.

If there is any conflict between the General Conditions of Contract and the Supplemental General Conditions, the Supplemental General Conditions shall take precedence.

C.2.2 Designation of Parties

Where the words "Department", "Minister", "Ministry", "Legislature", "Town", "Corporation" or any other words of similar intent are used in the General Conditions, they shall be understood as meaning "Owner".

Where the words "Engineer", "Authority" or "Contract Administrator" are used in this Contract they shall be understood as meaning R.J. Burnside & Associates Limited, or any other delegate designated by the Owner.

C.2.3 Amendments to General Conditions

C.2.3.1 Modify "Major Item" definition in GC 1.04 as follows:

Subsection a), replace "\$100,000" with "\$500,000".

Subsection b), replace "5%" with "15%".

C.2.3.2 Add "Substantial Performance" definition to GC 1.04 as follows:

1. The Work/Contract is substantially performed,

a) when the improvement to be made under the Contract or a substantial part thereof is ready for use or is being used for the purposes intended; and

b) when the improvement to be made under the Contract is capable of completion or, where there is a known defect, correction, at a cost of not more than,

i. 3 percent of the first \$1,000,000 of the Contract price;

ii. 2 percent of the next \$1,000,000 of the Contract price;

iii. 1 percent of the balance of the Contract price.

2. For the purposes of this Contract, where the improvement or a substantial part thereof is ready for use or is being used for the purposes intended and the Owner and the Contractor agree not to complete the improvement expeditiously, the price of the services or materials remaining to be supplied and required to complete the improvement shall be deducted from the Contract price in determining Substantial Performance.

C.2.3.3 Add "Completion" definition to GC 1.04 as follows:

The Work/Contract shall be deemed to be completed and services or Materials shall be deemed to be last supplied to the improvement when the price of completion, correction of a known defect or last supply is not more than the lesser of,

- a) 1 percent of the Contract price; and
- b) \$5,000.

C.2.3.4 GC 2.01.01

a) shall be deleted and replaced with:

- a) The Contractor's attention is drawn to the presence of underground utilities, which may affect the work. The locations indicated on the Contract Drawings represent, to the best of the Owner's knowledge, the approximate location of such utilities. The Contractor shall be responsible for obtaining all utility stake outs as per GC 7.01.09 as well as any inspection or test pits required and the inspection of any manholes, catch basins, sewers or vaults necessary to locate any utility.

C.2.3.5 Amend GC 2.01.02 (a) as follows:

Add "Geotechnical or" immediately prior to "Subsurface Report".

C.2.3.6 Replace GC 2.02.01 with:

.01 In the event of any inconsistency or conflict in the contents of the following documents, such documents shall take precedence and govern in the following descending order from highest to lowest:

- a) Articles of Agreement
- b) Addenda
- c) Contract Drawings (except included standard drawings such as OPSDs)
- d) Bid
- e) General Requirements
- f) Special Provisions
- g) Standard Specifications

- h) Supplemental General Conditions
- i) OPSS.MUNI 100 General Conditions of Contract (Nov. 2024)
- j) Standard Drawings (e.g., OPSDs)
- k) Working Drawings.

Later dates shall govern within each of the above categories of documents.

C.2.3.7 Amend GC 3.01.11 as follows:

The existing paragraph becomes .11 a) and the following is added:

- .11 b) The Contractor shall, at any time so required by the Contract Administrator, during construction or during the warranty period, make such openings to such extent through any part of the Work as the Contract Administrator may direct for inspection or testing purposes. Upon the completion of the inspections the Contractor shall forthwith make the work good again to the satisfaction of the Contract Administrator. Should the work so opened be found, in the opinion of the Contract Administrator, to be not in compliance with the Contract in any respect, the whole of the expense, including the cost of inspection, shall be borne by the Contractor; but if the work so opened up is found to be in compliance with the Contract, the said expense shall be borne by the Owner (unless the Contract Administrator was not properly notified prior to concealment of the work, in which case the cost will be borne solely by the Contractor).
- .11 c) Should the Contractor refuse to make such openings and reinstatements as ordered by the Contract Administrator, then the Contract Administrator may proceed with the work in any manner deemed appropriate in the Contract Administrator's opinion. The cost of such work shall be paid by the Contractor or deducted by the Owner from any monies due to the Contractor.

C.2.3.8 Replace GC 3.02.06 with:

- .06 Work related to the Working Drawings shall not proceed until the Working Drawings have been initialled or signed, and dated, by the Contract Administrator and marked as "Reviewed" or "Reviewed as Noted".

C.2.3.9 Add the following to GC 3.07 Delays:

- .05 Extension(s) to Contract Time shall only be considered if, in the sole opinion of the Contract Administrator, the delay impacts the construction schedule's critical path.

C.2.3.10 Add the following to GC 3.0 Administration of the Contract:

GC 3.16 Site Meetings

- .01 The Contractor's site superintendent shall attend regular construction progress meetings and special site meetings as required by the Contract Administrator. Minutes of these meetings, prepared and issued by the Contract Administrator, shall be deemed to be accurate records of these meetings in the absence of timely notice to the contrary.

C.2.3.11 Add the following to GC 4.01 Working Area:

- .02 The Owner maintains a right of access to the Working Area for the purpose of performing the Owner's own work.

C.2.3.12 Amend GC 5.02.02 to include the following after "Contract":

Where the Contract Administrator requires documentary evidence substantiating that materials supplied by the Contractor comply with the terms of the Contract, such evidence must be provided by the Contractor in the form of a certified copy of a laboratory report from a recognized testing company or equivalent documentation acceptable to the Contract Administrator. The Contractor shall pay for the entire cost of such testing including sampling and shipping of samples, at no additional cost to the Owner.

C.2.3.13 Add the following to GC 7.01.01 Site Visit:

- .02 The Owner may arrange for test pit excavations and/or informational site visit(s) during the tender period in order to provide prospective Bidders with an opportunity to gather additional information regarding soil/groundwater conditions and/or particular issues and concerns impacting upon the staging/completion of the Work. All prospective Bidders are encouraged to avail themselves of this resource. The Contractor warrants that sufficient site information gathering has been undertaken and factored into the Bid, either through attendance at the site visit(s) arranged for by the Owner (if any), or through the Contractor's own investigations undertaken outside of the Owner-organized site visits.

C.2.3.14 Add the following to GC 7.01.07.01 Schedule:

The Contractor's schedule is subject to review and acceptance by the Owner and the Contract Administrator. The Contractor shall complete the Work in accordance with the accepted schedule and ultimately by the scheduled date for substantial performance as required by the Contract.

C.2.3.15 Add the following to GC 7.01.08.01:

Furthermore, the Contractor is required to carry out a review of the Contract Documents for errors and inconsistencies, applying a standard of care expected of an experienced and prudent contractor, and report the findings of said review to the Contract Administrator.

C.2.3.16 Add the following to GC 7.06.01:

In order to mitigate traffic hazards, materials and/or equipment shall not be stored within 3 m of the travelled portion of any roadway unless proper protection measures are in place. Excavations within 3 m of the travelled roadway shall be either backfilled or protected by proper measures after hours and on non-working days.

C.2.3.17 Add the following to GC 7.06 Maintaining Roads and Detours:

.12 Prior to moving off site before each weekend, Statutory Holiday, or any non-working day(s), the Contractor shall ensure that all required traffic and pedestrian control measures are in place. Roadways/sidewalks accessible to the public shall be graded to a smooth surface with dust control (water/calcium chloride) applied where/when necessary. The Contractor shall appoint a designated representative to regularly check the above measures during the Contractor's absence from the site and to remedy any issues which may arise in a timely manner. No additional payment will be made for this work.

C.2.3.18 Amend GC 7.10.04 as follows:

Change "7 Days" to "15 Days".

C.2.3.19 Replace GC 7.14.01 Limitation of Operations with the following:

.01 The Contractor shall not carry out operations under the Contract on Saturdays, Sundays, Statutory Holidays, or at night without permission, in writing, from the Contract Administrator, with the exception of urgent Work required to maintain the Working Area in a safe and satisfactory condition. In all cases and at all times, the Contractor is required to monitor and maintain the Working

Area in a safe and satisfactory manner and to respond to issues in a timely manner, whether or not direction from the Contract Administrator is given in this regard.

C.2.3.20 Add the following to GC 7.16 Warranty:

- .04 If the Contract Administrator notifies the Contractor in writing of defects or deficiencies prior to expiration of the Warranty Period, the Contractor shall remedy such defects or deficiencies, notwithstanding that the rectification work may commence after or extend beyond the end of the Warranty Period.

C.2.3.21 Add the following to GC 7.0 Contractor's Responsibilities and Control of the Work:

GC 7.19 Standard of Care

- .01 In performing this Contract the Contractor shall exercise a standard of care, skill, judgement and diligence that would normally be exercised by an experienced, skilled and prudent contractor supplying similar services for similar projects. The Contractor acknowledges and agrees that, throughout this Contract, the Contractor's obligations, duties and responsibilities shall be interpreted in accordance with this standard. The Contractor shall exercise the same standard of care, skill, judgement and diligence in respect of any products, subcontractors, suppliers, personnel or procedures which it may recommend to the Owner or employ on the Project.
- .02 The Contractor represents, covenants and warrants to the Owner that:
 - a) The personnel it assigns to the Project are appropriately experienced;
 - b) It has sufficient staff of qualified and competent personnel to replace its designated supervisor and project manager, subject to the Owner's approval, in the event of death, incapacity, removal or resignation; and
 - c) There are no pending, threatened or anticipated claims that would have a material effect on the financial ability of the Contractor to perform the Work under the Contract.
- .03 The Contractor shall perform the Work so as to avoid disturbing the occupants of the place of the Work and any adjacent structures or the public in general, and shall respect and comply with local regulations and requirements regarding permitted work hours, noise levels and work conditions. The Contractor, without in any way limiting its responsibilities under this Contract, shall

take all reasonable steps to avoid interference with fire exits, site access and egress, continuity of electric power and all other utilities, to suppress dust and noise, to avoid conditions likely to propagate mould or fungus of any kind and shall take all other steps reasonably necessary to promote and maintain the safety and comfort of the occupants of the place of the Work and any adjacent structures and the public in general, and/or to maintain access to and the operation of the same. Without the Owner's prior approval, the Contractor shall not permit any worker or subcontractors to use any existing facilities including, without limitation, elevators, washrooms, entrances and parking areas other than those designed by the Owner.

C.2.3.22 Replace GC 8.02.04.01.02, Proper Invoice inclusions/requirements, with:

0.2 A Proper Invoice shall include:

- a) The Contractor's name and address.
- b) The date of the Proper Invoice and the period during which the services or materials were supplied.
- c) Information identifying the authority, whether in the Contract or otherwise, under which the services or materials were supplied.
- d) A description, including quantity where appropriate, of the services or materials that were supplied.
- e) The amount payable for the services or materials that were supplied and the payment terms.
- f) The name, title, telephone number and mailing address of the person to whom payment is to be sent.
- g) A current Clearance Certificate from the Workplace Safety and Insurance Board (WSIB).
- h) A Statutory Declaration and proof that any disputes with subcontractors/suppliers have been resolved or are in adjudication.
- i) A "Unit Payment Schedule", the format for which may be provided by the Contract Administrator, which will include:
 - The Item List, Item No., and Contract Quantity for each item precisely as it appears in the "Schedule of Unit Prices";
 - The Unit of Payment and the Unit Price;
 - The Contract Total for each item as it appears in the "Schedule of Unit Prices";
 - A summary of "Payable Quantities" in the following format:
 - i. Previous Quantity Paid;

- ii. Payable Quantity Requested this Invoice;
- iii. Total Quantity Payable to Date.
- Total Payment to Date for each Item;
- Unit Payment Schedule Summary Page showing:
 - i. Total Work to Date;
 - ii. Total Holdbacks to Date;
 - iii. Total Payable to Date;
 - iv. Previous Payments;
 - v. Subtotal of Requested Payment (per Invoice);
 - vi. HST for Requested Payment (per Invoice);
 - vii. Total Requested Payment including HST (per Invoice).
- Proof of payable material quantities (e.g., weigh scale/truck tickets).
- All payable Change Orders/Extra Work/Additional Work ratified by the Owner including supporting documentation such as detailed breakdown of labour, equipment, materials and entitlements;
- Any advanced payment for material on-site, including invoices/proof of payment;
- The amount of liens, Owner's set-off and deductions for deficient work.

Proper Invoice submissions not meeting the above minimum requirements shall be deemed improper and shall therefore not trigger the requirement for payment within 28 days until such time as all Proper Invoice submission requirements have been met; only then will the invoice submission package be deemed a Proper Invoice requiring payment to be made within 28 days, unless a notice of non-payment is subsequently issued in accordance with the Construction Act.

C.2.3.23 Add the following to GC 8.02.04.05.01 b):

...and the value of any deficiencies, all as estimated solely by the Contract Administrator. The Owner is entitled to retain a special holdback, representing approximately 200% of the estimated value of deficiencies and outstanding or incomplete work (which is not outstanding or incomplete for reasons beyond control of the Contractor). This 200% holdback can be tracked either as a single aggregate special holdback, or through unpaid or partially paid line items in the Schedule of Unit Prices, or some combination of the two as determined by the Contract Administrator. Furthermore, the full 200% aggregate special holdback will be released in two stages, as follows:

1. First release upon completion of at least half of the outstanding/

- incomplete Work and deficiencies.
- 2. Second and Final Release upon completion of all outstanding/incomplete Work and deficiencies.

The Contract Administrator may choose to exercise discretion with respect to any potential variance from the process and stages outlined above.

C.2.3.24 Add the following to GC 8.02.04.05.03:

- c) a release by the Contractor in a form satisfactory to the Contract Administrator releasing the Owner from all further claims relating to the Contract, qualified by stated exceptions such as outstanding work or matters arising out of subsection GC 3.13, Claims, Negotiations, Mediation;
- d) a statutory declaration in a form satisfactory to the Contract Administrator that all liabilities incurred by the Contractor and the Contractor's Subcontractors in carrying out the Contract have been discharged except for statutory holdbacks properly retained

C.2.3.25 Add the following to GC 8.02.04.05 Substantial Performance Payment and Substantial Performance Statutory Holdback Release Payment Certificates:

- .06 The Owner shall retain ten percent (10%), representing statutory holdback, of all payments due as shown on Substantial Performance Progress Payment in accordance with GC 8.02.04.01.02 e).

This Substantial Performance Statutory Holdback Release Payment Certificate referred to in GC 8.02.04.05.03 shall only relate to eighty percent (80%) of the statutory holdback (i.e., eight percent (8%) of the value of completed work) in respect of Work performed up to the date of Substantial Performance ("Initial Part of the Statutory Holdback") with the remaining twenty percent (20%) of such statutory holdback (i.e. two percent (2%) of the value of completed work) being referred to as the "Remaining Part of the Statutory Holdback". In addition to the other conditions referred to in GC 8.02.03.05.03, prior to payment of the Initial Part of the Statutory Holdback becoming due, the Contractor shall also provide satisfactory proof to the Owner to the effect that there are no liens, garnishees, attachments, charges or monies due in respect of, or relating to, the Work or Contract.

The Remaining Part of the Statutory Holdback shall be retained by the Owner and shall not be due and payable to the Contractor until the expiration of the warranty period and satisfactory rectification of all identified deficiencies and required completion of incomplete Work. At the Contractor's option, the Remaining Part of the Statutory Holdback may be released earlier if the Contractor provides an irrevocable Letter of Credit, in a form satisfactory to the Owner, equal to the amount of the Remaining Part of the Statutory Holdback, as a substitute for the Remaining Part of the Statutory Holdback, to be retained until the expiration of the warranty period and satisfactory rectification of all identified deficiencies and required completion of incomplete Work.

C.2.3.26 Add the following to GC 8.02.05.08 Payment for Work by Subcontractors:

- .03 Where the Contractor arranges for additional work to be performed by a Subcontractor based upon a pre-approved lump sum price, the Owner will pay the Contractor the Subcontractor's lump sum price plus a mark-up calculated on the following basis:
- a) ten percent (10%) of the first \$5,000; plus
 - b) five percent (5%) of the amount in excess of \$5,000.

C.2.3.27 Replace GC 8.02.09.01 Liquidated Damages with the following:

- .01 It is agreed by the parties to the Contract that if all the Work called for under the Contract is not substantially performed within the number of working days or calendar date set forth elsewhere in the Contract, as extended in accordance with GC 3.07 or elsewhere in the Contract, the Owner will sustain a loss or damage. The parties hereto agree that the Contractor will pay to the Owner the sum of [**One Thousand Five Hundred Dollars (\$1,500.00)** + HST] as liquidated damages for each and every calendar day's delay in finishing the work in excess of the number of working days or calendar date prescribed. Liquidated damages are not to be construed as a penalty but as a reasonable genuine pre-estimate of the damages expected to be incurred by the Owner as a result of late completion.

C.2.3.28 Add the following to GC 8.02 Payment:

GC 8.02.10 Deemed Acceptance

- .01 No payment by the Owner under the Contract or use or review of the Work by the Owner shall be deemed acceptance of work which is not in accordance with the Contract.

C.2.3.29 Add the following to GC 8.02 Payment:

GC 8.02.11 Liens

- .01 If any liens arising from the performance of the Work are registered against the Working Area or Project, the Contractor shall vacate or discharge such liens within thirty (30) days.



BURNSIDE

Document D

General Requirements

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D.1 GENERAL REQUIREMENTS

D.1.1 Contract Time

The Work under this Contract shall be substantially performed by December 31, 2026. This completion date is contingent upon Acceptance occurring within three (3) weeks of the Bid Closing Time. The completion date will be adjusted accordingly should Acceptance occur beyond the three (3) week period following the Bid Closing Time. Weather conditions will not constitute a basis for extension of the completion date unless, in the sole opinion of the Contract Administrator, conditions have varied substantially from what is reasonably considered normal for the season(s) (i.e., in the event of abnormal inclement weather).

D.1.2 Insurance Requirements

The successful Bidder is required to provide certificates/proof of insurance for all mandatory coverage required by the General Conditions of Contract.

In addition, in accordance with GC 6.03.01 General, the Contractor shall provide all risks property insurance as per GC 6.03.05.01.

The insurance policies shall name the following parties as additionally insured:

- Township of Norwich
- County of Oxford
- R.J. Burnside & Associates Limited

and shall insure the Contractor and the above named in the same manner and to the same extent as if a separate policy had been issued to each.

In addition to the above requirements, if blasting operations are used in the Contract, the Contractor shall take out and keep in force an insurance policy providing coverage for blasting operations to the same limits as set out in the General Conditions.

Contractors are hereby specifically notified that any loss or damage to the Work caused by the action of the elements including rain storms, wind storms, floods, etc., shall be sustained and borne by the Contractor at their own expense. Any material and additional work required to make good any loss or damage to work previously completed shall be borne at the cost of the Contractor and no claims for extra payment will be considered.

D.1.3 OPSS & OPSD

Relevant Ontario Provincial Standard Specifications (OPSS) and Ontario Provincial Standard Drawings (OPSD) in effect at the Official Closing Time, which are related to, or integral to the Work, apply to this Contract unless otherwise noted. OPSS "Municipal Oriented Specifications" will apply unless this project has been specifically designated as an MTO type "Provincial Oriented" project.

D.1.4 Schedule of Work

Upon being awarded the Contract, the Contractor shall forthwith supply to the Contract Administrator for approval a copy of a detailed planned Schedule of Work, showing clearly that the Work will be completed within the stipulated time.

D.1.5 Contract Administrator's Field Office

A separate field office for the Contract Administrator **will not** be required for this Contract.

D.1.6 Winter Work

No additional payment will be considered for the protection of the Work as required by the relevant OPSS for cold weather or winter conditions. The Contractor is encouraged to schedule their work to avoid placing concrete, asphalt or other temperature sensitive materials in cold weather and to avoid freezing of granular material during the operations employing these materials. Where the Contractor's schedule shows work involving temperature sensitive materials during a time frame where cold weather conditions may potentially or can be reasonably expected to occur, the price in the Schedule of Unit Prices shall be deemed to include the necessary cold weather provisions and no additional costs will be considered.

D.1.7 Provision for Traffic

All references in the Contract to the Manual of Uniform Traffic Control Devices (MUTCD), including all Parts and Divisions thereof, or MTO Traffic Control Manual for Roadway Work Operations, or Traffic Control Manual for Roadway Operations Field Editions are hereby deleted and replaced by the following books of the Ontario Traffic Manual (OTM):

- Book 5 – Regulatory Signs
- Book 6 – Warning Signs
- Book 7 – Temporary Conditions (& Temporary Conditions Field Edition)
- Book 11 – Pavement, Hazard and Delineation Markings
- Book 12 – Traffic Signals

Any reference in the Contract to OTM shall be deemed to be the Ontario Traffic Manual (Books 5, 6, 7, 11 and 12).

The Contractor shall comply with the applicable requirements of the above Ontario Traffic Control Manual book(s).

The Contractor shall be responsible for providing signing and traffic control in accordance with the Ontario Traffic Manual (OTM) and the OTM Book 7 Temporary Conditions - Field Edition.

Access shall be maintained at all times to any entrances within the limits of the Contract.

The Contractor is responsible for notifying any affected emergency agencies, transportation agencies, businesses, residents, etc., regarding access/traffic disruptions.

The Contractor shall provide a watchman or other suitable employee to inspect and maintain the signs, barricades and pedestrian ramps on a daily basis as well as weekends and other times when the Contractor is not working.

The Contractor shall provide an adequate number of traffic control persons to direct traffic at any time during construction as required by the Contract Administrator.

If there is no separate payment item for this work, then the costs are deemed to be included in the Bid Price.

D.1.8 Dust and Mud Control

The Contractor will be responsible for dust control as deemed necessary by the Owner during construction by watering and calcium application as directed by the Contract Administrator. Clean-up of mud tracking off site shall similarly be the Contractor's responsibility.

D.1.9 Disposal of Materials

The Contractor shall dispose of all waste and/or surplus materials in a disposal area selected by the Contractor in accordance with OPSS 180. The site shall be located off the Municipal right-of-way. The Contractor shall be responsible for all work involved in disposing the waste or excess material including trucking, access roads, levelling, and all haulage and/or dumping fees applicable.

The Contractor shall identify the disposal area and provide a release from the disposal area owner upon completion of the work.

Where any materials are designated to be salvaged, the Contractor can consult the appropriate special provisions for direction.

D.1.10 Environmental Requirements

It is intended that the Work proposed be executed in such a manner which, to the fullest possible extent, minimizes any adverse effect on the cultural and natural environment of the project area. The environmental conditions of the Contract stated herein must be complied with in all respects. It is a responsibility of the Contractor that all personnel be sufficiently instructed so that the Work is carried out in a manner consistent with minimizing environmental impact. The Contractor is expected to undertake the Work in such a manner that allows for the local area to be restored. It will also be required that the Contractor employ all reasonable precautions to minimize the impact of construction on the upstream and downstream environments. Restoration shall not be undertaken as a final project task but shall be initiated as soon as excavation or backfilling/compaction activities have been completed.

Permits and Authorization

The requirements set out in any permits issued for the project shall form part of this Contract and shall be strictly adhered to.

Any deviation from the prescribed requirements and/or methods contained in or implied by the permits as issued and this Contract will result in a work stoppage until such time as the Contractor produces suitably approved or revised permits acknowledging the proposed deviation. All costs associated with revised work permits will be solely the responsibility of the Contractor.

Refueling Areas

The Contractor shall undertake a detailed review of the proposed route of construction to plan access routes and fuelling areas. Refuelling and maintenance of equipment shall not be undertaken in or adjacent to a watercourse. Suitable fuelling and maintenance areas shall be established away from the waterway and all maintenance and fuelling conducted in these areas. The locations of such areas are subject to review by the Contract Administrator. Procedures for the interception and rapid cleanup and disposal of spillages that do occur shall be submitted to the Contract Administrator for review prior to starting work. All materials required for cleanup of fuel spillages shall be maintained readily accessible on site.

The exception of these fuelling locations requirements shall be generators, cranes, backhoes or shovels which may be fuelled at other than the designated fuelling areas. However, no fuelling of backhoes shall be carried out within 30 m of any watercourse.

Any spills apt to cause impairment to the natural environment must be immediately reported by the Contractor to the Contract Administrator and to the local Ministry of the Environment District Office.

Sediment Basins & Settling Ponds

The Contractor shall take all precautions so as not to affect the quality of water as it passes through the area and to prevent eroded material from construction operations from entering streams, watercourses or private property. Appropriate sediment retention measures shall be incorporated in the Work to ensure that sediment discharge to watercourses adjacent to the working area is minimized.

The Contractor shall provide rock check dams and straw bale flow checks and any other sediment or erosion control devices either indicated on the Contract Drawings, detailed in the Special Provisions, as specified by the Permit Issuing Authorities, or as directed by the Contract Administrator. Sediment traps or similar sediment protection shall be constructed for receiving the discharge from dewatering operations. Temporary sediment traps shall be constructed in advance of any work where eroded materials could enter the watercourse. The overflow rate from settling or sedimentation

ponds shall be such that the solids carryover is minimal. The Contractor shall incorporate filter berms or sandbags, as required, to retard and filter run-off prior to discharge to the watercourse.

In general, concentrated run-off from un-stabilized areas shall be intercepted and diverted to stabilized areas under sheet flow conditions. Any water pumped for the purposes of trench or structure excavation or dewatering shall be directed to a settling basin or other device to reduce suspended solids content prior to discharge to a storm sewer, drainage ditch or natural watercourse.

The Contractor shall clean and maintain the sediment traps as required. The traps shall be cleaned when approximately fifty percent (50%) filled with sediment and as directed by the Contract Administrator. The sediment traps shall be maintained until embankment slopes and ditches in the area are reinstated. The traps shall then be removed and the area restored to its original grade or as shown on the Contract Drawings.

The Contractor shall not permit any excavated materials or other material to be deposited in any watercourses except as indicated in the Contract Documents such as rip rap, river stone or clear stone.

The following is a partial list of precautionary measures the Contractor may elect to employ in order to execute the Work within the requirements noted above. NOTE: This listing shall not be taken to represent the full range of precautionary measures available to the Contractor.

1. The use of heavy construction machinery on the streambed and banks shall be avoided unless specifically approved.
2. Where the stream is relocated or diverted temporarily, such relocation or diversion should be done through dry construction. The channel of the new stream (including all slope protection) must be completed before the old stream is diverted into the new channel.
3. The disturbance of low vegetation cover should be avoided as much as possible; the disturbance of soil cover should be minimized and disturbed areas should be vegetated or otherwise protected from erosion as soon as possible.
4. Fill material and excavated materials should be located away from the watercourse and protected from erosion.

5. Any constriction of flow should be compatible with streambed material to prevent erosion or other damage caused by an increased velocity in flow. Stream flow must be maintained throughout the construction period so as not to interfere with fish migration and spawning or other downstream users.
6. Where water quality impairment is unavoidable, measures to protect downstream users must be taken.
7. Upon completion of the project, any temporary fill, culverts, refuse, etc. must be removed from the construction area and deposited in an approved disposal area away from the site.
8. The inlet and the outlet of any culverts should be protected against erosion.
9. All exposed areas should be redeemed or re-vegetated immediately after construction is completed.

Measurement for Payment

No direct measurement of quantities will be made for this work unless specifically noted in the Schedule of Unit Prices. The work will be administered as being part of the related environmental protection items or as part of the overall site work.

NOTE:

Fish Habitat Definition According To The Fisheries Act Of Canada

Fish habitat means "spawning ground and nursery, rearing, food supply and migration areas on which fish depend directly or indirectly in order to carry out their life processes".

Dam Definition According To The Lakes And Rivers Improvement Act

Dam is "a dam or any work which forwards, holds back or diverts water".

D.1.11 Existing Conditions

The Contractor shall clean up and restore all disturbed areas to condition equal to or better than existing conditions using materials equal to or better than existing materials. This includes the removal and disposal of all layout materials, string lines, batter boards and other such materials.

The Contractor shall maintain flow in all existing sewers, drains, ditches, watercourses, house and inlet connections, as applicable.

Sanitary sewers shall not be used for the discharge of water from excavations or dewatering operations.

D.1.12 Damage by Vehicles and Other Equipment

If at any time, in the opinion of the Contract Administrator, damage is being or is likely to be done to any highway or any improvement thereon, other than such portions as are part of the Work, by the Contractor's vehicles or other equipment, whether licensed or unlicensed, the Contractor shall, on the direction of the Contract Administrator and at the Contractor's own expense make changes in or substitutions for such vehicles or other equipment or shall alter loading or shall in some manner remove the cause of such damage to the satisfaction of the Contract Administrator.

D.1.13 Measurement and Payment

Unless otherwise noted in the Schedule of Unit Prices, no measurement of quantities will be made for the General Work and no direct payment will be made for any of the General Work. The cost of such work shall be deemed to be reasonably distributed within the overall cost of the Work.

Payment for payable items shall be based upon the lump sum or unit price bid, as listed in the Schedule of Unit Prices, using actual "as-constructed" quantities (or plan quantities) as determined by the Contract Administrator. In the event of conflict between the Schedule of Unit Prices and OPSS, the basis of payment indicated in the Schedule shall take precedence (as modified by "pay lines" or payment clauses indicated elsewhere in these documents, if applicable).

D.1.14 Dewatering

The Contractor shall dewater excavations/trenches, and maintain the groundwater level at least 0.5 m below the excavation bases, thereby facilitating proper completion of the Work in reasonably dry, stable conditions.

D.1.15 Compaction

Unless otherwise noted, all granular materials shall be compacted to 100 percent (100%) SPMDD and all subsoil to 95 percent (95%) SPMDD.

D.1.16 Utilities

The Contractor's attention is drawn to the possible presence of underground utilities. The locations of such, if indicated on the drawings represent to the best of the Owner and Contract Administrator's knowledge, the approximate location of such utilities. The Contractor shall be responsible for all utility stakeouts as per GC7.01.16 as well as any inspection or test pits required and the inspection of any manholes, catchbasins, sewers or vaults necessary to locate any utility. The Contractor shall be wholly responsible for the accuracy of the information gathered by their own forces.

The work site may also be located directly adjacent to high voltage power transmission and telephone lines. The Contractor shall be aware of such lines at all times and shall utilize equipment and methodologies in the undertaking of the Work that do not constitute a hazard or safety violation under the Occupational Health and Safety Act.



BURNSIDE

Document E

Specifications and Drawings

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Appendix E – Standard Drain Specifications

1.0 General Drain Specifications

1.1 Scope of Specifications

This specification covers the general conditions governing the construction of a Municipal Drain under the most recent revision of the Drainage Act and amendments. All work shall be done in accordance with current and applicable Ontario Provincial Standard Specifications and Drawings (OPSS and OPSD).

1.2 Benchmarks

Benchmarks shall be set at intervals along the course of the work at locations shown on the accompanying plan and/or profile. The Contractor or landowner shall be held liable for the cost of re-establishing benchmarks destroyed. Attention is drawn to Section 13 of the Drainage Act.

1.3 Stakes/Flags/Markers

Stakes, flags or markers are typically set at intervals throughout the course of the work, at all fences and property lines. The Contractor or landowner shall be held liable for the cost of replacing any stakes removed or destroyed.

1.4 Profile

The Drain is to be excavated or installed to regular gradient lines as shown on the profile(s). These gradients show the bottom of the finished drain (open or closed) and are governed entirely by the benchmarks. In the case of closed drains, the gradient is that of the invert of the tile. The profile(s) shows the approximate depth from the surface of the ground to the invert of the tile or drain bottom at the point where the stations are set and from the average bottom of the open drain as taken at the time of survey. Open drains shall be brought to an even gradient in the bottom to prevent standing water. For closed drains, a variation of 25 mm (unless specified otherwise) from the gradient may be deemed sufficient reason for the work to be rejected and required to be rebuilt.

1.5 Clearing

Clearing means the cutting of all standing trees, brush, bushes and other vegetation to a maximum height of 300 mm above original ground level as well as the removal of felled materials and windfalls. Trees measuring 150 mm or more in diameter shall be felled, delimbed, cut into lengths no longer than 4 m and stacked to the designated side of the working space. The work shall not damage or disturb the area outside the areas specified in the Contract Documents.

The work shall consist of clearing all areas of earth excavation, earth surfaces to be covered by embankments up to and including 1.2 m in height, and any other areas specified in the Contract Documents.

No trees, brush or bushes are to be left inside the slopes of the Drain, whether they are located within the limits of the excavation or not. Brush cleared in accordance with the above shall be piled in a location and in a manner satisfactory to the Engineer for burning by the Owner. Unless otherwise specified or directed, these piles shall be a minimum of 100 m apart and shall contain only cleared material. All work shall be done in accordance with OPSS 201.

1.6 Close Cut Clearing

Close Cut Clearing means the cutting of all standing trees, stumps, brush, bushes and other vegetation at original ground level and the removal of felled materials and windfalls. Grubbing means the removal of all stumps, roots, embedded logs, debris and secondary growth. Trees measuring 150 mm or more in diameter shall be felled, delimbed, cut into lengths no longer than 4 m and stacked to the designated side of the working space. The work shall not damage or disturb the area outside the areas specified in the Contract Documents.

The work shall consist of close cut clearing all earth surfaces to be covered by embankments greater than 1.2 m in height, and any other areas specified in the Contract Documents.

No trees, stumps, brush or bushes are to be left inside the slopes of the Drain whether they are located within the limits of the excavation or not. Brush cleared in accordance with the above shall be piled in a location and in a manner satisfactory to the Engineer for burning by the Owner. Unless otherwise specified or directed, these piles shall be a minimum of 100 m apart and shall contain only cleared material. All work shall be done in accordance with OPSS 201.

1.7 Brushing

Brushing means the grinding or chipping to ground level of vegetation in the working space under 150 mm in diameter by means of a hydraulic brushing attachment used with an excavator or approved equivalent. This includes grinding or chipping all standing trees, stumps, brush, bushes and other vegetation to original ground level.

Trees measuring 150 mm or more in diameter shall be felled, delimbed, cut into lengths no longer than 4 m and stacked to the designated side of the working space. The work shall not damage or disturb the area outside the areas specified in the Contract Documents. All work shall be done in accordance with OPSS 201.

1.8 Grubbing

Grubbing means the removal of all stumps, roots, embedded logs, debris and secondary growth.

The work shall consist of grubbing all areas of earth excavation, earth surfaces to be covered by embankments up to and including 1.2 m in height and any other areas specified in the Contract Documents.

Grubbing is not required in swamps. Mechanical stump cutters are permitted, provided the entire root structure is removed. Depressions remaining after grubbing shall be backfilled with suitable earth material and compacted to avoid settlement. When clearing has been previously completed by others, all secondary growth, brush and debris shall be removed.

Piled boulders and surface boulders that are not specified in the Contract Documents for removal and lie within areas to be grubbed shall be removed. The work shall not damage or disturb the area outside the areas specified in the Contract Documents. All work shall be done in accordance with OPSS 201.

1.9 Removal of Surface Boulders and Removal of Piled Boulders

Piled Boulders means any cobbles, boulders or rock fragments that have been placed in fence rows or piles.

Rock means rock as defined in OPSS 206.

Surface Boulder means any boulder or rock fragment that measures 200 mm or greater in any one dimension, extends a minimum of 200 mm above original ground and can be removed without excavation.

The work shall consist of the removal of surface boulders and removal of piled boulders within the areas specified in the Contract Documents. Depressions remaining after removal shall be backfilled with suitable earth material and compacted to avoid settlement. The work shall not damage or disturb the area outside the areas specified in the Contract Documents. All work shall be done in accordance with OPSS 201.

1.10 Fences

The Contractor will be permitted to remove fences to the extent necessary to allow the construction of the Drain and to dispose of any excess material according to the specifications. Any such fences shall be carefully handled to cause no unnecessary damage. Unless allowance has been provided, such fences shall be replaced by the Contractor in as good a condition as found. The Contractor shall supply all material necessary to properly reconstruct any fences. The Contractor shall not leave any fence

open when he is not at work in the immediate area and shall replace the fence in a timely manner, all to the satisfaction of the Engineer.

1.11 Standing Crops and Livestock

Should a property owner wish to harvest any crop along an access route or within the construction working space as set out in the Engineer's Report, then it shall be the responsibility of the property owner to do so prior to construction. Provisions for the loss of, or damage to, crops along the access route or in the construction area ("Working Space") have been made in the Report and such loss or damage shall not be the liability of the Contractor.

The Contractor shall contain construction operations to the working space and width specified. If the construction operations are contained within the specified working space, the Contractor shall not be responsible for damages to crops along the course of the Drain.

It shall be the responsibility of the property owners to keep their livestock clear of the construction area upon receiving 24 hours advance notice by the Contractor. After receiving proper notice, the Owner of the property upon which a drain is being constructed shall be liable for any loss or damage to livestock, the Drain, drain materials or the Contractor's equipment caused by their livestock.

1.12 Notification of Agencies

The Contractor shall notify the appropriate agency before performing any work affecting the land or property of the Ontario Ministry of Transportation (MTO), railway, telephone, pipeline or public utility or regulatory agency. The Contractor shall further agree to perform the work affecting such lands or property in accordance with the specifications and approval/permit of the applicable agency.

1.13 Final Inspections

After substantial completion of the work, but prior to demobilization and final removal of all equipment and materials from the site, the Contractor **must** arrange an on-site **Final** Inspection of the work with the engineer to ensure all aspects of the work have been satisfactorily completed and/or that arrangements have been made to expedite the completion of any outstanding "minor" items or deficiencies. All the work included in the contract, at the time of the Final Inspection, must have the full dimensions and cross-sections called for in the plans and specifications. Notification to the Engineer of this Final Inspection shall be provided at least five days prior and it shall be completed as soon as possible or as soon thereafter as weather conditions permit.

2.0 Specifications for Open Drains

2.1 Geometry

The Drain shall have the full bottom width, at the gradient, specified or shown on the accompanying plan(s), profile(s) and detail sheet(s).

2.2 Alignment

The Drain shall run in straight lines throughout each course except at intersections, where it shall run on a minimum curve of 15 m radius unless otherwise specified. If the work consists of the improvement of an existing open drain, then the centre line of the existing drain must be the centre line of the finished work unless otherwise specified.

2.3 Excavated Material

A clear buffer of at least 3 m shall be left between the top edge of the open drain and the excavated material. Excavated material shall be placed on the side specified or, if not specified, on the lower side of the Drain or on the side opposite trees or fences. No excavated material is to be left in any low runs intended to conduct water into the open drain. It shall be deposited, spread and leveled to a maximum depth of 150 mm, unless specified otherwise and left in a manner such that the lands on which it is spread may be cultivated with adjacent lands by use of ordinary farm machinery. Material excavated in land that is timbered, may be spread to the depth specified or to a maximum depth of 300 mm, whichever is greater. In cultivated areas, the Contractor shall remove stones and boulders on the surface greater than 100 mm diameter from the excavated material and dispose of them in an approved location. Treatment of excavated material shall be to the satisfaction of the Engineer. After the excavated material has been spread and leveled, it shall be seeded as specified.

2.4 Surface Water Inlets

Surface water inlets to the Drain shall be provided through the leveled spoil on each property at obvious natural low runs or at other locations as specified by the Engineer on site at the time of construction. No excavated material shall be left in, or any damage done to a ditch, furrow, pipe, tile or depression that is intended to conduct water into an open drain. The Drain bank at all such inlets shall be riprapped as directed by the Engineer and reimbursed under the appropriate contract item.

2.5 Outlets

During the construction of an open drain, the Contractor shall guard against damaging the outlet of any tributary drain or pipes encountered. The Contractor will be reimbursed for damage to unmarked outlet pipes under the appropriate contract item.

2.6 Access Culverts

All culverts shall be installed with the invert a minimum of 10% of its diameter or as specified below the gradient and the firm bottom of the Drain.

All pipes installed under these specifications shall be carefully bedded to ensure uniform bearing throughout its entire length.

Except where requiring concrete cradle or encasement, all pipes shall be bedded on granular fill as specified or as shown on the contract drawings. Bedding shall be hand placed, tamped and consolidated throughout. Granular fill and bedding shall be gravel or crushed stone having no particles over 20 mm in size, except where otherwise specified.

Concrete cradle and concrete encasement shall be placed as shown on the drawings, and the concrete shall be minimum 25 megapascals (MPa).

From the top of the bedding material to a point 150 mm below the existing grade of the laneway, backfill material shall be clean pit run gravel meeting OPSS Granular B or approved equivalent. The material shall be placed in lifts not to exceed 300 mm in depth and all granular materials shall be compacted to 100% standard proctor maximum dry density (SPMDD) and all subsoil or previously excavated material to 95% SPMDD.

The final 150 mm of the excavation shall be filled with clean crushed gravel conforming to OPSS Granular A specifications. The material shall be placed in lifts not exceeding 150 mm in depth and shall be thoroughly compacted to 100% SPMDD.

2.7 Excavation at Bridge Sites

The excavation at bridge sites shall be to the full depth of the Drain and as nearly as possible the full width of the Drain as specified for the bridge location. The excavation at a bridge site shall be made in a manner to protect the structural integrity of any permanent bridge. A temporary bridge may be carefully removed to allow excavation. The removal of a bridge is to be done in such a manner to cause no damage to the bridge components. Temporary bridges removed to allow excavation shall be replaced in as good a condition as found, so far as material allows. Replacing of such bridges shall be to the satisfaction of the Engineer. The Contractor shall immediately notify the Engineer if it becomes apparent that excavating to a specified gradient will endanger or

underpin any culvert or bridge. The Contractor shall cease excavation at the bridge or culvert site until the Engineer instructs the Contractor to proceed.

2.8 Seeding

Unless indicated otherwise in the Special Provisions, the Contractor shall seed all disturbed areas which includes newly excavated drain banks and leveled spoil (where specified) with the OPSS (MTO) Standard Roadside Seed Mix, consisting of 55% Creeping Red Fescue, 27% Kentucky Bluegrass, 15% Perennial Ryegrass and 3% White Clover, at an application rate of 100 kg/10,000 m², plus a nurse crop of Fall Rye Grain or Winter Wheat Grain at an application rate of 60 kg/10,000 m², at the end of each working day.

2.9 Temporary Sediment Controls

Unless indicated otherwise in the Special Provisions, the Contractor shall install an approved sediment control measure at the downstream end of the open drain excavation and at any other locations specified. The Contractor shall remove any accumulated sediment at regular intervals or as directed by the Engineer. The Contractor shall then remove these temporary measures, and any accumulated sediment therein, after the new open drain has stabilized and only after authorized by the Engineer or the Drainage Superintendent.

2.10 Permanent Sediment/Stilling Basins

The Contractor shall construct and maintain sediment control or stilling basins as specified in the Special Provisions.

2.11 Rip-Rap and Non-woven Geotextile

Rip-Rap – The Contractor shall supply and install a 450 mm thickness of 150 mm to 300 mm (R-50) diameter quarry stone rip rap with filter cloth underlayment for culvert and pipe outlets. This will include areas of the existing bank where erosion or bank slumping has occurred, as directed on-site by the Engineer. For the area surrounding catchbasins, unless noted otherwise, the contractor shall supply and install a 300 mm thickness of 100 to 150 mm (R-10) diameter quarry stone rip-rap with filter cloth underlayment.

Non-Woven Geotextile - All geotextile used for tile wrapping under these specifications shall be non-woven Terrafix® 200R (or equivalent). All geotextile used under these specifications for heavy duty applications such as under rip-rap surrounding catchbasins, and at tile outlets into drains shall be non-woven Terrafix® 270R (or equivalent).

3.0 Specifications for Closed Drains

3.1 Materials

Tile, tubing and pipe materials supplied by the Contractor shall be approved by the Engineer prior to being incorporated in the work. The Contractor shall be responsible for the unloading and placement of all materials required for the Municipal Drain construction. Such unloading and placement shall be undertaken in a manner acceptable to the Engineer using only the specified and approved access routes and working space.

Concrete Drain Tile (CDT) - All CDT installed under these specifications shall have a circular cross section with a minimum 2000D, meeting the latest revision of CSA A257.1-14 and ASTM C412. The manufacturer shall provide the Engineer with a copy of all available test results for the materials being shipped to the project site. The Engineer shall have the right to order any additional tests he deems necessary to be performed on the tile taken from inventory prior to shipment from the manufacturer's plant. The cost of such additional tests shall be borne by the Contractor.

Plastic Drainage Tubing (PDT) - All PDT installed under these specifications shall be manufactured in accordance with the latest revision of the Drainage Guide for Ontario, as published by the Ministry of Agriculture and Food.

Corrugated Steel Pipe (CSP) - All CSP installed under these specifications shall be galvanized spiral wound corrugated steel pipe. All corrugated steel pipe installed under these specifications shall conform to CSA G401.

- CSP tile outlet pipes shall be up to 1,200 mm in diameter and 2.0 mm in thickness and shall have 68 mm x 13 mm corrugations unless specified otherwise.
- CSP culverts shall be up to 1,000 mm in diameter and 2.8 mm in thickness and shall have 68 mm x 13 mm corrugations unless specified otherwise. CSP culverts equal to and larger than 1,200 mm in diameter shall be 3.5 mm in thickness and shall have 125 mm x 25 mm corrugations unless specified otherwise.

High Density Polyethylene (HDPE) Pipe - All corrugated or dual wall smooth walled HDPE pipe (Armtex BOSS 2000® or equivalent) installed under these specifications as culverts or as part of a new closed drain shall be manufactured in accordance with the latest revision of OPSS 1840 and shall have a pipe stiffness of 320 kPa.

- All perforated dual-wall smoothwalled HDPE pipe joining systems shall be soil-tight split coupler unless specified otherwise, conforming to CSA B182.8. As specified, perforated pipe shall include a knitted sock or non-woven geotextile covering (Terrafix® 200R or equivalent).
- All solid dual-wall smoothwalled HDPE pipe shall be soil-tight split coupler, unless specified otherwise, conforming to CSA B182.8.

- All watertight solid dual-wall HDPE pipe joining systems shall be water-tight bell and spigot, complete with gasketed connections unless specified otherwise, conforming to CSA B182.6.

Steel Reinforced Polyethylene (SRPE) Pipe - All smooth walled SRPE pipe (Armtec DuroMaxx® or equivalent) installed under these specifications as culverts or as part of a new closed drain shall be manufactured in accordance with the latest revision of OPSS 1840. All SRPE pipe shall conform to AASHTO M294.

- All solid SRPE pipe shall be soil-tight split coupler, unless specified otherwise, conforming to CSA B182.14.
- All watertight solid SRPE pipe joining systems shall be water-tight bell and spigot, complete with gasketed connections unless specified otherwise, conforming to CSA B182.15.

Polypropylene (PP) Pipe - All triple-wall smooth walled PP pipe (ADS SaniTite® HP or equivalent) installed under these specifications as culverts or as part of a new closed drain shall be manufactured in accordance with the latest revision of OPSS 1843 and shall have a pipe stiffness of 320 kPa.

- All watertight solid triple-wall PP pipe joining systems shall be water-tight bell and spigot, complete with gasketed connections unless specified otherwise, conforming to CSA B182.13.

Non-Woven Geotextile - All geotextile under these specifications shall conform to OPSS 1860. All geotextile used for tile wrapping under these specifications shall be non-woven Terrafix® 200R (or equivalent). All geotextile used under these specifications for heavy duty applications such as under rip-rap surrounding catchbasins, and at tile outlets into drains shall be non-woven Terrafix® 270R (or equivalent).

3.2 Drain Gradient and Verification

The proposed gradient shall be established using laser grade control equipment, cross-head boning rods together with horizontal sight-bars at stations above and below the point where the tile is being laid or other method acceptable to the Engineer.

If the Engineer has not checked the tile, inspection points shall be left at intervals of not greater than 50 m for sections with gradients less than 0.5% and at intervals of not greater than 30 m for sections with gradients above 0.5%. Inspection points shall also be left at all structures and all changes in gradient. Other inspections points may be required from time to time as requested by the Engineer.

3.3 Tile Laying Including Topsoil Stripping

In the case of the installation of CDT, and unless specified otherwise in the Special Provisions, the Contractor shall strip the topsoil a full width of the trenching machine plus 0.3 m on each side prior to installing the new tile with the trencher as part of the work under the appropriate item and no extra payment will be made for this stripping. After installation, confirming gradient, blinding, and back filling of the trench, the topsoil shall be replaced throughout the entire length of the Drain. The Contractor shall take into consideration the settlement of the backfill material over the trench prior to replacing the topsoil.

All CDT shall be installed with a wheel-type trencher and each tile shall be laid firmly and carefully in a smooth bottomed trench so that successive tiles align both vertically and horizontally as tightly as possible; the maximum allowable space between successive tiles shall be 6 mm.

All joints of the CDT must be completely wrapped with geotextile (Terrafix® 200R or equivalent) as part of the work under the appropriate item and no extra payment will be made for this wrapping. The wrap on each joint shall be a minimum of:

- 300 mm wide for tile sizes smaller than 450 mm diameter.
- 600 mm wide for tile sizes 450 mm diameter and above.

The Contractor is reminded that the widths of the tile trenches are to be kept to a minimum. It is recommended that the minimum trench width be 300 mm greater than the outside diameter of the tile or 150 mm on each side of the tile being installed. It is recommended that the maximum trench width be 600 mm greater than the outside diameter of the tile or 300 mm on each side of the tile being installed.

All PDT shall be installed with a self-propelled drainage plow.

All obstructions, dirt or foreign material shall be removed from the inside of the tile prior to laying.

Tile drains shall be constructed at an offset from, and parallel to, any existing drain, defined watercourse or low run. The Contractor shall exercise care not to disturb any existing private or municipal tile drains which follow the same course as the new drain.

3.4 Reconnection of Existing Private Tile

Any subsurface drain encountered by the Contractor when constructing a Municipal Drain under these specifications shall be reconnected to itself and not connected to the new Municipal Drain, unless approved otherwise by the Engineer. The accepted practice for reconnecting existing tile drains will be to compact sub-base material from the new trench bottom to the underside of the existing tile. Rigid pipe, HDPE (320 kPa)

or approved equivalent, with a diameter equal or larger than the existing tile with a minimum length of 0.6 m beyond the trench width to the existing tile. This connection shall be made only where the existing tile is operable and in good condition. When completing backfilling of the Municipal Drain trench at such a location, the Contractor shall take sufficient care to ensure that the new connecting pipe is not damaged.

The Contractor shall provide a unit price per connection and the unit price shall include the supply of all material, labour and equipment necessary to make the connection. Further, the Contractor shall keep a written record of all sub-surface drains encountered. All connections completed shall be reviewed daily with the Engineer and a summary of all subdrains shall be provided to the landowner.

3.5 Connection of Existing Private Tiles to Municipal Drain

A subsurface drain encountered during construction can be connected to the Municipal Drain if requested by the landowner and approved by the Engineer prior to commencement of the connection. The Drain shall be connected to the Municipal Drain either by core drilling through the CDT or a prefabricated fitting for HDPE. The core shall be drilled on-site and backfilled as per the specified detail included within the drawings. Any tile drains connected to the Municipal Drain shall have the downstream end of the tile plugged to prevent entry of foreign material into the tile.

3.6 Trench Backfilling

As the laying of the tile progresses, partial filling or blinding shall be made at the sides of the trench sufficient to hold the tiles securely in place. The Contractor shall place the remainder of the excavated material carefully when backfilling the trench. Any excess backfill material shall be mounded over the trench such that future settlement and compaction around the new tile can occur without creating a depression over the width of the trench. The Contractor shall not operate construction equipment over any backfilled trench, except as specified in Trench Crossings. Care shall be exercised in backfilling the trench to see that no stone or boulder capable of damaging the tile is used in the backfill material adjacent to the tile. In no case shall stones having a diameter greater than 150 mm be used in backfill material within 300 mm of the tile. The Contractor shall backfill any open tile trenches at the end of each working day except for inspection points as specified. The Contractor shall be entirely responsible for any damage to the new tile throughout the warranty period.

3.7 Trench Crossings

The Contractor shall not cross any backfilled trench with any construction equipment or vehicles, except at only **one** designated crossing location on each property which shall be marked in an acceptable manner. The Contractor shall ensure that the bedding and backfill material at this designated crossing location is properly placed and compacted to

adequately support the equipment and vehicles that may cross the trench. The Contractor may undertake any other approved work to ensure the integrity of the tile at the crossing location. The Contractor shall ensure that no equipment or vehicles are allowed to travel along the length of any trench. The Contractor shall be entirely responsible for any damage to the new tile throughout the warranty period.

3.8 Outlet Protection

The outlet end of a tile drain shall normally consist of a 6 m length of CSP or HDPE fitted with a rodent proof grating which is hinged at the top to allow the exit of foreign material from the tile. An outlet marker shall be supplied and installed.

Unless otherwise specified, the end of the CSP or HDPE shall be protected with the type of riprap on geotextile as specified by the Engineer from a point 500 mm above the Drain bottom on the opposite side of the Drain, across the Drain bottom, and for the full height of the Drain side slope where the pipe is located. The minimum width of this riprap shall be equal to the outside diameter of the outlet pipe plus 2 m.

3.9 Precast Concrete Structures

Junction Box (JB) means an acceptable precast concrete structure installed and buried below the surface of the ground to facilitate two or more tiles meet and connect.

Catchbasin (CB) or Ditch Inlet Catchbasin (DICB) means an acceptable precast concrete structure installed at or slightly below the surface of the ground where two or more tiles meet and connect and that is intended to accommodate surface water.

Observation Box (OB) means an acceptable precast concrete structure installed above the surface of the ground where two or more tiles meet and connect and that is intended to only inspect the tile connected thereto.

Unless specified otherwise, JB's, CB's, DICB's and OB's shall be supplied by a precast manufacturer meeting the Engineer's approval. An "approximate elevation of top" of each structure has been indicated on the "Structures Table"; however, each structure shall be placed onsite such that the exact horizontal and vertical location in the field is as directed by the Engineer. All structures shall have a knock out, set at a minimum of 100 mm above the elevation of the outlet or as specified, placed in **all** sides not used by the Municipal Drain. Knock outs must be of a size capable of connecting a HDPE pipe with a minimum inside diameter of 250 mm. All structures shall have a minimum 300 mm deep sump, unless specified otherwise.

Non-shrink grouting material, unless specified otherwise, shall be placed around all pipes connected to the structure. In addition, the exterior of all grouted connections shall be completely wrapped with geotextile (similar to a wrapped joint). Geotextile shall also be placed in the joints between all sections of the box and around the full perimeter of the box at these joints. For the area surrounding catchbasins, unless noted otherwise, the contractor shall supply and install a 300 mm thickness of 100 to 150 mm (R10) diameter quarry stone rip rap with filter cloth underlayment.

Hot dipped galvanized, heavy duty, three-sided protruding type bird cage grates, shall be supplied for all CBs, DICBs or OBs, unless specified otherwise. All DICBs shall have a slope of 2H:1V, unless specified otherwise. Grates shall be fastened to the structure using non-corrosive fasteners as recommended by the Ontario Farm Safety Association. JB's shall have no sump and shall have a minimum 150 mm thick solid reinforced concrete tops.

Post and sign type markers shall be supplied and installed at each at or above ground structure.

3.10 Stripping for Deep Tile Installation

Where the tile installation depth exceeds the digging or plowing depth of the Contractor's equipment, the Contractor shall undertake any stripping that may be necessary in a manner such that when restored, the topsoil returns uncontaminated to the top of the stripped area. This would normally mean that the topsoil would be stripped and piled separately from the subsoil. The Contractor shall have regard for the working space provided for such stripping operations. Unless approved otherwise by the Engineer prior to work being undertaken, stripping shall be done using a hydraulic excavator. The cost of any stripping shall be included in the price provided for the tile installation.

3.11 Stone removal

The Contractor shall remove and dispose of any stones larger than 100 mm that remain on the surface of the working space after completion of construction

4.0 Specifications for Road Crossing (Boring or Directionally Drilled Method)

4.1 General

When a drainage works crossing of a Road is to be carried out by the jacking and boring method, the following specifications shall apply as well as OPSS 416. The Contractor shall supply all labour, equipment and material unless specified otherwise in the Special Provisions.

4.2 Pipe Material

The pipe or casing used in the crossing shall be smoothwall welded steel pipe (SWWSP) with a minimum wall thickness as specified in the Special Provisions as per OPSS.MUNI 1802. The pipe shall be of a sufficient length so that during placement no part of any excavation shall be closer to the edge of the gravel shoulder than 2 m and the slope of the excavation from the top to the bottom shall be 1 m vertical to 1 m horizontal (1:1).

4.3 Extensions

All extensions of the SWWSP installed via the jacking and boring shall be completed with SWWSP of identical diameter and wall thickness (either from structure to structure or to the limits of the right-of-way). Extensions of any other pipe material will not be acceptable. Pipe shall be placed on undisturbed native material with a minimum of 150 mm drainage stone bedding. Excavated material will not be permitted for use as bedding material.

4.4 Installation Method

The pipe or casing shall be placed by means of continuous flight augering inside the casing and simultaneous jacking to advance the casing immediately behind the tip of the auger. Complete augering of a tunnel slightly larger than the pipe and placing the entire length by pulling or jacking after completion of the tunnel **will not be acceptable**. Once a crossing is completed, the area around the outer annulus and any other openings from the jack and bore shall be grouted at the time of construction.

The Auger pit excavated to accommodate the boring machine shall be constructed such that the edge of the pit shall not be closer than 2 m to the edge of the gravel shoulder. The slope of the pit from the top edge at the shoulder to the bottom of the pit shall not be steeper than 1 m vertical to 1 m horizontal (1:1). Shoring, sheeting, etc. shall be in accordance with all governing regulations and Acts. The pit shall be left open for an absolute minimum length of time and if possible, work should be so scheduled so that the excavation, placement of pipe and backfilling takes place in one working day.

During excavation, the existing topsoil shall be stripped and placed in a separate pile for replacement on top upon completion of the backfilling operation; a minimum of 150 mm of topsoil is required and if necessary, the Contractor shall and place imported topsoil. In either case, the topsoil area over the excavation shall be seeded with the specified grass seed mixture to the requirements of the Road Authority. The finished work shall be left in a clean and orderly condition slightly higher than the adjacent ground so that after settlement it will conform to the surrounding ground. Excess material shall NOT be spread on the road allowance or within the right-of-way without the express written consent of the Road Authority but shall be hauled away and disposed of at the expense of the Contractor.

4.5 Permits and Traffic

The Contractor shall be responsible for providing the Road Authority at least seven days' notice in writing before commencing any work on any right-of-way. If the crossing is on a right-of-way that requires a Municipal or Provincial Permit, the Contractor shall ensure that the Permit is obtained before any work commences.

The Contractor shall be responsible for providing, erecting, maintaining and removing all signage and traffic control in accordance with the Ontario Traffic Manual (OTM) and the OTM Book 7 Temporary Conditions - Field Edition, as noted in Document D of the Tender/Contract.

2 CONTRACT DRAWINGS

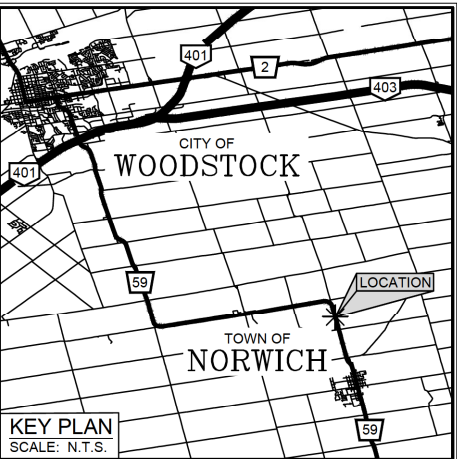
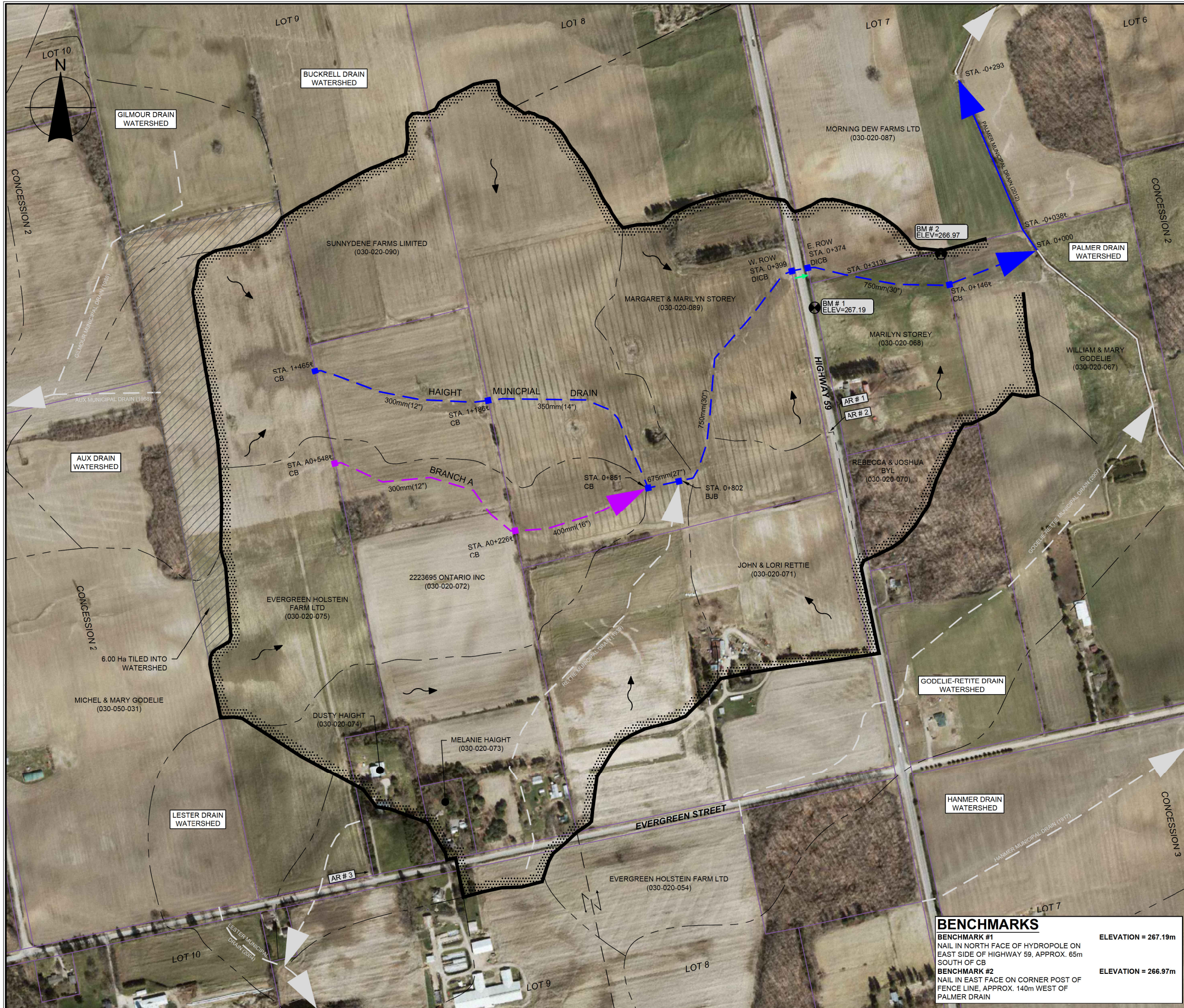
The Work required under this Contract shall be performed in strict accordance with the following drawings:

| <u>Drawing No.</u> | <u>Drawing Title</u> |
|---------------------------|--|
| 1 of 5 | Watershed Plan |
| 2 of 5 | Main Drain Profile |
| 3 of 5 | Highway 59 Crossing & Sta. 0+802 & Sta. 0+851 Detail |
| 4 of 5 | Branch A Profile & Typical Details |
| 5 of 5 | Stilling Basin Details |
| 1 of 3 | Catch Basin Details |
| 2 of 3 | Catch Basin Details |
| 3 of 3 | Catch Basin Details |

These drawings are the Contract Drawings and form part of this Contract. Additional drawings showing details in accordance with which the Work is to be constructed may be furnished from time to time by the Contract Administrator, if found necessary, to supplement or supersede the drawings hereto attached. Such additional drawings shall thereupon become a part of this Contract. The Contract Drawings are complementary to the Contract Documents; any item or information found in one applies to both.

The Contractor shall be governed by the figured dimensions, as given on the drawings. The Contractor shall confirm all relevant dimensions and report any discrepancies to the Contract Administrator immediately.

Where required dimensions are not shown in figures, the Contractor shall obtain the said dimensions from the Contract Administrator before proceeding with the construction of the portion of the Work to which they refer. In every case, detailed drawings shall take precedence over general drawings. In no instance shall dimensions be scaled from drawings.



LEGEND

WATERSHED BOUNDARY: Dashed line with dots

SUB WATERSHED BOUNDARY: Dashed line

PROPOSED WORK LOCATION & DIRECTION: Blue arrow with 'OPEN' or 'CLOSED' and 'DESC.'

CATCH BASIN/JUNCTION BOX: Black square

ROLL NUMBER: (030-020-067)

SHARED ROLL NUMBER: Z-shaped line

EXISTING DRAIN CROSSING: Wavy line with arrow

SURFACE FLOW ARROW: Black arrow

EXISTING DRAIN LOCATION & DIRECTION: Grey arrow with 'OPEN' or 'CLOSED'

BENCHMARK LOCATION: Circle with crosshair and 'BM #1 ELEV=267.19'

EXISTING SURFACE CULVERT: Green arrow

- Notes
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 4. All property lines are approximate and for information purposes only.

FOR TENDER

Professional Engineers Ontario Limited Licensee

Name: W. P. MACINTYRE
Number: 100179975
Category: Civil Engineering
Limitations: *Full Registration*
This licence is subject to the limitations detailed on the certificate.
Association of Professional Engineers of Ontario

| No. | Issue / Revision | Date | Auth. |
|-----|--------------------------------|------------|-------|
| 1 | ISSUED FOR ONSITE MEETING | 2023/06/20 | WPM |
| 2 | ISSUED FOR INFORMATION MEETING | 2024/10/29 | WPM |
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| 4 | ISSUED FOR TENDER | 2025/09/02 | WPM |

BURNSIDE

R.J. Burnside & Associates Limited
35 Perry Street
Woodstock, Ontario, N4S 3C4
telephone (519) 271-5111 fax (519) 271-3790
web www.rjburnside.com

Client: **TOWNSHIP OF NORWICH**

285767 AIRPORT ROAD
NORWICH, ONTARIO
N0J1P0

Drawing Title: **HAIGHT MUNICIPAL DRAIN**

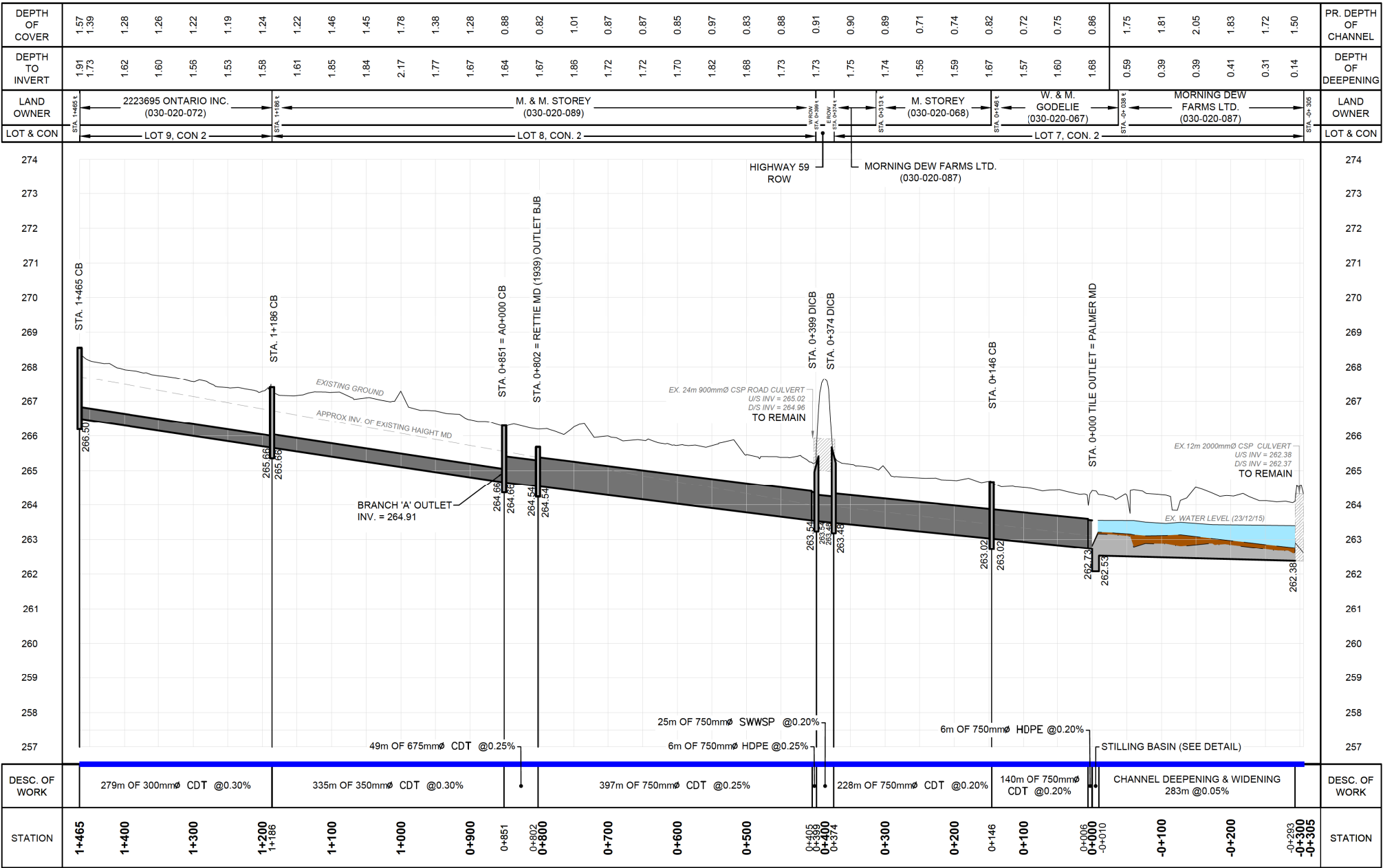
WATERSHED PLAN

| | | | | |
|--------------------|----------------|-------------------------------|----------------|------------------------------|
| Designed CGT | Checked WPM | Drawn EM | Checked WPM | Drawing No. 1 of 5 |
| Date 2025/09/02 | | Project No. 300057028.0000 | | |
| Scale 1:4,000 | | 0 40 80 160 240m | | |

BENCHMARKS

BENCHMARK #1
NAIL IN NORTH FACE OF HYDROPOLE ON EAST SIDE OF HIGHWAY 59, APPROX. 65m SOUTH OF CB
ELEVATION = 267.19m

BENCHMARK #2
NAIL IN EAST FACE ON CORNER POST OF FENCE LINE, APPROX. 140m WEST OF PALMER DRAIN
ELEVATION = 266.97m



| PIPE TABLE | | | | | | NOTES |
|---------------|---------------------|--------------|---------|-------|-----------|--|
| PIPE MATERIAL | JOINING METHOD | DIAMETER(mm) | STATION | | LENGTH(m) | |
| | | | FROM | TO | | |
| HDPE | BELL & SPIGOT | 750 | 0+000 | 0+006 | 6 | OUTLET PIPE c/w RODENT GRATE, 320kPa STIFFNESS |
| CONCRETE | GEO-TEXTILE WRAPPED | 750 | 0+006 | 0+374 | 368 | 2000D |
| SWWSP | WELDED | 750 | 0+374 | 0+399 | 25 | 9.53mm THICKNESS, HWY 59. CROSSING |
| HDPE | BELL & SPIGOT | 750 | 0+399 | 0+405 | 6 | 320kPa STIFFNESS, c/w 22.5 DEG. ELBOW |
| CONCRETE | GEO-TEXTILE WRAPPED | 750 | 0+405 | 0+802 | 397 | 2000D |
| CONCRETE | GEO-TEXTILE WRAPPED | 675 | 0+802 | 0+851 | 49 | 2000D |
| CONCRETE | GEO-TEXTILE WRAPPED | 350 | 0+851 | 1+186 | 335 | 2000D |
| CONCRETE | GEO-TEXTILE WRAPPED | 300 | 1+186 | 1+465 | 279 | 2000D |

| STRUCTURE TABLE | | | | | | | |
|-----------------|------|----------|------------------------|----------|----------------|-------------|--------|
| STATION | TYPE | SIZE(mm) | TOP/LOW WALL ELEV. (m) | GRATE | NOTES | Inverts (m) | |
| | | | | | | u/s | d/s |
| 0+146 | CB | 900x1200 | 264.67 | BIRDCAGE | SEE CB DETAILS | 236.02 | 236.02 |
| 0+374 | DICB | 900x1200 | 265.23 | BIRDCAGE | SEE CB DETAILS | 263.48 | 263.48 |
| 0+399 | DICB | 900x1200 | 264.97 | BIRDCAGE | SEE CB DETAILS | 263.54 | 263.54 |
| 0+802 | BJB | 900x1200 | N/A | BIRDCAGE | SEE CB DETAILS | 264.54 | 264.54 |
| 0+851 | CB | 900x1200 | 266.31 | BIRDCAGE | SEE CB DETAILS | 264.66 | 264.66 |
| 1+186 | CB | 600x600 | 268.40 | BIRDCAGE | SEE CB DETAILS | 265.66 | 265.66 |
| 1+465 | CB | 600x600 | 268.55 | BIRDCAGE | SEE CB DETAILS | - | 266.50 |

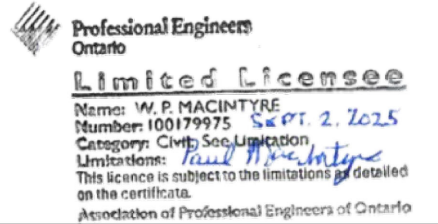
BENCHMARKS

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NAIL IN NORTH FACE OF HYDROPOLE ON EAST SIDE OF HIGHWAY 59, APPROX. 65m SOUTH OF CB

BENCHMARK #2 ELEVATION = 266.97m
NAIL IN EAST FACE OF CORNER POST OF FENCE LINE, APPROX. 140m WEST OF PALMER DRAIN

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FOR TENDER



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telephone (519) 271-5111 fax (519) 271-3790
web www.rjburnside.com

Client

TOWNSHIP OF NORWICH

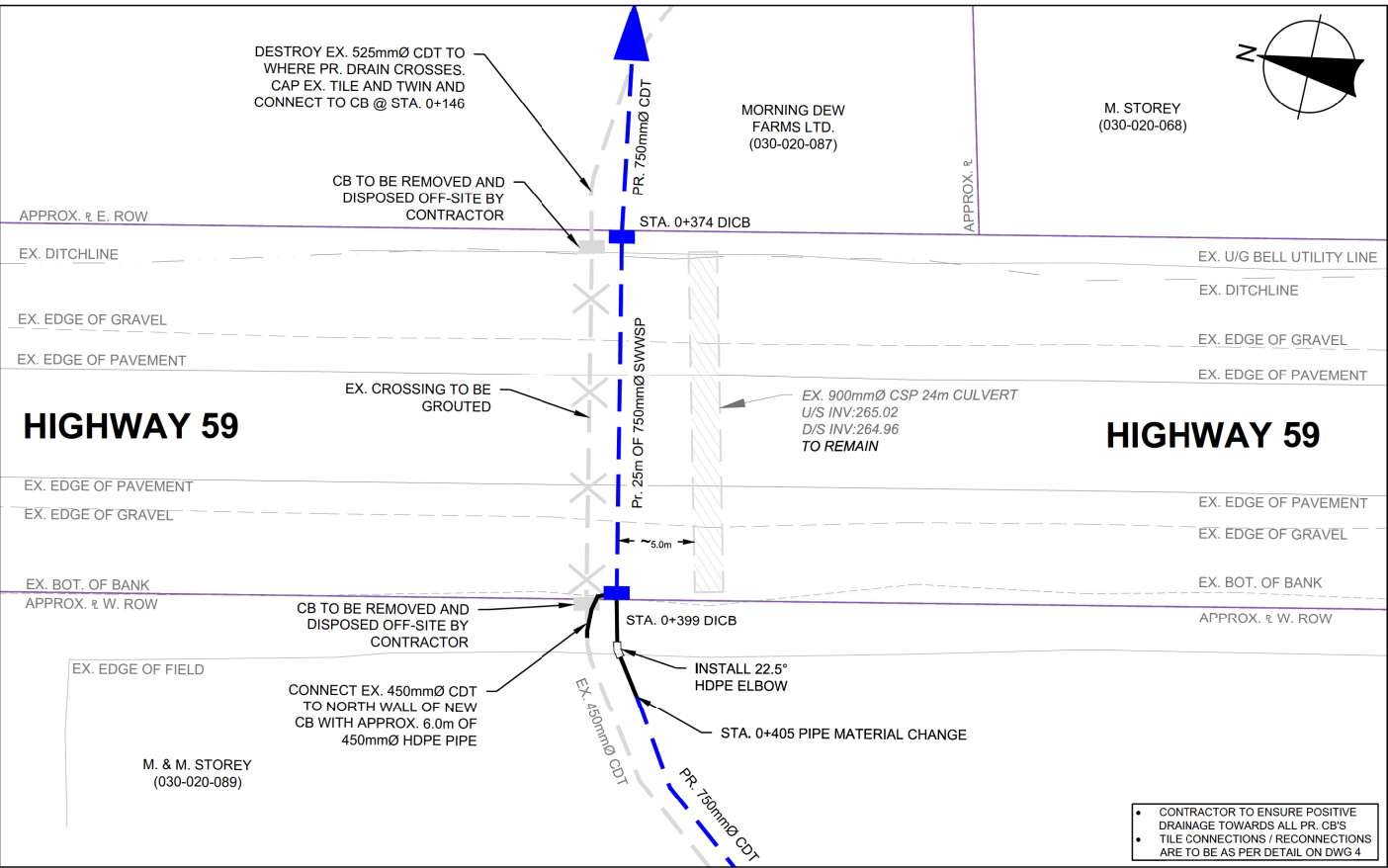
285767 AIRPORT ROAD
NORWICH, ONTARIO
N0J1P0

Drawing Title

HAIGHT MUNICIPAL DRAIN

MAIN DRAIN PROFILE

| | | | | |
|--------------------------------|----------------|-------------------------------|----------------|---------------|
| Designed CGT | Checked WPM | Drawn EM | Checked WPM | Drawing No. |
| Date 2025/09/02 | | Project No. 300057028.0000 | | 2 of 5 |
| Scale Horizontal 1:5,000 | | Vertical 1:50 | | |



HIGHWAY 59 CROSSING DETAIL
SCALE 1:350

BENCHMARKS

BENCHMARK #1 ELEVATION = 267.19m
NAIL IN NORTH FACE OF HYDROPOLE ON EAST SIDE
OF HIGHWAY 59, APPROX. 65m SOUTH OF CB
BENCHMARK #2 ELEVATION = 266.97m
NAIL IN EAST FACE OF CORNER POST OF FENCE LINE,
APPROX. 140m WEST OF PALMER DRAIN

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FOR TENDER

Professional Engineers
Ontario
Limited Licensee
Name: W. P. MACINTYRE
Number: 100179975
Category: Civil Engineering
Limitations: *Sept. 2, 2025*
This licence is subject to the limitations detailed on the certificate.
Association of Professional Engineers of Ontario

| No. | Issue / Revision | Date | Auth. |
|-----|--------------------------------|------------|-------|
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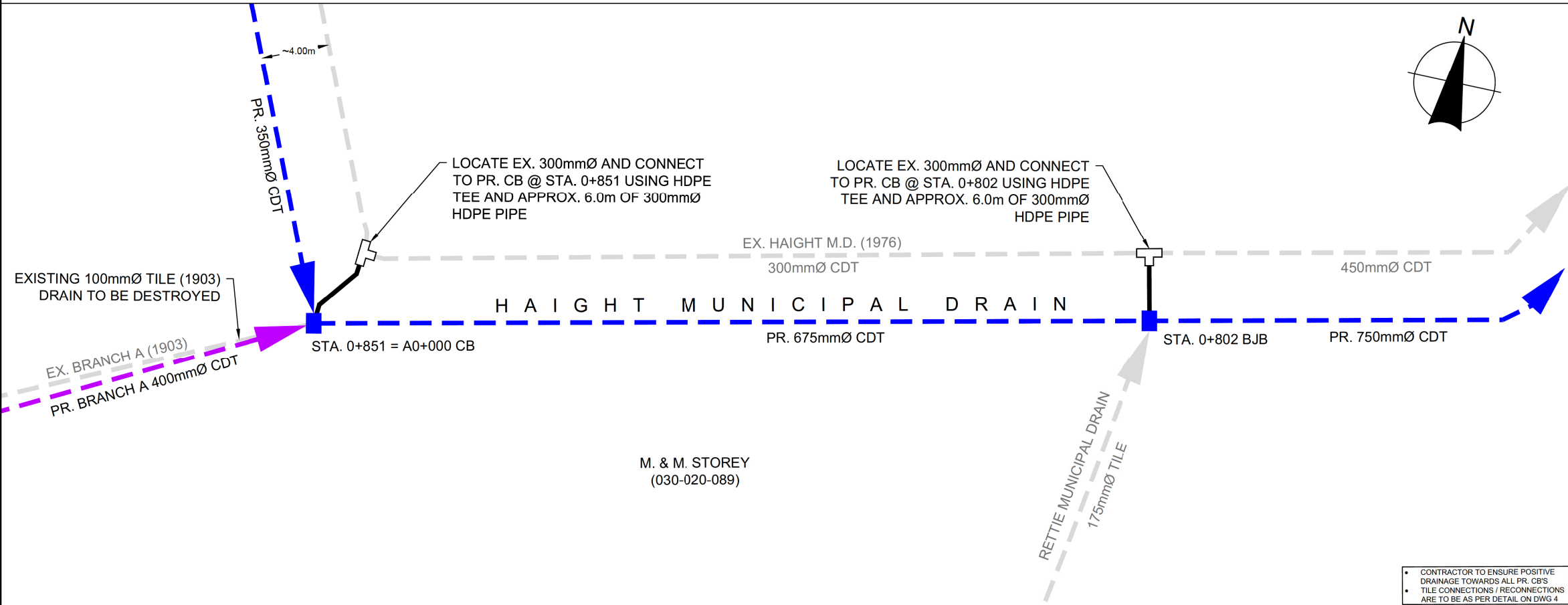
Client
TOWNSHIP OF NORWICH
285767 AIRPORT ROAD
NORWICH, ONTARIO
N0J1P0



Drawing Title
HAIGHT MUNICIPAL DRAIN

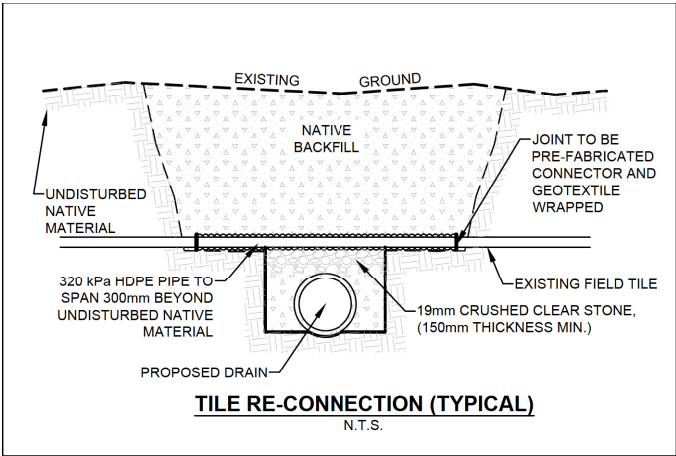
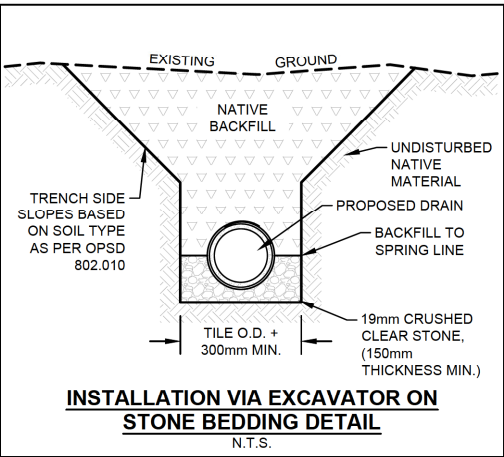
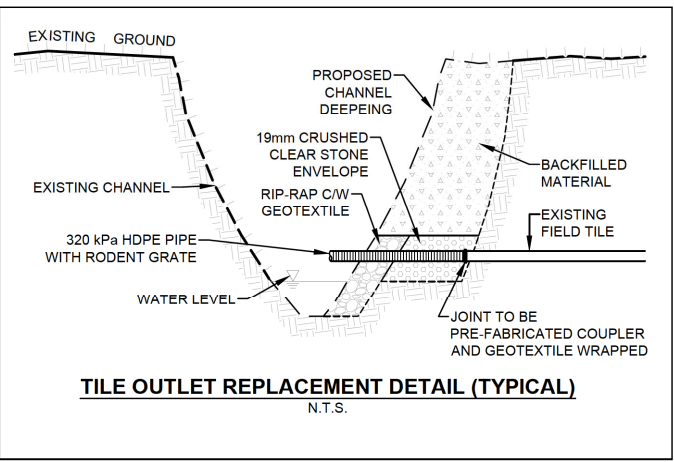
HIGHWAY 59 CROSSING & STA. 0+802 & STA. 0+851
DETAIL

| | | | | |
|------------|-------------|----------------|---------|----------------------------------|
| Designed | Checked | Drawn | Checked | Drawing No. 3 of 5 |
| CGT | WPM | EM | WPM | |
| Date | Project No. | | | |
| 2025/09/02 | | 300057028.0000 | | |
| Scale | | | | |
| AS NOTED | | | | |



CATCH BASIN/JUNCTION BOX DETAIL STA. 0+851 & STA. 0+802
SCALE 1:200


| | | | | | | | | | |
|---------------|---|--------|--------|--------|------------------|--------|--------|--|---------------|
| 275 | <p>268.07</p> <p>265.95</p> <p>265.8</p> <p>264.91</p> <p>6m OF 300mm\varnothing HDPE @0.65%</p> <p>STA. A0+548 CB</p> <p>STA. A0+226 DIRECTIONAL BERM</p> <p>A0+000 CB = STA. 0+851</p> | | | | | | | | 275 |
| 274 | | | | | | | | | 274 |
| 273 | | | | | | | | | 273 |
| 272 | | | | | | | | | 272 |
| 271 | | | | | | | | | 271 |
| 270 | | | | | | | | | 270 |
| 269 | | | | | | | | | 269 |
| 268 | | | | | | | | | 268 |
| 267 | | | | | | | | | 267 |
| 266 | | | | | | | | | 266 |
| 265 | | | | | | | | | 265 |
| 264 | | | | | | | | | 264 |
| 263 | | | | | | | | | 263 |
| 262 | | | | | | | | | 262 |
| 261 | | | | | | | | | 261 |
| DESC. OF WORK | 316m OF 300mm \varnothing CDT @0.65% | | | | | | | 226m OF 400mm \varnothing CDT @0.40% | DESC. OF WORK |
| STATION | A0+548 | A0+500 | A0+400 | A0+300 | A0+232 A0+226 | A0+200 | A0+100 | A0+000 | STATION |



BENCHMARK #1 **ELEVATION = 267.19m**
NAIL IN NORTH FACE OF HYDROPOLE ON EAST SIDE
OF HIGHWAY 59, APPROX. 65m SOUTH OF CB
BENCHMARK #2 **ELEVATION = 266.97m**
NAIL IN EAST FACE OF CORNER POST OF FENCE LINE,
APPROX. 140m WEST OF PALMER DRAIN

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FOR TENDER

 Professional Engineers
Ontario

Limited Licensee

Name: W. P. MACINTYRE
Number: 100179975 *Sept. 2, 2025*
Category: Civil See Limitation
Limitations: *Paul MacIntyre*
This licence is subject to the limitations as detailed on the certificate.
Association of Professional Engineers of Ontario

| No. | Issue / Revision | Date | Auth. |
|-----|--------------------------------|------------|-------|
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| | | | |

 **BURNSIDE**

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web www.rjburnside.com

Client

TOWNSHIP OF NORWICH

285767 AIRPORT ROAD
NORWICH, ONTARIO
N0J1P0



Drawing Title

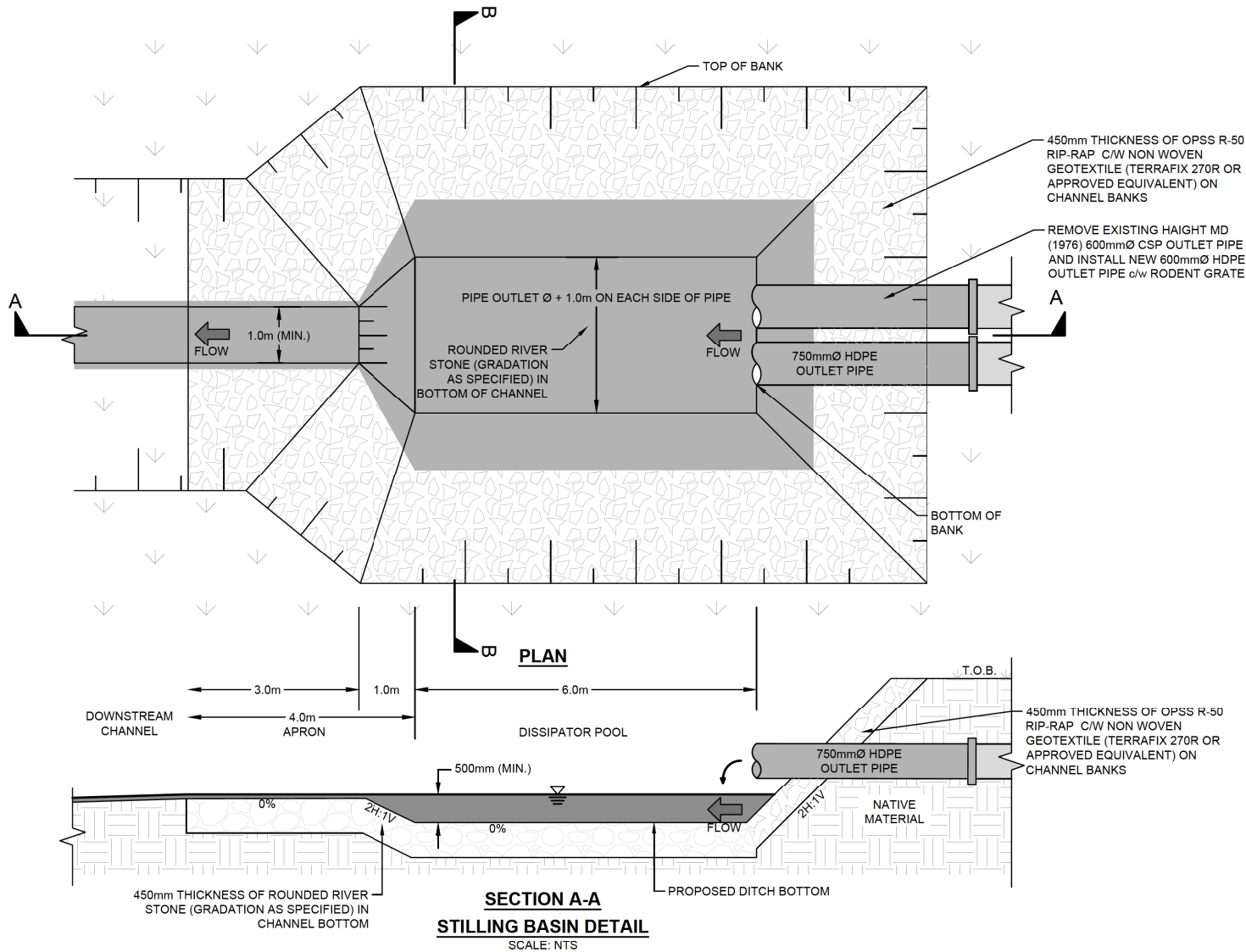
HAIGHT MUNICIPAL DRAIN

BRANCH A PROFILE & TYPICAL DETAILS

| | | | | |
|--------------------------------|-------------------------------|-------------|----------------|----------------------------------|
| Designed CGT | Checked WPM | Drawn EM | Checked WPM | Drawing No. 4 of 5 |
| Date 2025/09/02 | Project No. 300057028.0000 | | | |
| Scale Horizontal 1:5,000 | | | | |
| Vertical 1:50 | | | | |

| STRUCTURE TABLE | | | | | | | |
|-----------------|------|----------|---------------------------|----------|----------------|-------------|--------|
| STATION | TYPE | SIZE(mm) | TOP/LOW WALL ELEV. (m) | GRATE | NOTES | Inverts (m) | |
| | | | | | | u/s | d/s |
| A0+226 | DICB | 600x600 | 267.42 | BIRDCAGE | SEE CB DETAILS | 265.95 | 265.81 |
| A0+548 | CB | 600x600 | 269.45 | BIRDCAGE | SEE CB DETAILS | - | 268.01 |

| PIPE TABLE | | | | | | |
|---------------|---------------------|--------------|---------|--------|-----------|--------------------------------------|
| PIPE MATERIAL | JOINING METHOD | DIAMETER(mm) | STATION | | LENGTH(m) | NOTES |
| | | | FROM | TO | | |
| CONCRETE | GEO-TEXTILE WRAPPED | 400 | A0+000 | A0+226 | 226 | 2000D |
| HDPE | BELL AND SPIGOT | 300 | A0+226 | A0+232 | 6 | 320 kPa STIFFNESS, c/w 45 DEG. ELBOW |
| CONCRETE | GEO-TEXTILE WRAPPED | 300 | A0+232 | A0+548 | 316 | 2000D |



STRUCTURE NOTES:

- ANY VARIATION FROM THE ELEVATIONS AND DIMENSIONS OF THESE STRUCTURES MUST BE APPROVED BY THE ENGINEER.
- STRUCTURES NOT MANUFACTURED AS SPECIFIED MAY BE REJECTED FOR USE AND SHALL BE THE SOLE RESPONSIBILITY OF THE CONTRACTOR.
- ALL ABOVE GRADE STRUCTURES SHALL HAVE A MINIMUM SUMP OF 300mm UNLESS OTHERWISE NOTED; BURIED STRUCTURES ARE NOT REQUIRED TO BE BENCHED.
- ALL ABOVE GRADE STRUCTURES SHALL HAVE BIRDCAFE GRATES TO SUIT AND RIP-RAP C/W GEOTEXTILE UNDERLAY FOR ONE METRE AROUND THE STRUCTURE, UNLESS INDICATED OTHERWISE IN THE SPECIAL PROVISIONS.
- ALL ABOVE GRADE STRUCTURES ARE TO HAVE POSTS AND MARKERS.
- ALL GRATES AND COVERS SHALL BE FASTENED TO THE STRUCTURE IN AN APPROVED MANNER.
- ALL STRUCTURES MUST HAVE PLUGGED INLETS IN THE SIDES NOT UTILIZED BY THE MUNICIPAL DRAIN TO ACCOMMODATE A 250mm DIA. HDPE PIPE SET 0.10m ABOVE THE OUTLET INVERT, UNLESS OTHERWISE NOTED. ALL PLUGGED INLETS MUST HAVE THEIR LOCATION IDENTIFIED ON THE INSIDE OF THE STRUCTURE.
- ALL CONNECTIONS TO STRUCTURES MUST BE MADE USING RIGID PIPE WHICH MUST SPAN FROM THE STRUCTURE TO UNDISTURBED NATIVE SOIL.
- WHERE 900mm X 1200mm STRUCTURES ARE SPECIFIED, THE MUNICIPAL DRAIN INLETS AND OUTLETS SHALL BE INSTALLED IN THE 1200mm WALLS AND THE PLUGGED INLETS SHALL BE IN THE 900mm WALLS, UNLESS NOTED OTHERWISE.
- ALL STRUCTURES SHALL BE CAST WITH A MINIMUM OF A 150mm HIGH RISER SECTION TO ALLOW FOR ADJUSTMENT OF THE TOP ELEVATION TO SUIT FIELD CONDITIONS; ACCORDINGLY NO MONOLITHIC STRUCTURES WILL BE PERMITTED.
- A CATCHBASIN (CB, OR DICB) IS INTENDED TO TAKE ON SURFACE WATER, AN OBSERVATION BOX (OB) IS INTENDED FOR TILE CONNECTIONS AND TO SERVE AS AN OBSERVATION/INSPECTION POINT.
- ALL 600mm X 600mm DICB TO HAVE A 2:1 SLOPE AND ALL 900mm X 1200mm DICB TO HAVE A 3:1 SLOPE WITH CORRESPONDING BIRDCAFE GRATES.

PIPE NOTES:

- ALL PIPE AND PIPE WORKS SHALL CONFORM TO THE GENERAL SPECIFICATIONS.
- ALL CONCRETE DRAINAGE TILE (CDT) SHALL BE NON-REINFORCED 2000D RATED, OR APPROVED EQUAL.
- ALL HIGH DENSITY POLYETHYLENE (HDPE) PIPE SHALL BE DUAL-WALL, 320 KPA PIPE STIFFNESS, OR APPROVED EQUAL.
- ALL SMOOTH WALLED WELDED STEEL PIPE (SWWSP) USED IN JACK AND BORING INSTALLATIONS SHALL BE MEASURED ON OUTSIDE DIAMETER (O.D.) UNLESS OTHERWISE NOTED.
- ALL CORRUGATED STEEL PIPE (CSP) SHALL BE GALVANIZED AND CONFORM TO THE GENERAL SPECIFICATIONS.
- ALL OUTLET PIPES SHALL BE CORRUGATED STEEL PIPE (CSP) OR HIGH DENSITY POLYETHYLENE (HDPE).
- CSP OUTLET PIPES SHALL FIT AROUND THE LAST SECTION OF TILE WITH A MINIMUM OVERLAP LENGTH OF 450mm, COMPLETE WITH A GEO-TEXTILE WRAPPED CONNECTION.
- HDPE OUTLET PIPES SHALL BE THE SAME DIAMETER AS THE LAST SECTION OF TILE, COMPLETE WITH A BELL CONNECTION TO FIT AROUND THE PIPE. THIS CONNECTION SHALL BE GEO-TEXTILE WRAPPED.
- ALL OUTLET PIPES SHALL HAVE A RODENT GRATE AND HAVE RIP-RAP PROTECTION.

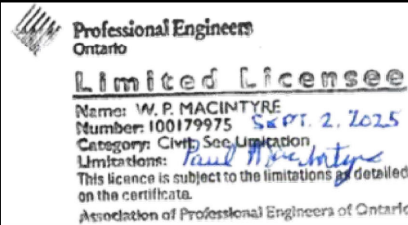
BENCHMARKS

BENCHMARK #1 ELEVATION = 267.19m
NAIL IN NORTH FACE OF HYDROPOLE ON EAST SIDE
OF HIGHWAY 59, APPROX. 65m SOUTH OF CB

BENCHMARK #2 ELEVATION = 266.97m
NAIL IN EAST FACE OF CORNER POST OF FENCE LINE,
APPROX. 140m WEST OF PALMER DRAIN

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FOR TENDER



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Client
TOWNSHIP OF NORWICH
285767 AIRPORT ROAD
NORWICH, ONTARIO
N0J1P0



Drawing Title
HAIGHT MUNICIPAL DRAIN

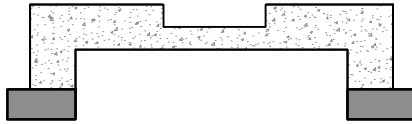
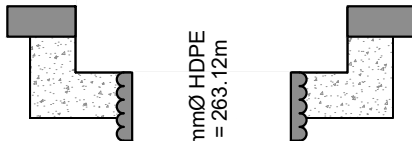
STILLING BASIN DETAILS

| | | | | |
|-----------------------|----------------|-------------------------------|----------------|----------------------------------|
| Designed CGT | Checked WPM | Drawn EM | Checked WPM | Drawing No. 5 of 5 |
| Date 2025/09/02 | | Project No. 300057028.0000 | | |
| Scale NOT TO SCALE | | | | |

STATION 0+146

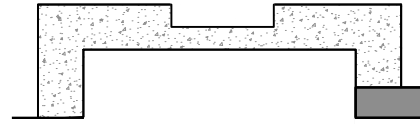
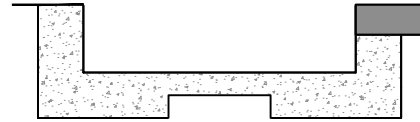
CB

900mmX1200mm

TOP/LOW WALL ELEV = 264.67m
300mm SUMP250mmØ KNOCKOUT
INV=263.12m750mmØ CDT
INV = 263.02m750mmØ CDT
INV = 263.02m525mmØ HDPE
INV = 263.12m**STATION 0+374**

DICB

900mmX1200mm

TOP/LOW WALL ELEV = 265.23m
300mm SUMP250mmØ KNOCKOUT
INV=263.58m750mmØ O.D.
SWWSP
INV=263.48m750mmØ CDT
INV = 263.48m250mmØ KNOCKOUT
INV=263.58m**STATION 0+399**

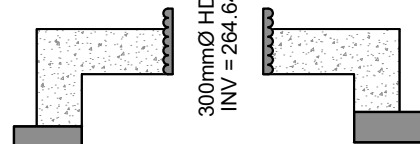
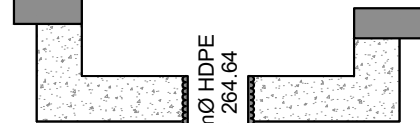
DICB

900mmX1200mm

TOP/LOW WALL ELEV = 264.97m
300mm SUMP450mmØ HDPE
INV = 263.64m750mmØ CDT
INV = 263.54m750mmØ O.D.
SWWSP
INV=263.54m250mmØ KNOCKOUT
INV=263.64m**STATION 0+802**

BJB

900mmX1200mm

TOP/LOW WALL ELEV = N/A
0.00mm SUMP300mmØ HDPE
INV = 264.64m675mmØ CDT
INV = 264.54m750mmØ CDT
INV = 264.54m200mmØ HDPE
INV = 264.64**NOTES:**

1. CATCH BASIN DETAILS ARE FOR INFORMATION PURPOSES ONLY. THE CONTRACTOR HAS THE RESPONSIBILITY OF ENSURING THAT CONSTRUCTION IS CARRIED OUT ACCORDING TO THE CONTRACT SPECIFICATIONS AND DRAWINGS.
2. ALL KNOCKOUT ARE TO ACCOMMODATE DUAL-WALL HDPE (320kPa) PIPE OF THE SPECIFIED INNER DIAMETER.
3. THE CONCRETE PIPE SHOWN IS BASED ON 2000D PIPE DIMENSIONS.
4. ALL HDPE PIPE SHOWN IS BASED ON DUAL-WALL HDPE (320kPa) PIPE DIMENSIONS.

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web www.rjburnside.com

Client

TOWNSHIP OF NORWICH285767 AIRPORT ROAD
NORWICH, ONTARIO
N0J1P0

Drawing Title

HAIGHT MUNICIPAL DRAIN**CATCH BASIN DETAILS**

| Drawn | Checked | Date | Drawing No. |
|-------|---------|----------------|---------------|
| AH | CGT | 2025/09/02 | 1 of 3 |
| Scale | | Project No. | |
| 1:25 | | 300057028.0000 | |

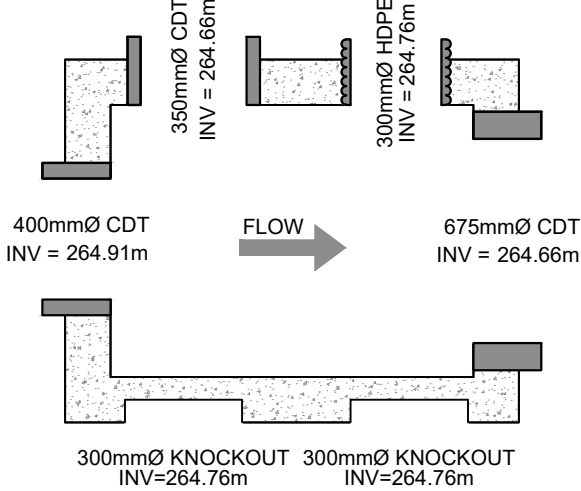
STATION 0+851

CB

1200mmX900mm

TOP/LOW WALL ELEV = 266.31m

300mm SUMP



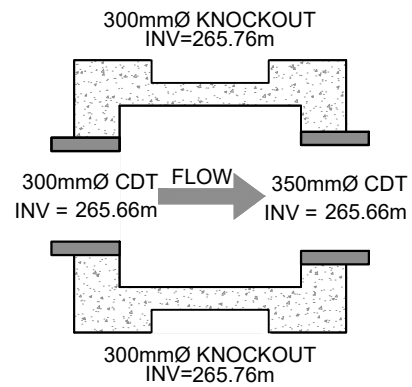
STATION 1+186

CB

600mmX600mm

TOP/LOW WALL ELEV = 268.40m

300mm SUMP



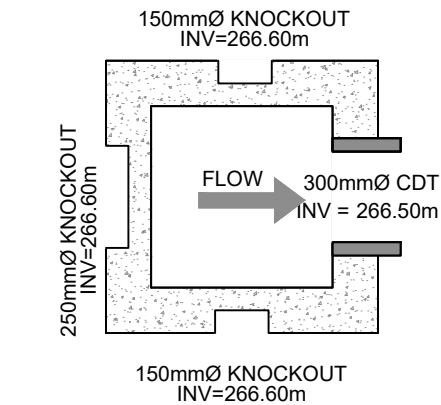
STATION 1+465

CB

600mmX600mm

TOP/LOW WALL ELEV = 268.55m

300mm SUMP



NOTES:

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- 4.
- 5.



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TOWNSHIP OF NORWICH

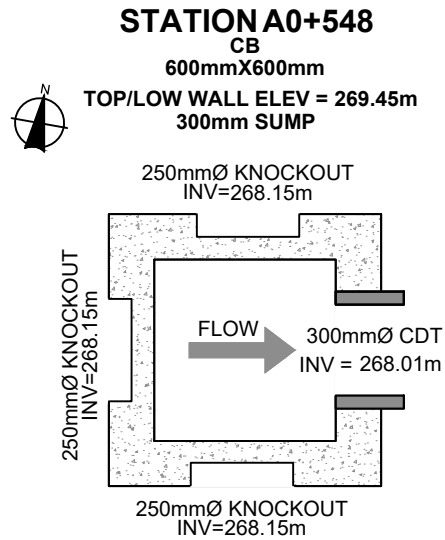
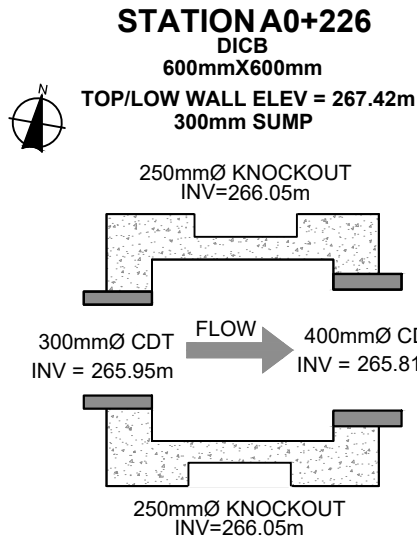
285767 AIRPORT ROAD
NORWICH, ONTARIO
N0J1P0

Drawing Title

HAIGHT MUNICIPAL DRAIN

CATCH BASIN DETAILS

| Drawn | Checked | Date | Drawing No. |
|-------|---------|----------------|---------------|
| AH | CGT | 2025/09/02 | 2 of 3 |
| Scale | | Project No. | |
| 1:25 | | 300057028.0000 | |



NOTES:

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2. ALL KNOCKOUT ARE TO ACCOMMODATE DUAL-WALL HDPE (320kPa) PIPE OF THE SPECIFIED INNER DIAMETER.
3. THE CONCRETE PIPE SHOWN IS BASED ON 2000D PIPE DIMENSIONS.
4. ALL HDPE PIPE SHOWN IS BASED ON DUAL-WALL HDPE (320kPa) PIPE DIMENSIONS.



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285767 AIRPORT ROAD
NORWICH, ONTARIO
N0J1P0

Drawing Title

HAIGHT MUNICIPAL DRAIN

CATCH BASIN DETAILS

| Drawn | Checked | Date | Drawing No. |
|-------|---------|----------------|---------------|
| AH | CGT | 2025/09/02 | 3 of 3 |
| Scale | | Project No. | |
| 1:25 | | 300057028.0000 | |



BURNSIDE

Document F
Special Provisions

Appendix F – Special Provisions

These **Special Provisions** are specific directions for this project and detail requirements not encompassed by the **Standard Drain Specifications**.

Special Provisions shall take precedence over the **Standard Drain Specifications** where a conflict between them may exist.

1.0 Standard Drain Specifications

All work for this project shall also be governed by **Appendix E – Standard Drain Specifications**. The Contractor is fully responsible for a reasonable and prudent review of these Standards to have a complete and clear understanding of the scope and character of the work.

2.0 Description and Location

The proposed drain is located on Lots 7, 8, and 9 Concessions 2 and 3, Township of Norwich, County of Oxford.

The Haight Municipal Drain Improvement includes 283 m of channel works on the Palmer Municipal Drain and the installation of approximately 1,465 m of tile on the Main Drain and 548 m of tile on Branch A. There is one road crossing on the Main Drain through Highway 59. The location of the work is shown in the enclosed plan.

3.0 Instruction and Process

3.1 Pre-Construction Meeting

The Contractor **must** arrange an on-site pre-construction meeting with the Engineer, Drainage Superintendent and affected landowners before any equipment or materials are moved onto the Site and before any work is commenced on this project.

Furthermore, the Contractor shall also provide notification of the commencement of in-water work to the DFO and Long Point Region Conservation Authority (LPRCA) or any other applicable agency(s) at least ten working days prior to the initiation of the work.

3.2 Working Space

The area being provided to the Contractor to undertake the work is described herein and the maximum widths are specified on the tables entitled

Table 1: Working Space - Main Drain and Table 2: Working Space - Branch A below.

Table 1: Working Space - Main Drain

| Station | Maximum Width (m) | Comments ¹ |
|---|--------------------------|--|
| Sta. -0+293 to Sta. 0+000 | 10 m working space | Access to this portion of the Palmer Municipal Drain will be from Highway 59 and subsequently following the proposed drain alignment on Lot 7, Concession 2. The channel works shall be from the west bank on the Morning Dew Farms LTD (Roll No. 030-020-087) property. |
| Sta. 0+000 to Sta. 0+374 | 20 m working space | Access to this portion of the drain will be directly from Highway 59, along the drain route on Lot 7, Concession 2. |
| Highway 59 Road Crossing Sta. 0+374 to Sta. 0+399 | N/A | Access to this portion of the drain will be directly from Highway 59 to: <ul style="list-style-type: none"> • AR#1 on the Storey property (Roll No. 030-020-089). And subsequently following the proposed drain alignment as shown on the plan. |
| Sta. 0+399 to Sta. 1+186 | 20 m working space | Access to this portion of the drain will be directly from Highway 59 to: <ul style="list-style-type: none"> • AR#1 on the Storey property (Roll No. 030-020-089). • AR#2 on the Storey property (Roll No. 030-020-089). And subsequently following the proposed drain alignment as shown on the plan. |
| Sta. 1+186 to Sta. 1+465 | 20 m working space | Access to this portion of the drain will be directly from Evergreen Street to: <ul style="list-style-type: none"> • AR#3 on the Evergreen Holstein Farms Ltd property (Roll No. 030-020-075). And subsequently following the proposed drain alignment as shown on the plan. |

¹ For working space notes, please see Section 3.2.1 below.

3.2.1 Working Space Notes

1. The Contractor shall contain their construction operations to as narrow a width as possible, to prevent damage to lands, crops, bush, etcetera and shall not exceed the widths indicated.
2. The Contractor shall be entirely responsible for any damage to lands, crops, etcetera, beyond the widths and locations of both the access routes and the working spaces specified, caused by the Contractor, their Subcontractors or their employees while undertaking the work.
3. The Engineer's approval **must be obtained before** exceeding the maximum width indicated.
4. Access to the working space shall be public roads or as specified. All routes must be approved by the Engineer and Drainage Superintendent prior to construction.

Table 2: Working Space - Branch A

| Station | Maximum Width (m) | Comments ¹ |
|----------------------------|--------------------|---|
| Sta. A0+000 to Sta. A0+548 | 20 m working space | <p>Access to this portion of the drain will be directly from Highway 59 to:</p> <ul style="list-style-type: none">• AR#1 on the Storey property (Roll No. 030-020-089). <p>Or Evergreen Street to:</p> <ul style="list-style-type: none">• AR#3 on the Evergreen Holstein Farms Ltd property (Roll No. 030-020-075). <p>And subsequently following the proposed drain alignment as shown on the plan.</p> |

¹ For working space notes, please see Section 3.2.1 above.

3.3 Access Routes

The access routes for construction shall be from specified locations on Highway 59 and evergreen Street to the Drain, as specified in the tables entitled Table 1: Working Space - Main Drain and Table 2: Working Space - Branch A and on the enclosed plan. The Contractor shall confirm these access routes with the Engineer, Drainage Superintendent and affected landowners prior to commencing any work.

The width of the access route on each property shall be a maximum of 6 m. Any increase in this width shall be at the discretion of the Engineer.

3.4 Alternative Installation Method

An **alternative installation method may be proposed and bid accordingly by the Contractor** at the time of submission. Closed sections of the drain specified to be installed by wheel trencher may be installed using an excavator and a minimum 150 mm of 19 mm dia. clear crushed stone (or approved equal). **No extra payment shall apply per item when the Contractor specifies this method at the time of bidding.**

3.5 Private Systematic Drainage Systems

The Contractor is advised that at the time of submission of this report random drainage systems were known by the Engineer in the installation area of the proposed drain.

The location of existing private drainage systems shall be discussed at the pre-construction meeting and existing systems affected by the Drain shall be located by the Contractor and reviewed with the Engineer and affected landowners prior to construction.

3.6 Utilities Investigation

A utilities investigation was undertaken during the design stage to determine possible elevation conflicts prior to the time of construction. The following utilities were located in the area of the proposed drain:

- An underground copper bell utility line located on the east side of Highway 59.
- Three Hydro One Transmission Line towers in the vicinity of the drain. All works conducted near the Hydro One towers shall be done in accordance with the terms outlined by Hydro One.

The drain has been designed with input from the governing utilities to ensure adequate vertical and horizontal separation between the drain and the utilities of concern.

All public and private utilities shall be located by the Contractor prior to the construction of the proposed drain.

3.7 Staging of Construction

The Contractor shall stage the construction to ensure that the site is left each day with appropriate controls to avoid erosion. Any excavated spoil areas shall be protected with silt fence or other measures to avoid erosion during construction, as directed by the Contract Administrator. All channel works shall be completed during periods of low or no flow. Additional erosion measures shall be paid for as extra items on an as directed basis.

3.8 Construction Document Errors

Any issues during construction with respect to errors or omissions with the design drawings or documents, the constructability of the system, etc. must be brought to the attention of the Contract Administrator immediately. It is expected that a clear communication channel will exist between the Contractor and the Contract Administrator and that any discrepancies relating to construction of the work will be remedied immediately. Work resulting from failure to seek clarification with the Contract Administrator by the Contractor will be the responsibility of the Contractor to remedy at no extra charge to the project and must be completed to the satisfaction of the Engineer prior to demobilization.

3.9 Final Inspection

After substantial completion of the work and prior to demobilization and removal of equipment and materials from the Site, the Contractor **must** arrange an on-site **final** inspection of the work with the Engineer. This is to ensure all aspects of the work have been satisfactorily completed and/or that arrangements have been made to expedite the completion of any outstanding minor items or deficiencies. Notification to the Engineer of this final inspection shall be provided at least two days prior.

3.10 Deficiencies

Deficient items such as catchbasin markers, grate tabs, rodent grates, additional rip-rap, etc., shall be remedied by the Contractor during the warranty period and paid at the Contract price. If the Contractor fails to complete the work within a reasonable timeframe in the opinion of the Engineer and/or the Municipality, the work shall be completed by a Contractor of the Engineer's choosing and the cost of the work deducted from the Contract holdback.

3.11 Liquidated Damages

In addition to GC 8.02.09.01 and the supplemental general specifications any breach of the Contract terms by the Contractor may be subject to **daily liquidated damages of \$500** at the discretion of the Contract Administrator. Pertinent examples may include but are not limited to:

- Work outside the timing windows stated in the Contract.
- Failure to install applicable erosion and sediment controls prior to completing other construction activities.
- Failure to meet Substantial Performance of the Contract by the date specified in the Contract Documents.

3.12 Long Point Region Conservation Authority (LPRCA)

Attention is drawn to the LPRCA permit. All work is to be in accordance with the terms of this permit and the mitigation practices described in the Engineer's Report.

3.13 Ministry of Environment, Conservation, and Parks (MECP)

The Contractor will be responsible for ensuring no extirpated, endangered, threatened, or special concern species or their habitats are adversely affected during construction.

3.14 Fisheries and Oceans Canada (DFO)

Attention is drawn to the DFO letter of advice in Appendix D. All work is to be done in accordance with the terms in the letter of advice. Relevant mitigation measures are highlighted below:

- Works shall be done in accordance with the DFO best management practices and the mitigation practices described in the Engineer's Report.
- All disturbed banks are to be re-vegetated.
- Proper erosion and sediment control measures must be used.
- All in-water works are to be conducted during periods of low or no flow.

DFO has provided requirements for the in-water work on the proposed drain, specifying that it be completed from July 15 to March 15 due to fish spawning restrictions as a Fisheries Class C channel.

4.0 Description of Work

This section includes specific instructions pertaining to the drain construction and shall be in addition to any specifications noted in the Standard Drain Specifications. The numbering of each item references the corresponding item in the schedule of unit prices. Each Item shall be bid as a lump sum price unless otherwise noted. **For the lump sum price bid, unless otherwise noted, the Contractor shall provide the following items:**

Section A – Haight Municipal Drain

SP 0 Mobilization

This item covers the Contractors' costs associated with the transportation and/or accommodation (meals and lodging) of labour, equipment, offices, conveniences, temporary facilities, construction plant and other items not required to form part of the permanent works and not covered by other items in the Schedule of Unit Prices. This line item shall only apply to the first/primary mobilization/demobilization required to fulfill the Contract. Additional mobilization costs will not be paid if the Contractor chooses to leave the site on their own accord following the initial mobilization. However, if at the discretion of the Contract Administrator a situation warrants the Contractor to demobilize from Site to complete the remainder of the work at a later date, the costs associated with this may be negotiated with the Contract Administrator and paid as an extra item.

Payment at the lump sum price set out in the schedule of unit prices for mobilization and demobilization will be made as follows:

- 50% payable on first Payment Certificate.
- 50% payable on Substantial Performance Payment Certificate.

SP 1 Temporary Rock Flow Check Dam

The Contractor shall install a temporary rock flow check dam prior to commencement of any work on the remainder of the proposed drain; Refer to OPSD 219.211.

After the completion of the work and when instructed by the Contract Administrator, the rock flow check dam shall be removed. The excess stone can be incorporated into the surrounding channel features.

SP 2 Temporary Sediment Trap

The Contractor shall install a temporary sediment trap prior to commencement of any work on the remainder of the proposed drain; Refer to OPSD 219.220.

When necessary, during and at the completion of the project and/or when instructed by the Contract Administrator, the Contractor shall remove and spread any accumulated sediment within the working right-of-way.

SP 3 Channel Deepening

All required work for channel deepening shall take place within the specified working space where a 10 m ROW has been provided. Spreading and levelling of spoil shall be completed within the working ROW to a maximum depth of 150 mm. Spoil shall not be spread within 2 m from the top of the ditch bank. The topsoil from the spoil placement area shall be stripped and spread back over the spoil within the working ROW.

The channel side slopes shall be excavated at 2H:1V. Channel deepening shall commence at the toe of the slope of the far channel bank where the bank slope is carried to the channel bottom elevation. Excavation will be completed in the channel bottom and on the near channel bank, where required.

If during construction there is excavated subsoil material deemed unsuitable by the Contract Administrator for spreading in the ROW, it shall be loaded and trucked off-site by the Contractor for disposal and paid for at an additional cost.

SP 4 Stilling Basin

A permanent stilling basin shall be installed immediately downstream of the outlet pipe at Sta. 0+000 as per the accompanying details to the satisfaction of the Contract Administrator.

The basin shall be lined with approximately 20 m² of round river stone (450 mm thickness of 150 to 300 mm dia.) in the base of the stilling basin and spillway from Sta. 0+000 to Sta. -0+010.

Additionally, approximately rip-rap (450 mm thickness of 150 to 300 mm (OPSS R50) diameter quarry stone with geotextile underlay) shall be installed on the side banks for the above-mentioned stations and on the same bank as the outlet pipes as erosion protection.

SP 5 High-Density Polyethylene Pipe

Prior to the installation of the new tile, the Contractor shall strip the topsoil from the area of the proposed tile trench for the entire width of the installation machine. The topsoil shall be stockpiled separately from native subsoil and subsequently replaced over the backfilled tile trench. This shall be included as part of the work under the appropriate item. An extra payment will not be made for the stripping, stockpiling, and replacing of topsoil.

All HDPE pipes shall be dual-wall (320 kPa). This tile shall be installed as per the Standard Drain Specifications and accompanying details.

All HDPE pipes specified with elbows shall be dual-wall (320kPa) with a plain end. The pipe shall be cut in half and the specified HDPE elbow installed at its midpoint. The joint between the HDPE pipe and concrete tile shall be double wrapped with a minimum of 0.6 m width of geotextile (Terrafix 200R or equivalent).

The proposed outlet pipe shall be 750 mm solid HDPE dual-wall (320 kPa) bell and spigot gasketed pipe. The downstream end of the concrete drainage tile at Sta. 0+006 shall be placed inside the bell end of the proposed outlet pipe. The joint between the two pipes shall be wrapped in a minimum 0.6 m width of geotextile (Terrafix 200R or equivalent). A rodent grate shall be installed on the outlet pipe.

The existing 600 mm corrugated steel outlet pipe shall be removed and replaced with a new 600 mm solid HDPE dual-wall (320 kPa) bell and spigot gasketed pipe. A rodent grate shall be installed on the outlet pipe.

SP 6 Concrete Drainage Tile

All concrete drainage tile shall be Heavy Duty 2000D. The tile shall be installed as per the Standard Drain Specifications and accompanying details.

The proposed Main Drain shall be installed parallel to the existing 1976 Municipal Drain. Prior to installation, the location of the existing drain must be identified, and a designated working side shall be determined and confirmed in consultation with the Contract Administrator. The proposed tile shall be installed a minimum of **4 m** offset the existing drain.

Branch A shall generally follow the existing 1903 Municipal Drain alignment. The excavator shall follow the tile alignment and destroy the existing tile during the installation of the new tile.

Prior to the installation of the new tile, the Contractor shall strip the topsoil from the area of the proposed tile trench for the entire width of the wheel trencher. The topsoil shall be stockpiled separately from native subsoil and subsequently replaced. This shall be included as part of the work under the appropriate item. An extra payment will not be made for the stripping, stockpiling, and replacing of topsoil. Under no circumstances will frozen topsoil be levelled or placed over top of the drain. If the Contractor elects to install the drain during winter months, the contractor shall return to the site and level the topsoil when conditions are appropriate. No additional mobilization charges shall be made for returning to the site to conduct the levelling of topsoil.

SP 7 Catchbasin/Junction Box Installation

The proposed catchbasins shall be installed as per the Standard Drain Specifications and where applicable orientated as depicted on the accompanying details. The Contractor shall ensure that positive drainage to the proposed catchbasins and complete minor grading works where required to the satisfaction of the Contract Administrator.

The Contractor shall supply and place a minimum of 1 m width of rip-rap and geotextile on all sides of the catchbasins. Junction boxes shall extend a minimum 300 mm from the top of the pipe to the base of the concrete lid and shall have a minimum of 0.6 m of cover.

The Contractor shall utilize excess on-site material from adjacent tile and structure installation to construct directional berms where identified on the accompanying plans. Directional berms shall at a minimum match the height of the DICB high wall and feather into the existing topography.

The Contractor shall include the cost to complete all the necessary municipal tile connections c/w parging on the interior and exterior of the proposed catchbasin as part of the associated line item. Each catchbasin shall be installed with tabs, and an approved post and marker. Any existing catchbasins are to be removed and disposed of offsite by the contractor.

SP 8 Connections to the Proposed Municipal Drain

All connections to proposed structures shall include the cost to connect the tile to the proposed structure including the parging of both the interior and exterior of the structure to the satisfaction of the contract administrator. The Contractor shall ensure that connections are properly supported to prevent settlement. All connections shall be installed via an excavator on 19 mm clear stone bedding. The cost to supply the clear stone bedding shall be included in the price of the associated line item. Proposed connections are summarised below:

Sta. 0+146: Locate and connect existing Haight Municipal Drain (525 mm dia. CDT) to proposed CB with approximately 6 m of 525 mm dia. solid dual-wall (320 kPa) bell and spigot HDPE pipe.

Sta. 0+399: Locate and connect existing Haight Municipal Drain (450 mm dia. CDT) to proposed CB with approximately 6 m of 450 mm dia. solid dual-wall (320 kPa) bell and spigot HDPE pipe.

Sta. 0+802: Locate and connect existing Haight Municipal Drain (300 mm dia. CDT) to proposed buried junction box with approximately 6 m of 300 mm dia. solid dual-wall (320 kPa) bell and spigot HDPE pipe. Additionally, locate and connect existing Rettie Municipal Drain (175 mm dia. CDT) with approximately 6 m of 200 mm dia. solid dual-wall (320 kPa) bell and spigot HDPE pipe.

Sta. 0+851: Locate and connect existing Haight Municipal Drain (300 mm dia. CDT) to proposed CB with approximately 6 m of 300 mm dia. solid dual-wall (320 kPa) bell and spigot HDPE pipe.

Sta. 1+465: Locate and connect existing Haight Municipal Drain (150 mm dia. CDT) to proposed CB with approximately 6 m of 150 mm dia. solid dual-wall (320 kPa) bell and spigot HDPE pipe.

The downstream end of the existing CDT tiles shall be placed inside the bell end of the proposed HDPE pipes. The joint between the two pipes shall be wrapped in a minimum 0.6 m width of geotextile (Terrafix 200R or equivalent).

SP 9 Highway 59 Road Crossing

The Highway 59 road crossing shall be completed by the jack and bore method.

The location of the bore pit shall be discussed with the Contractor at the pre-construction meeting. Topsoil shall be stripped for the entire area of the bore pit, including a 1 m setback and stockpiled. The topsoil shall be redistributed over the backfilled pit following construction. Also, any existing tile connections in the bore pit shall be reconnected or connected to the new drain at the discretion of the Contract Administrator and shall be installed on a base of 19 mm dia. crushed clear stone on native ground along the entire length of the connection.

Traffic Control Plan. A traffic control plan shall be prepared and submitted to the County of Oxford and the Contract Administrator by the Contractor a minimum of ten days prior to the proposed start of construction of the bored crossing. The plan must be approved by the County and implemented by the Contractor prior to the beginning of the crossing construction.

Hand-Seeding: The Contractor shall be responsible for hand-seeding all disturbed areas within the working ROW once the trenches have been restored and topsoil has been appropriately placed.

Grouting: The existing 600 mm diameter drain crossing shall be completely filled with grout where it crosses Highway 59 to the satisfaction of the Contract Administrator. Any settlement or impact caused to Highway 59 as a result of deficiencies with the grouting of the existing crossing shall be the sole responsibility of the Contractor.

Note: Any settlement or impact caused to the road shall be the sole responsibility of the Contractor, per the Standard Drain Specifications (Appendix E). Any voids surrounding the pipe shall be filled with grout by the Contractor during construction and/or within a reasonable timeframe of notification by the Owner and shall be included with the cost of this line item. The Owner of the road ROW shall be contacted by the Contractor regarding any issues pertaining to the pipe installation on their property, prior to leaving the Site. Issues shall be remedied to the satisfaction of the Contract Administrator and the Owner.

**SP 10 Brushing a 20 m Working ROW on the 2223695 Ontario Inc Property
(Roll No. 030-020-072)**

A 20 m wide working ROW from Sta. A0+274 to Sta. A0+285 will need to be brushed prior to the installation of the tile in this section. All work should be done in accordance with the Standard Drain Specifications.

Clearing/Brushing: This item includes cutting, grinding, and/or chipping all standing trees, stumps, brush, bushes, and other vegetation to the existing ground level.

Trees measuring 150 mm dia. or more shall be felled, delimbed, cut into lengths no longer than 4 m, and stacked within the working space ROW to the satisfaction of the Contract Administrator.

Vegetation under 150 mm dia. shall be finished by the Contractor using one of the following three methods:

- Chipped in place by an excavator equipped with a hydraulic brushing attachment.
- Chipped using a woodchipper and piled or spread within the bush ROW.
- Piled and burned in accordance with the Municipality's burning regulations and By-Law(s).

The method preferred by the Contractor shall be discussed at the pre-construction meeting and shall be at the discretion of and completed to the satisfaction of the Owner and Contract Administrator.

Section B – Contingency Items

This section covers work that may be required for this project. These items shall apply only when approved by the Engineer.

If a scenario arises where the quantity of a contingency item is such that it exceeds the quantity specified in the schedule of unit prices by more than 150%, the Contract Administrator may issue a project change order and request revised unit pricing as required. Should this occur, the Contractor shall provide a unit pricing for such a contingency item within one working day.

SP 11 Reconnection and / or Connection of Existing Tiles

General: The unit price bid for these items shall include all labour, equipment, and material required to reconnect/connect existing private tile drains encountered during construction to the drain.

Missed connections and/or reconnections during construction shall be completed by the Contractor during the warranty period and paid at the contract price. If the Contractor fails to complete the connection and/or reconnection within a reasonable timeframe in the opinion of the Engineer and/or the Municipality, the work shall be completed by a Contractor of the Engineer's choosing and the cost of the work deducted from the contract holdback.

Reconnections: For the unit price bid the Contractor shall reconnect existing private tile drains encountered during construction across the trench to themselves, above the new tile. Included in this price shall be all labour, equipment and material required to support the tile connection above the new drain, consisting of compacted backfill or 19 mm dia. clear stone bedding, and connection of the tile using either of appropriately sized PDT or solid HDPE dual-wall (320 kPa) pipe (or approved equal) across the trench as per the detail in the accompanying drawings.

Connections: Typically, existing private tiles encountered during construction will be connected to themselves per detail in the accompanying drawings. In circumstances where, in the opinion of the Engineer, reconnection is not possible, private tiles may be connected to the new drain as noted and with the downstream side of the existing tile capped.

Installation shall include an appropriately sized PDT or solid HDPE dual-wall (320 kPa) pipe (or approved equal), connected to the new pipe using a core drilled hole and manufactured HDPE coupler fitting, with 19 mm dia. clear crushed stone backfill under the connection and a minimum of 150 mm over top of the connection per accompanying detail. Connections directly into the new drain without the use of a coupler will not be permitted.

Please refer to the Standard Drain Specifications for additional information.

SP 12 Special Installation for Poor Trenching Conditions

If poor construction conditions are encountered where, in the opinion of the Contractor, it is not feasible to use the wheel trencher, the Contractor shall immediately inform the Contract Administrator to obtain approval to switch to:

- Installation on a minimum depth of 150 mm of 19 mm dia. clear crushed stone (or approved equal) with 19 mm clear crushed stone backfill up to the springline of the pipe at a minimum.

For the **additional** unit price bid per lineal metre of trench, the Contractor shall install the pipe on 19 mm diameter clear crushed stone, or on geotextile wrapped 19 mm diameter clear crushed stone, as described in the schedule of unit prices per the detail in the accompanying drawings, with a hydraulic excavator instead of a wheel trencher. The Contractor shall note that the wrapping of tile joints still applies under original items. The cost to supply 19 mm dia. clear crushed stone and/or geotextile shall be included as part of the Contractors bid in this line item.

The Contractor shall keep a list of stations where these installation techniques were used, to be confirmed with the Contract Administrator on a daily basis.

This item shall be used only when the soil conditions encountered are such that a wheel trencher cannot, in the opinion of the Contract Administrator, be used effectively to install the pipe. The Contractor must receive approval from the Engineer prior to using either of these techniques. When soil conditions are again favourable in the opinion of the Contractor and the Contract Administrator, the wheel trencher must again be used for tile installation as soon as possible. Failure to use the wheel trencher for installation when soil conditions are favourable in the opinion of the Contract Administrator may result in non-payment of this contingency item.

All costs are to be included in the associated special installation technique contingency costs. No extra payment will be made for the removal of the wheel trencher, crew downtime, or other costs for this transition when the Contractor is required to change to a special installation technique.

SP 13 Supply and Install OPSS R50 Rip-Rap Erosion Protection

For the unit price bid per square metre, the Contractor shall supply and install a 450 mm thickness of 150 to 300 mm (OPSS R50) diameter quarry stone rip-rap with geotextile underlay. These unit prices shall be used for payment for any rip-rap installed in addition to those quantities already specified in other items and for credit for any quantities of rip-rap deleted from other items. Additionally, this will include areas of existing channel bank where erosion or bank slumping has occurred, as directed on-site by the Contract Administrator.

SP 14 Destroy Existing Haight Municipal Main Drain

If the Contract Administrator determines that the existing Haight Municipal Main Drain is to be destroyed rather than connected to the proposed system, the Contractor shall remove the existing tile along the agreed-upon length.

The topsoil shall be stripped in the proposed section of drain to be destroyed for the entire width of the excavation and piled separately from the subsoil material. The existing pipe shall then be uncovered with an excavator and destroyed for its entire length. The trench shall then be backfilled and stripped topsoil shall be spread over the trench.



Document G

Articles of Agreement

G. ARTICLES OF AGREEMENT

Haight Municipal Drain Improvement Contract No. 300057028.0000

THIS AGREEMENT made the _____ day of _____, 2025

BY AND BETWEEN:

.....

(herein and throughout the Contract Documents
called the "Contractor")

TOWNSHIP OF NORWICH

- and -

.....

(herein and throughout the Contract Documents
called the "Owner")

WITNESSETH

That the Owner and the Contractor in consideration of the fulfilment of their respective promises and obligations herein set forth covenant and agree with each other as follows:

ARTICLE I

- (a) This Agreement applies to the supply of all labour, material and equipment necessary to complete the Work as set out in this Contract.
- (b) This Agreement, together with the documents listed in clause 3.2 of Document A of the Bid Documents constitute the "Contract" and are to be read herewith and form part of the Contract as fully and completely to all intents and purposes as though all the stipulations thereof had been embodied herein.
- (c) The date from which this Contract is to be in force is the _____ day of _____, 20____.

(d) Interest

- (i) Subject to GC 8.02.04.09, Interest for Late Payment and GC 8.02.04.10, Interest for Negotiations and Claims, should either party fail to make payments as they become due under the terms of the Contract or in an award by arbitration or court, interest at a variable nominal rate per annum equal on each day to the Bank Rate then in effect plus one and one-half percent (1.5%) on the outstanding payment shall also become due and payable until payment.
 - (ii) Subject to GC 8.02.04.09, Interest for Late Payment and GC 8.02.04.10, Interest for Negotiations and Claims, interest shall apply at the rate and in the manner prescribed by the preceding section on the amount of any claim advanced and for which the Contractor is thereafter entitled to payment, either pursuant to GC 3.13, Dispute Resolution of the General Conditions, or otherwise, from the date the amount would have been due and payable under the Contract, had it not been in dispute, until the date it is paid.
- (e) The Contract supersedes all prior negotiations, representations, or agreements, either written or oral, relating in any manner to the Work, including the Bid Documents that are not expressly listed as forming part of the Contract Documents. The Contract may be amended only as provided in the Contract Documents. The Contract Documents shall enure to the benefit of and be binding upon the parties hereto, their respective successors and permitted assigns.
- (f) Notwithstanding any other provision(s) in the Contract Documents, in the event of a pandemic (e.g., COVID-19), as declared by the World Health Organization, the terms put forth in this subsection will take precedence and apply to this Contract. Should circumstances arise due to a pandemic which significantly frustrate the Contractor's ability to perform and/or complete the Work, to a degree which, in the sole judgement of the Contract Administrator (in consultation with the Owner and the Contractor), renders continuation of the Work substantially inefficient or impractical and/or completion of the Work impossible, then the Owner may suspend the Work or terminate the Contract, as appropriate under said circumstances.

In the event of a Work suspension, the duration of which would be initially determined and subsequently adjusted as necessary by the Contract Administrator (in consultation with the Owner and the Contractor), the Contractor will be reimbursed by the Owner for reasonable direct costs associated with the suspension (e.g., demobilization/remobilization costs, directly related administrative costs, other specific/direct costs as approved by the Contract Administrator). Consequential/indirect costs or losses

incurred by the Contractor and all subcontractors/suppliers (e.g., loss of profit, loss of opportunity, business impact costs, special or any other incidental/indirect/consequential cost or loss) are excluded from consideration for reimbursement by the Owner in their entirety. The Contract Administrator, in a fair and balanced manner, will be the sole arbiter with respect to determination of qualifying direct costs and excluded indirect/consequential costs. The Contract Time shall be extended for a period of time matching the duration of the suspension, at a minimum, or such longer period of time as deemed appropriate by the Contract Administrator to account for schedule inefficiencies associated with suspending and restarting the Work.

In the event of Contract termination, the Contractor will be reimbursed by the Owner for reasonable direct costs associated with the termination (e.g., payment for all Work performed up to the date of termination as verified by the Contract Administrator, directly related administrative costs, material restocking fees, full payment for materials which cannot be returned/restocked, demobilization, direct subcontract cancellation costs – excluding all associated consequential/indirect costs or losses incurred by subcontractors and suppliers, other specific/direct costs as approved by the Contract Administrator). Consequential/indirect costs or losses incurred by the Contractor and all subcontractors/suppliers (e.g., loss of profit, loss of opportunity, business impact costs, special or any other incidental/indirect/consequential cost or loss) are excluded from consideration for reimbursement by the Owner in their entirety. The Contract Administrator, in a fair and balanced manner, will be the sole arbiter with respect to determination of qualifying direct costs and excluded indirect/consequential costs.

ARTICLE II

THE CONTRACTOR UNDERTAKES AND AGREES:

- (a) To do all the work and furnish all the labour, equipment, materials, tools, plant, appliances and transportation necessary or proper for the performing and completing of the Work, as set forth in the Contract Documents, and in the manner and within the time specified in the Contract Documents and otherwise do and fulfill everything indicated by the Contract Documents.

The Contract Documents are intended to cover and provide for proper completed work in all respects, and everything necessary to carry out this intent which may reasonably be implied from the Contract Documents must be done by the Contractor, even if not explicitly referred to.

- (b) The Contractor shall guarantee the Work free from any defects in materials and workmanship under normal operating conditions throughout the Warranty Period as defined in the Contract.
- (c) The decision of the Contract Administrator is to be final and binding on the Contractor and the Owner as to the nature and cause of any defects and deficiencies in the Work and as to the remedy required for each and as to which party shall bear the cost of such remedy. Failure to comply with the directions of the Contract Administrator within forty-eight (48) hours after written notice may result in the Contract Administrator having the work performed by others and the cost thereof being deducted from the amount due to the Contractor.
- (d) To furnish the following:
 - i) Tender Deposit and Contract Security.
 - ii) Evidence of all Insurance required by the Contract Documents.
 - iii) Current Clearance Certificate from the Workplace Safety & Insurance Board (WSIB).
- (e) The Contractor hereby acknowledges and agrees that the cost of any item of work reasonably inferred to be necessary for proper completion of the Work, yet not specifically listed in the Schedule of Unit Prices is considered to be incorporated in the prices that are listed in Schedule of Unit Prices. The Contractor further acknowledges and agrees that the prices listed in Schedule of Unit Prices include, without limitation, duties, taxes, royalties, permits, customs, insurance, contract security, handling, transportation, overhead, profit and all other charges and expenses, except only for the Value Added Tax.

- (f) The Contractor also acknowledges and agrees that:
 - (i) The estimated quantities in the Schedule of Unit Prices are only approximate and are not a representation, warranty or guarantee of the number of units of each item that will be a part of the Work and the measured quantities of completed work or materials may vary from such estimated quantities. Such variation will not invalidate the Contract or the prices in Schedule of Unit Prices and the Owner shall have no liability or obligation to the Contractor in regard to such variation including, without limitation, incidental, consequential, direct, loss of profits, loss of opportunity, loss of good will, loss of revenue, special or other damages.
 - (ii) With the exception of the lump sum amounts for completed items set out in Schedule of Unit Prices, payment will only be made for the actual measured quantities of completed work performed or materials furnished as a part of the Work, as determined in accordance with the Contract Documents.
- (g) These amounts may be subject to adjustments as provided in the Contract Documents.
- (h) As such payments become due, the Contractor shall, in accordance with the terms of its agreements with any Subcontractors, pay all of its Subcontractors in full on account of work properly performed or Materials properly supplied, as applicable, less any holdback monies retained in compliance with the *Construction Act* (Ontario).

ARTICLE III

THE OWNER UNDERTAKES AND AGREES:

- (a) The Owner shall pay Contractor, for the performance of the Work, in accordance with the Contract Documents, the following:
 - (i) for the completed lump sum components of the Work, the lump sum amounts set out in Schedule of Unit Prices; and
 - (ii) for the completed unit price components of the Work, the aggregate amount of the actual number of units of measurement of each item multiplied by the appropriate unit price that is set out in the Schedule of Unit Prices.
- (b) Subject to, and in accordance with, the provisions of the Contract Documents, and the *Construction Act* (Ontario), the Owner shall:
 - (i) Make monthly progress payments to the Contractor on account of the Work performed when due in the amount verified by the Contract Administrator together with such Value Added Taxes as may be applicable to such amount verified by the Contract Administrator;
 - (ii) Upon Substantial Performance of the Work, pay to Contractor eighty percent (80%) of the statutory holdback (i.e., eight percent (8%) of the value of completed work) in respect of Work performed up to the date of Substantial Performance when due together with such Value Added Taxes as may be applicable to such payment.
 - (iii) The holdback amount for the warranty period will be \$1,000 or two percent (20%) of the statutory holdback, whichever is greater.
 - (iv) Upon the expiry of the Warranty Period, and rectification of all deficiencies and required completion of incomplete Work, pay to Contractor the remaining amount of the statutory holdback (i.e., two percent (2%) of the value of completed work) in respect of the Work performed up to the date of Substantial Performance, which the Owner has retained, when due together with such Value Added Taxes as may be applicable to such payment.

ARTICLE IV

All communications in writing between the parties or between them and the Contract Administrator shall be deemed to have been received by the addressee if sent to:

The Contractor at:

Or by email

- and to the Owner at:

Township of Norwich
ATTN: Dirk Kramer
Drainage Superintendent
285767 Airport Road
Norwich, ON N0J 1P0

- and to the Contract Administrator at:

R.J. Burnside & Associates Limited
ATTN: Chris Thompson
35 Perry Street
Woodstock, ON N4S 3C4

Or by email chris.thompson@rjburnside.com

ARTICLE V

This Agreement shall enure to the benefit of and be binding upon the parties hereto and their respective successors, executors, administrators and assigns. Note that the use of seals, while encouraged when available, is not mandatory.

IN WITNESS WHEREOF the Contractor and the Owner have respectively affixed their corporate seals and the hands of their proper officers on or about the day and year first above written.

Contractor

For the Contractor/Signature & Seal

Date Signed

Witness

TOWNSHIP OF NORWICH

Owner

For the Owner/Signature & Seal

Date Signed

Witness



BURNSIDE

Reference Documents

**[Note: Reference Documents do not form
part of the Bid or Contract Documents]**



Long Point Region Conservation Authority

PERMIT No. LPRCA-40/25 **PROHIBITED ACTIVITIES, EXEMPTIONS AND PERMITS** **(CONSERVATION AUTHORITIES ACT - ONTARIO REGULATION 41/24)**

4 Elm Street
Tillsonburg, ON
N4G 0C4
Phone (519) 842-4242
Fax (519) 842-7123
www.lprca.on.ca

Permission has been granted to:

| | | | |
|---|--|---|--------------------------------------|
| Applicant: | <u>Township of Norwich</u> | Telephone: | <u>(519) 667-2000</u> |
| Address: | <u>285767 Airport Road, Norwich, ON,</u> <u>N0J 1P0</u> | Email: | <u>dkramer@norwich.ca</u> |
| Agent: | <u>Chris Thompson</u> | Telephone: | <u>(226) 888-5649</u> |
| Address: | <u>35 Perry Street, Woodstock, ON, N4S</u> <u>3C4</u> | Email: | <u>chris.thompson@rjburnside.com</u> |
| Location/Address of works: <u>Near 365761 Evergreen Street</u> | | | |
| Lot: <u>7-9</u> | Concession: <u>2 & 3</u> | Municipality: <u>Oxford County</u> | |
| Description of Works: | <u>To deepen 283 metres of the Palmer Drain by varying depths no greater than 0.6 metres to support the</u> <u>improvement of neighbouring tile drainage being done under section 78 of the Drainage Act.</u> | | |
| Type of fill: | <u>N/A</u> | | |

This permit is valid on the above location only for the period of:

DATE: FEBRUARY 18, 2025 – FEBRUARY 18, 2027

This permit shall be subject to the following conditions:

The Applicant and owner, by acceptance of and in consideration of the issuance of this permit, agrees to the following conditions:

GENERAL CONDITIONS: (SEE REVERSE SIDE OF PERMIT)

SPECIFIC CONDITIONS:

1. Locations and dimensions of proposed works must be as indicated on the enclosed copy of the work permit application dated February 3, 2025 and the associated information.

GENERAL CONDITIONS:

1. This permit does not preclude any approvals required by any other laws or regulations.
2. Temporary sediment & erosion control measures shall be installed around any disturbed and/or exposed ground or excavated material stockpiles, remain in place until the site has been suitably stabilized, and must be monitored regularly to ensure effectiveness. Remedial/Emergency measures must be taken at any sign of failure. This step is considered necessary to prevent the undesirable migration of silt.
3. The Conservation Authority should be contacted within 48 hours prior to the commencement of construction.
4. Authorized representatives of the Long Point Region Conservation Authority may at any time enter onto the lands which are described herein in order to make any surveys, examinations or inspections which are required for the purpose of insuring that the work(s) authorized by this permit are being carried out according to the terms of this permit.
5. It is the responsibility of the permittee to ensure the development is located within the extent of the property boundaries owned by the proponent.
6. This permit is not assignable.
7. The project shall be carried out generally as per the plans submitted in support of the application as they may be amended by conditions of this permit.
8. This approval does not guarantee the soundness of the proposed work and it is the responsibility of the permittee to monitor and maintain the construction activity to ensure the integrity of the work.
9. The applicant agrees to maintain all existing drainage patterns.
10. Any activity or development other than that identified in this permit application must be reviewed by the LPRCA; at which time, staff will determine if additional approvals or an amended permit will be required.
11. Permits are valid for two years. No notice will be issued on expiration of the permit and it is the responsibility of the permittee to ensure a valid permit is in effect at the time work is occurring.



Fisheries and Oceans
Canada

Ontario and Prairie Region
Fish and Fish Habitat Protection Program
867 Lakeshore Rd.
Burlington, ON
L7S 1A1

Pêches et Océans
Canada

Région de l'Ontario et des Prairies
Programme de protection du poisson et de son habitat
867 chemin Lakeshore
Burlington, ON
L7S 1A1

December 5, 2024

Our file *Notre référence*
24-HCAA-02490

Dirk Kramer
Deputy Chief Building Official/Drainage Superintendent – Township of Norwich
285767 Airport Road
Norwich, ON
N0J 1P0

**Subject: Drain Improvement, Palmer Municipal Drain, Norwich (24-HCAA-02490) –
Implementation of Measures to Avoid and Mitigate the Potential for
Prohibited Effects to Fish and Fish Habitat**

Dear Dirk Kramer:

The Fish and Fish Habitat Protection Program (the Program) of Fisheries and Oceans Canada (DFO) received your proposal on October 10, 2024. We understand that you propose to:

- Deepen and widen Palmer Municipal Drain for approximately 293m, resulting in a footprint of approximately 295m² below the ordinary highwater mark;
- Place riprap along the banks of Palmer Municipal Drain; and,
- Work during low to no flow conditions.

Our review considered the following information:

- Request for Review form and associated documents submitted on October 10, 2024; and
- Email correspondence with Chris Thompson on December 4, 2024 confirming additional project details.

Your proposal has been reviewed to determine whether it is likely to result in:

- the death of fish by means other than fishing and the harmful alteration, disruption or destruction of fish habitat which are prohibited under subsections 34.4(1) and 35(1) of the *Fisheries Act*; and
- effects to listed aquatic species at risk, any part of their critical habitat or the residences of their individuals in a manner which is prohibited under sections 32, 33 and subsection 58(1) of the *Species at Risk Act*.

The aforementioned impacts are prohibited unless authorized under their respective legislation and regulations.

To avoid and mitigate the potential for prohibited effects to fish and fish habitat (as listed above), we recommend implementing the measures listed below:

- Plan in-water works, undertakings and activities to respect [timing windows](#), to protect fish, including their eggs, juveniles, spawning adults and/or the organisms upon which they feed and migrate
 - No in-water work between March 15 to July 15
- Limit impacts on riparian vegetation to those approved for the work, undertaking or activity
 - Limit access to banks or areas adjacent to waterbodies
 - Prune or top the vegetation instead of grubbing/uprooting
 - Limit grubbing on watercourse banks to the area required for the footprint of works, undertaking or activity
 - Construct access points and approaches perpendicular to the watercourse or waterbody
 - Remove vegetation or species selectively and in phases
 - Re-vegetate the disturbed area with native species suitable for the site
- Replace/restore any other disturbed habitat features and remediate any areas impacted by the work, undertaking or activity
- Restore stream geomorphology (i.e., restore the bed and banks, gradient and contour of the waterbody) to its initial state
- Maintain an appropriate depth and flow (i.e., base flow and seasonal flow of water) for the protection of fish and fish habitat
- Develop and implement an Sediment Control Plan to minimize sedimentation of the waterbody during all phases of the work, undertaking or activity
 - Schedule work to avoid wet, windy and rainy periods (and heed weather advisories)
 - Inspect and maintain regularly the erosion and sediment control measures and structures during all phases of the project
 - Use biodegradable erosion and sediment control materials whenever possible
 - Remove all exposed non-biodegradable sediment control materials once site has been stabilized
 - Operate machinery on land, or from barges or on ice
 - Use methods to prevent substrate compaction (e.g., swamp mats, pads)
 - Monitor the watercourse to observe signs of sedimentation during all phases of the work, undertaking or activity and take corrective action
 - Dispose and stabilize all dredged material above the high water mark of nearby waterbodies to prevent entry in the water
- Avoid changing flow or water level

- Avoid obstructing and interfering with the movement and migration of fish
- Develop and implement a response plan to avoid a spill of deleterious substances
 - Stop work, contain sediment-laden water and other deleterious substances and prevent their further migration into the watercourse
 - Keep an emergency spill kit on site during the work, undertaking or activity
 - Report any spills of sewage, oil, fuel or other deleterious material, whether near or directly into a water body
- Aquatic invasive species are introduced and spread through transporting sands and sediments and using contaminated construction equipment. To prevent the spread of aquatic invasive species during construction in aquatic environments:
 - Clean, drain and dry any equipment used in the water; and,
 - Never move organisms or water from one body of water to another.

Provided that you incorporate these measures into your plans, the Program is of the view that your proposal is not likely to result in the contravention of the above mentioned prohibitions and requirements.

Should your plans change or if you have omitted some information in your proposal, further review by the Program may be required. Consult our website ([Projects near water \(dfo-mpo.gc.ca\)](http://ProjectsNearWater.dfo-mpo.gc.ca)) or consult with a qualified environmental consultant to determine if further review may be necessary. It remains your responsibility to remain in compliance with the *Fisheries Act* and the *Species at Risk Act*.

It is also your *Duty to Notify* DFO if you have caused, or are about to cause, the death of fish by means other than fishing and/or the harmful alteration, disruption or destruction of fish habitat. Such notifications should be directed to DFO.OPHabitat.MPO@dfo-mpo.gc.ca or 1-855-852-8320.

Please notify this office at least 10 days before starting any in-water works. Send your notification to the assessor (contact information below) and the DFO 10 notification mailbox: DFO.OP.10DayNotification-Notification10Jours.OP.MPO@dfo-mpo.gc.ca. We recommend that a copy of this letter be kept on site while the work is in progress. It remains your responsibility to meet all other federal, territorial, provincial and municipal requirements that apply to your proposal.

If you have any questions with the content of this letter, please contact Jenica Pires at Jenica.Pires@dfo-mpo.gc.ca. Please refer to the file number referenced above when corresponding with the Program.

Yours sincerely,

A handwritten signature in black ink that reads "Jenica Pires". The signature is written in a cursive, flowing style.

Jenica Pires
Biologist, Triage and Planning
Fish and Fish Habitat Protection Program



BURNSIDE

Document B – Bid

**Bidders Shall Submit This
Document with Their Bid**