

**MAWSON-ERSKINE DRAIN BRANCH "B"**

THE MUNICIPALITY OF NORTH MIDDLESEX  
TENDER for CONTRACT MD 05-2024



CLOSING DATE: May 22, 2024 @ 11 a.m.

**BID FORM**  
**MAWSON-ERSKINE DRAIN BRANCH "B" DRAIN**

**MUNICIPALITY OF NORTH MIDDLESEX**

**OWNER:** The Municipality of North Middlesex  
**CONTRACT ADMINISTRATOR:** R. Dobbin Engineering Inc.  
**LOCATION:** Lot 16, Concession 17 in the Municipality of North Middlesex.

Bids will be received in sealed envelopes clearly marked "**Mawson-Erskine Drain Branch "B"'"**"  
at the Municipal office of:

**The Municipality of North Middlesex**  
**229 Parkhill Main Street**  
**Parkhill, ON**  
**NOM 2K0**

Your bid must be received at the above specified location no later than:

**Wednesday May 22, 2024**

**11:00 a.m. LOCAL TIME**

Bid inquiries shall be submitted to Josh Warner, R. Dobbin Engineering Inc.:

Josh Warner, P. Eng.  
R. Dobbin Engineering Inc.  
4218 Oil Heritage Road  
Petrolia, Ontario  
(519)-882-0032 ext. 204

**Tender enquiries shall be accepted until May 20, 2024**

**SCHEDULE OF TENDER PRICES**

**TENDER PRICE**

A. **Offer by:** \_\_\_\_\_  
**Name:** \_\_\_\_\_  
**Address:** \_\_\_\_\_  
\_\_\_\_\_  
**HST #:** \_\_\_\_\_  
**Date:** \_\_\_\_\_  
**To:** The Municipality of North Middlesex \_\_\_\_\_

We, the undersigned, having examined the site of the Work, having carefully investigated the conditions pertaining to the Work and having secured all the information necessary to enable us to submit a bid, and having inspected all the Contract Documents and Drawings, hereby agree to enter into a Contract and perform all the Work in accordance with the Contract Documents and Drawings to the satisfaction of the Contract Administrator for the total bid price **INCLUDING HST** of:

\_\_\_\_\_  
\_\_\_\_\_ ( \$ \_\_\_\_\_ )

**1. ADDENDA**

We agree that we have received addenda \_\_\_ to \_\_\_ inclusive, and the bid price includes the provisions set out in such addenda.

**Tender Table**

<u>Item Description</u>	<u>Quantity</u>	<u>Unit</u>	<u>Unit Cost (\$)</u>	<u>Total (\$)</u>
Pre-Construction Meeting	1	LS		
Brushing and Tree Removal	1	LS		
Locate and Work Around Utilities	1	LS		
Traffic Control	1	LS		
Rip Rap at Basins	40	tonne		
Co-Ordination of Hydro Pole Holds as Required	1	LS		
Remove Existing CB and Lead near Station 0+330	1	LS		
300mmø HDPE Pipe c/w Bedding and Backfill	352	m		
300mmø HDPE Bends	3	ea		
Catch Basins (600mm x 600mm)	8	ea		
Lower CB #1 and replace Lid	1	LS		
Connect Existing Tile to CB #8	1	LS		
200mmø PVC Leads c/w caps at ends	20	m		

<u>Item Description</u>	<u>Quantity</u>	<u>Unit</u>	<u>Unit Cost (\$)</u>	<u>Total (\$)</u>
Restoration	1	LS		
Contingency				11,200

Sub Total

HST (13%)

\_\_\_\_\_

Tender Total

OFFERED ON BEHALF  
OF THE CONTRACTOR

\_\_\_\_\_  
COMPANY NAME

\_\_\_\_\_  
SIGNATURE

CONTRACTOR'S SEAL  
(See Note Below)

\_\_\_\_\_  
SIGNATURE

\_\_\_\_\_  
WITNESS (See Note Below)

\_\_\_\_\_  
COMPANY STREET ADDRESS

\_\_\_\_\_  
CITY, PROVINCE, POSTAL CODE

\_\_\_\_\_  
DATE OF OFFER

**Note:** Contractor to have the necessary signatures to bind the company. If a Contractor's seal is used there is no need for the offer to be witnessed. If no Contractor's seal is used, then a witness signature is needed.

## CONDITIONS OF BID

1. The lowest or any bid will not necessarily be accepted by the Owner.
2. Contract Drawings 1, 2, 3 and the attached Specifications of Work for the Mawson-Erskine Drain Branch "B" are made part of this Contract Bid. The Contractor is to complete construction in accordance with the Drawings and the conditions indicated within this Bid Document.
3. TENDER DEPOSIT

The tender shall be accompanied by a tender deposit in the form of a certified cheque or a Bid Bond payable to the Owner (Municipality of North Middlesex) in the amount of 10% of the value of the tender price.

The Tenderers shall keep their tenders open for acceptance for 45 days after the closing date. Withdrawal during this period will result in forfeiture or enforcement of the tender deposit or Bid Bond.

Upon being notified that the tender has been accepted, the Contractor shall execute copies of the Agreement, supply bonds and insurance documents as specified, and start Work as specified.

Failure to execute the copies of the Agreement, or to supply bonds and insurance documents, within one week of the date of acceptance of the tender, will automatically mean the forfeiture or enforcement of the tender deposit. Tender deposits of unsuccessful Tenderers will be returned not later than two weeks following Tender close. The tender deposit of the successful Tenderer will be returned once the Contract Security is in place.

4. CONTRACT SECURITY

The bid deposit of the successful Tender shall be retained by the Municipality of North Middlesex until the contract is completed and a completion certificate is issued by the Engineer. The successful Contractor shall have the option of furnishing the Municipality of North Middlesex with a Performance Bond in the amount of one hundred percent (100%) of the total tender price (not including HST). The Performance Bond shall ensure completion of the work and maintenance of the work for a period of one year after the date of the completion certificate.

## 5. SCHEDULE

- a) The Contract is to be completed on or before – **November 30, 2024.**
- b) If the time limit above is not sufficient to permit completion by the Contractor working a normal number of hours, the Contractor shall make changes to permit the Work to be completed by the above date. Additional costs incurred shall be deemed to be included in the price bid for the Works.

## 6. EXAMINATION

- a) Upon receipt of Documents, verify that they are complete; notify the Contract Administrator should the Documents be incomplete.
- b) Each firm submitting a Tender shall carefully examine the Documents for discrepancies or omissions, and immediately notify the Consultant upon finding discrepancies or omissions, at least four (4) days prior to the date specified for closing.
- c) All firms submitting Tenders will acknowledge receipt of Addenda in the space provided in the Tender Form. If no Addenda are received, insert the word "None" in the space provided.

## 7. EXAMINATION OF SITE

- a) The Tenderers shall visit the site of the Work before submitting their Tender and shall by personal examination satisfy themselves as to the local conditions that may be encountered during construction of the Work. They shall make their own estimate of the facilities and difficulties that may be encountered and the nature of the subsurface materials and conditions.
- b) The Tenderer shall not claim at any time after submission of their Tender that there was any misunderstanding of the terms and conditions of the Contract relating to site conditions.

## 8. INSURANCE

- a) The successful Bidder will file with the Municipality within 10 calendar days of award of Contract, General Liability, Automobile and Property Damage Insurance coverage required by the Ontario Provincial Standard General Conditions.



## 9. WORKER'S SAFETY INSURANCE BOARD

- a) The successful Bidder will file with the Municipality within 10 calendar days of award of Contract, a current Certificate of good standing from the Worker's Safety Insurance Board (WSIB).

## 10. TIME CONSTRAINTS

- a) All Work shall be completed within the times outlined in The Municipality of North Middlesex noise by-law regulations.
- b) No weekend Work is permitted without prior approval by The Municipality of North Middlesex.

## 11. GUARANTEE PERIOD

- a) The Contractor shall guarantee the Material and Work shall for a period of twelve (12) months from the acceptance date remain in such condition as will meet the Contract Administrator's approval, and that they will make good in a permanent manner, satisfactory to the Contract Administrator, any imperfections due to materials or workmanship used in the construction and any damage caused by such imperfections. The decision of the Contract Administrator shall be final as to the nature and cause of such imperfections and the necessity for remedying them.

Should the Contractor fail to comply with the directions of the Contract Administrator, the Contract Administrator may, after giving the Contractor forty-eight (48) hours written notice, perform the necessary Work, and the cost may be deducted, or collected by the Owner as provided in the Contract.

- b) Notwithstanding the provision of the subsection (a) of this clause, the Contract Administrator may, in cases of danger or public safety, make such immediate arrangements for repairs as he/she sees fit, and the Contract Administrator will inform the Contractor of such action. The cost of such emergency Work shall be borne by the Contractor.
- c) If the Contract Administrator notifies the Contractor, in writing, of imperfections prior to the termination of the guarantee period, the Contractor shall make good the imperfections as required in subsection (a) above, notwithstanding that such Work of making good may commence after or extend beyond the end of the guarantee period.

- d) To cover the rectification costs during the guarantee period, the Municipality shall retain 3% of the value of Work done. This holdback will be retained for a period of twelve (12) months from the acceptance date.

## 12. PAYMENT

- a) Monthly draws for Work completed will be paid as needed. Payment will be subject to the 3% maintenance holdback and a 10% statutory holdback in accordance with the Construction Act. Payment at the unit priced bid for each item shall be full compensation for all labour, equipment, and materials required to do the Work.

## 13. EXTRA WORK

- a) Extra Work shall be undertaken as described in subsection GC3.10.02 of the General Conditions.
- b) If applicable tender items are provided in other parts of the Contract, extra Work shall be performed using the appropriate unit prices from these parts.
- c) Extra Work shall be paid under the Contingency Allowance.

## 14. QUANTITY OVERUNS AND UNDERUNS

- a) Compensation for quantity over runs and under runs shall be as described in GC 8.01.02 of the General Conditions.

## 15. DAMAGE

- a) Any damage to existing infrastructure and neighboring properties shall be repaired by the Contractor to the satisfaction of the Contract Administrator and be at the Contractors expense.

## 16. UTILITIES

- a) The Contractor shall secure locates at no extra cost to the Contract prior to any construction activities.

## 17. CONSTRUCTION LAYOUT

- a) The Contractor will be responsible for the layout of all lines and grades from the plans at no extra cost to the Contract. Control information will be provided to the successful Bidder by R. Dobbin Engineering Inc. in a digital format.
- b) All discrepancies are to be reported to the Contract Administrator prior to proceeding with the Work. The Contract Administrator will review the layout in the field prior to construction.

## 18. INCLEMENT WEATHER

- a) There will be no compensation for inclement weather other than consideration of an extension for lost time at the end of the Contract that will be at the discretion of the Contract Administrator.

## 19. SUBSTANTIAL PERFORMANCE

- a) The project will be considered substantially performed when all parts of the Contract are completed in accordance with the General Conditions of Contract – GC 1.05.

## 20. ONTARIO PROVINCIAL STANDARDS

- a) GENERAL CONDITIONS OF CONTRACT (OPSS.MUNI 100), November 2006 apply to this Contract.
- b) The Ontario Provincial Standard Specifications (OPSS) and Drawings (OPSD) apply to this contract. All required OPS Specifications can be downloaded at:

<http://www.ragsb.mto.gov.on.ca/techpubs/ops.nsf/OPSHomepage>

## **THE SUPPLEMENTAL SPECIFICATIONS APPLICABLE TO THIS PROJECT ARE AS FOLLOWS:**

### **Operational Constraints**

The following operational constraints form part of the Contract. No additional costs will be made for completing Work within the operational constraints. Payment for Work associated with the operational constraints shall be included in the applicable unit price item.

1. The Contractor is responsible to complete the Contract within the schedule specified.
2. Safe and reasonable access must be provided to local vehicle traffic and to pedestrian traffic. The Contractor shall ensure traffic regulatory signs and 911 signs are in place and secure at all times.
3. The Contractor is responsible for securing locates and providing coordination with all utilities and agencies. In addition, the Contractor shall protect from damage all buried and aerial utility lines during construction.
4. If required, the Contractor is responsible for obtaining a Permit to Take Water (PTTW) for dewatering purposes.
5. Geotechnical investigation has not been undertaken within the project limits.
6. All conditions from the Department of Fisheries and Oceans (DFO) and Ausable Bayfield Conservation's (ABCA) approvals shall be adhered to.

**Estimate of Cost**

<u>Item Description</u>	<u>Quantity</u>	<u>Unit</u>	<u>Unit Cost (\$)</u>	<u>Total (\$)</u>
Pre-Construction Meeting	1	LS	800	800
Brushing and Tree Removal	1	LS	800	800
Locate and Work Around Utilities	1	LS	1,500	1,500
Traffic Control	1	LS	1,500	1,500
Rip Rap at Basins	40	tonne	150	6,000
Co-Ordination of Hydro Pole Holds as Required	1	LS	1,200	1,200
Remove Existing CB and Lead near Station 0+330	1	LS	800	800
300mmø HDPE Pipe c/w Bedding and Backfill	352	m	150	52,800
300mmø HDPE Bends	3	ea	200	600
Catch Basins (600mm x 600mm)	8	ea	3,800	30,400
Lower CB #1 and replace Lid	1	LS	1,000	1,000
Connect Existing Tile to CB #8	1	LS	800	800
200mmø PVC Leads c/w caps at ends	20	m	120	2,400
Restoration	1	LS	10,000	10,000
Contingency				<u>11,200</u>
	Sub Total			\$121,800
	Allowances			\$1,060
	Engineering			\$22,200
	Daylighting and Surveying Utilities			\$4,500
	Estimate for Tendering, Contract Administration and Inspection			\$11,500
	ABCA Fee			\$500
	<b>Sub Total</b>			<u>\$161,560</u>
	Non-Recoverable HST (1.76%)			\$2,820
	<b>Total Estimate</b>			<u>\$164,380</u>

Mawson-Erskine Drain Branch “B”  
Municipality of North Middlesex  
March 20, 2024

## **SPECIFICATION OF WORK**

### **1. Location**

The proposed improvements to the Mawson-Erskine Drain Branch “B” are located in Lot 15, Concession 17 in The Municipality of North Middlesex.

### **2. Scope of Work**

The work included in this specification includes, but is not limited to, the following:

- Future road pipe replacements.
- Supply and installation of HDPE Pipe.
- Supply and installation of catch basins structures.

### **3. General**

Each tenderer must inspect the site prior to submitting their tender and satisfy themselves by personal examination as to the local conditions that may be encountered during this project. The Contractor shall make allowance in their tender for any difficulties which they may encounter. Quantities or any information supplied by the Engineer is not guaranteed and is for reference only.

All work and materials shall be to the satisfaction of the Drainage Superintendent who may vary these specifications as to minor details but in no way decrease the proposed capacity of the drain.

The Contractor shall be responsible for the notification of all utilities prior to the start of construction.

Measurement for Payment Clauses have not been included in these specifications and will be part of the Construction document. If the Construction document has not identified Measurement for Payment Clauses, the Contractor must notify the Municipality of North Middlesex and request clarification 2 days prior to pricing the project.

### **4. Plans and Specifications**

This Specification of Work shall take precedence over all plans and general conditions pertaining to the Contract. The Contractor shall provide all labour, equipment, and supervision necessary to complete the work as shown in the Plans and described in these

specifications. Any work not described in these specifications shall be completed according to the Ontario Provincial Standard Specifications and Standard Drawings.

## **5. Health and Safety**

The Contractor at all times shall be responsible for health and safety on the worksite including ensuring that all employees wear suitable personal protective equipment including safety boots and hard hats.

When applicable the Contractor shall be responsible for traffic control as per the Ontario Traffic Manual Book 7 – Temporary Conditions (latest revision).

The Contractor shall be responsible to ensure that all procedures are followed under the Occupational Health and Safety Act to ensure that work sites are safe and that accidents are prevented. In the event of a serious or recurring problem, a notice of non-compliance will be issued. The Contractor will be responsible for reacting immediately to any deficiency and correcting any potential health and safety risk. Continuous disregard for any requirement of the Occupational Health and Safety Act could be cause for the issuance of a stop work order or even termination of the Contract.

The Contractor shall also ensure that only competent workers are employed onsite and that appropriate training and certification is supplied to all employees.

## **6. Pre-Construction Meeting**

There is a requirement for a pre-construction meeting to be held prior to any construction taking place. The meeting shall be scheduled by the Contractor. The Landowners, Engineer, Developer's Engineer and the Municipality of North-Middlesex shall be notified of the pre-construction meeting at least 48 hours prior.

## **7. Benchmarks**

The benchmarks are based on geodetic elevations. Elevations are available at the locations shown on the Plan and Profile drawings. Where these elevations are on existing structures to be replaced, they shall be transferred by the Contractor prior to the removal.

The Contractor is required to complete a benchmark loop prior to construction to verify the benchmarks. If discrepancies exist the Contractor must notify the Drainage Superintendent and Engineer prior to completing any work.

## **8. Traffic Control**

Access and driveways to private properties shall not be obstructed longer than the minimum time necessary for the work and shall be reinstated as soon as possible all to the satisfaction of the Engineer. The contractor shall schedule any obstruction of existing

driveways with the owners at least two full working days in advance. Roads must be kept open to local traffic and all obstructions and diversions of traffic must be approved by the Engineer or Drainage Superintendent and Roads Superintendent at least two (2) full working days in advance.

- a) The Contractor shall supply, erect and maintain all detour signs and special signs necessary for detours to divert traffic from the area under construction as directed by the Road Superintendent or Engineer. All this work shall be at the Contractor's expense.
- b) The Contractor shall be responsible for supplying, erecting and maintaining all signs, supports, barricades, flashers, cones, etc. in the construction area and at the boundaries of the work as part of the above detours, all to the satisfaction of the Engineer or Drainage Superintendent. All this work shall be done by the Contractor at their own expense.
- c) The Contractor shall not be allowed to proceed with construction activities unless proper signage and flagmen are present. Flagging procedures, signage and detours shall conform to the recommendations of Book 7, Temporary Conditions, Ontario Traffic Manual, issued by the Ministry of Transportation. Conformance shall be enforced by the Ministry of Labour Inspector.

## **9. Access and Working Area**

Access to the work site for construction and future maintenance shall be from Ausable Drive and Lieury Road along the length of the drainage works.

The working area for the construction and future maintenance of the proposed tile drain shall be restricted to a width of 15m along the length of the drainage works normally centred on the proposed tile drain.

## **10. Removals**

The existing culverts, catch basins, leads, etc. where specified, shall be removed in their entirety.

## **11. Brushing and Tree Removal**

All brush, trees, woody vegetation, stumps etc. shall be removed for a width of 10 metres along the tile drain. They shall be removed in their entirety including stumps.

A mechanical grinder attached to an excavator be used for the removal of brush and trees. Any brush and trees too large to grind shall be close cut. The Contractor shall stockpile the trees and brush in a single pile on the property in which they were removed or dispose



of the trees and brush offsite. The Contractor is responsible for the burning of the trees and brush. The Contractor is responsible for obtaining all necessary permits for any disposal sites. Burning of the trees and brush is subject to local bylaws and guidelines of the Ministry of the Environment Conservation and Parks.

Certain trees may be left in place at the direction of the Drainage Superintendent.

## 12. Installation of Tile

All work shall conform to OPSS 401 and OPSS 410. The pipe sizes and grade shall be as per the drawings.

The storm main shall be HDPE smooth wall pipe (320 kPa) or PVC DR35 with bell and spigot joints and leads shall be PVC DR28 with bell and spigot joints.

The pipe shall be bedded with clear stone from 150mm below the invert to 300mm above the top of the pipe. Under the roadways and for a distance of 600mm on either side the pipe shall be backfilled with OPS granular “A” from the top of the bedding to the bottom of the asphalt. The asphalt shall be HL3 and HL4 and shall match the existing thicknesses. Under all other areas, the trench may be backfilled with excavated material above the bedding. All material shall be compacted to 98% S.P.M.D.D.

Excess excavated material shall be placed on the property with Roll Number 000-050-081.

The leads to the individual lots shall have an end cap and a 2”x4” above grade to denote their locations.

## 13. Catch Basins

Structure	Station	Type (mm)	Inlet Elev. (m)	Outlet Pipe Elev. (m)	Inlet Pipe Elev. (m)
CB #1 (FUTURE)	0+020	600x600	To Be Lowered From 234.20 to 234.00	233.10 (S) 250	233.19 (E) 300
CB #2	0+055	600x600	234.86	233.47 (W) 300	233.49 (E) / 233.60 (N) 300 / 200
CB #3	0+092	600x600	235.27	233.78 (W) 300	233.80 (E) / 233.95 (N) 300 / 200
CB #4	0+170	600x600	235.91	234.44 (W) 300	234.46 (E) 300

CB #5	0+240	600x600	237.15	235.03 (S) 300	235.05 (N) / 235.35 (W) 300 / 200
CB #6	0+281	600x600	237.15	235.38 (S) 300	235.40 (N) / 235.82 (W) 300 / 200
CB #7	0+308	600x600	237.28	235.61 (S) 300	235.63 (N) 300
CB #8	0+328	600x600	237.25	235.77 (S) 300	235.78 (E) / 235.80 (N) 236.12 (W) 300 / 300/ 200
CB #9 (FUTURE)	0+345	600x600	237.45	236.00 (W) 300	
CB #10	1+024	600x600	237.73	235.98 (S) 300	236.25 (N) 200

The unit price shall include supply and installation of precast concrete catch basins per OPSD-705.010 complete with precast adjustment units, and frame and grates per OPSD-400.02.

The catch basins shall be made with the top sections separate from the base sections in order to allow riser sections to be installed or removed as necessary (i.e. the base section shall not extend for more than 150mm above the top of the highest opening in the base section). The wall thickness of all structures shall be 115mm and each shall have a 300mm sump.

The catch basins shall be set at the final elevations as directed by the Drainage Superintendent. The catch basins shall be set on a layer of clear stone. The clear stone shall be extended up to the spring line of the inlet and outlet pipe connections.

The tile at the connection to the catch basins shall be concreted on both the inside and outside prior to backfilling. Any pipe or tile shall not protrude more than 50mm inside the wall.

As part of this item the Contractor shall grade the area in the vicinity of the basin to ensure proper drainage. Rip rap shall be installed around the basins. The rip rap shall be 150mmx300mm c/w filter fabric. The area to receive the rip rap shall first be graded to allow the placement of the rip rap to a depth of 400mm below finished grade. After grading, a layer of filter fabric (Mirafi P150 or approved equal) is to be placed with any joints overlapped a minimum of 600mm. Rip rap shall then be placed with the smaller pieces placed in the gaps and voids to give it a uniform appearance.

The catch basin elevations may be raised to match the grading of the developed lots. All such work shall be completed at the discretion of the Drainage Superintendent and all costs shall be borne by the owner of the property with Roll Number 000-050-081.

#### **14. Seeding/Restoration**

All areas disturbed by construction shall be returned to their pre-construction state. The road right of way and all other previous grassed areas where disturbed by construction, shall be topped with 100mm of screened topsoil and hydroseeded immediately following construction in accordance with the seed mixture, fertilizer and application rate as shown below.

Seed mixture, fertilizer and application rates are as follows:

- Canada Wild Rye (*Elymus Canadensis*), Virginia Wild Rye (*Elymus virginicus*), or Indian grass (*Sorghastrum nutans*)
- Fertilizer (300 kg/ha.) consisting of 8-32-16.
- Hydraulic mulch (2,999 kg/ha.) type "B" and water (52,700 litres/ha.) in accordance with OPSS 572 (hydroseed).

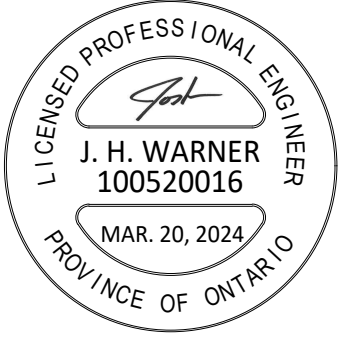
The above seed mixture shall apply unless otherwise approved by the Drainage Superintendent or Engineer.

#### **15. Environmental Considerations**

The Contractor shall take care to adhere to the following considerations.

- Operate machinery in a manner that minimizes disturbance to the banks of the watercourse.
- Erosion and sediment control measures must be installed prior to construction to prevent sediment from entering the water body.
- Material shall not be in areas regulated by the Conservation Authority or Ministry of Natural Resources.
- All granular and erosion control materials shall be stockpiled a minimum of 3.0m from the top of the bank or excavation. Material shall not be placed in surface water runs or open inlets that enter the channel.
- All activities, including maintenance procedures, shall be controlled to prevent the entry of petroleum products, debris, rubble, concrete, or other deleterious substances into the water. Vehicle and equipment refuelling and maintenance shall be conducted away from the channel, any surface water runs, or open inlets. All waste materials shall be stockpiled well back from the top of the bank and all surface water runs and open inlets that enter the drain.
- When possible, all construction within the open channel shall be carried out during periods of low flow or in dry conditions.

- The Contractor shall conduct regular inspections and maintain erosion and sediment control measures and structures during the course of construction.
- The Contractor shall repair erosion and sediment control measures and structures if damage occurs.
- The Contractor shall remove non-biodegradable erosion and sediment control materials once site is stabilized.
- Remove all construction materials from site upon project completion.



CONC. 17

CONC. 16

LOT 15

CONC. 8  
EAST OF CENTRE ROAD

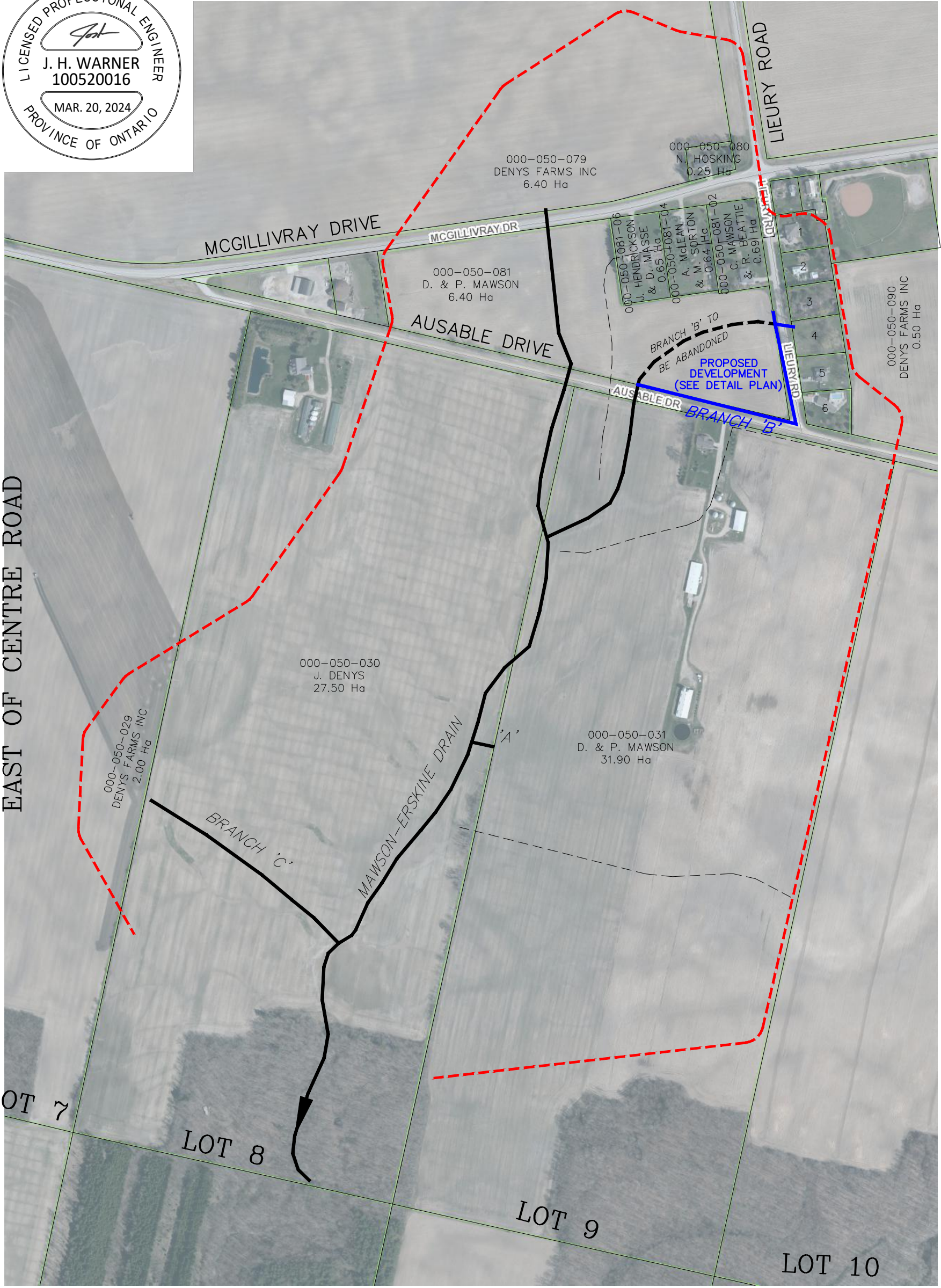
LOT 7

LOT 8

LOT 9

LOT 10

LOT 16

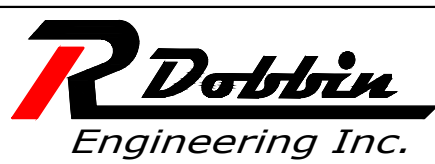


OWNER INDEX NUMBER

- 1. 000-50-087 M. WHITE & E. SOKOLOVA-WHITE 0.26 Ha
- 2. 000-50-086 P. WHITE 0.25 Ha
- 3. 000-50-085 C. & M. RODERT 0.25 Ha
- 4. 000-50-084 A. & J. CANTIN 0.27 Ha
- 5. 000-50-083 A. & J. CANTIN 0.27 Ha
- 6. 000-50-090-01 A. & H. SCOTT 0.25 Ha

LEGEND

- MAWSON-ERSKINE DRAIN BRANCH "B" RE-ROUTING
- MUNICIPAL DRAIN
- DRAINAGE AREA



4218 Oil Heritage Road  
Petrolia Ontario, N0N 1R0  
Phone: (519) 882-0032 Fax: (519) 882-2233

DRAWING NAME:  
Mawson-Erskine Drain Plan

PROJECT No.  
2023-1547

APPROVED	NO.	REVISIONS	DATE	BY
J. WARNER				
CHECKED	1	DRAFT REPORT	MAR. 20, 2024	CS
B. VAN RUITENBURG				
DRAWN	SCALE: 1:5000			
C. SAUNDERS	0 50 100 150m			

**MUNICIPALITY of NORTH MIDDLESEX**  
**MAWSON - ERSKINE DRAIN PLAN**

**1**  
**OF 3**

Last Updated: February 29, 2024



**LEGEND**

- MAWSON - ERSKINE DRAIN BRANCH 'B' RE ROUTE
- - - MAWSON - ERSKINE DRAIN BRANCH 'B' EXISTING
- - - - - PROPOSED RESIDENTIAL LOT LINE



4218 Oil Heritage Road  
 Petrolia Ontario, N0N 1R0  
 Phone: (519) 882-0032 Fax: (519) 882-2233

DRAWING NAME:  
 Mawson Erskine Drain Detail Plan

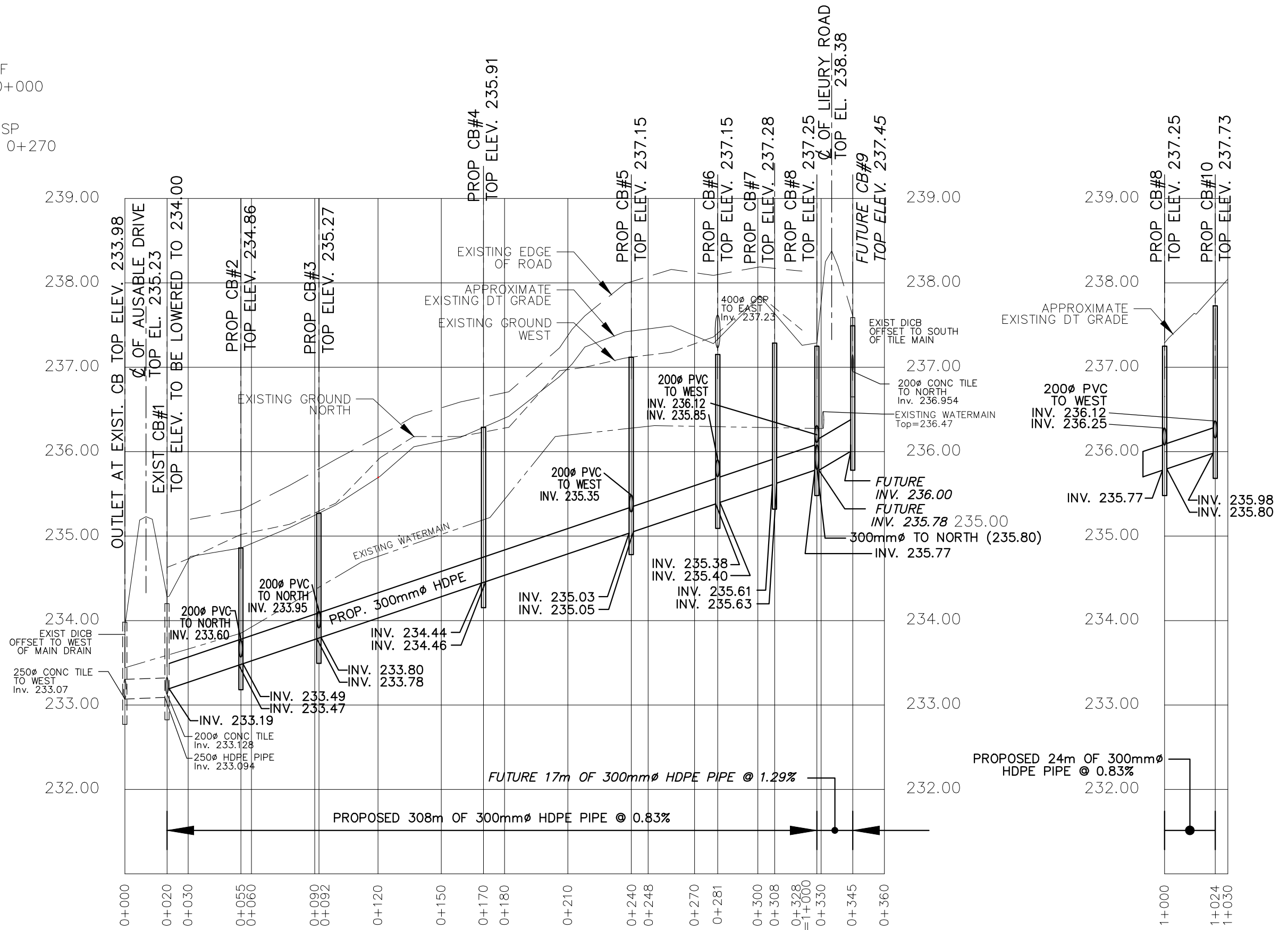
PROJECT No.  
 2023-1547

APPROVED	NO.	REVISIONS	DATE	BY
J. WARNER				
CHECKED C. SAUNDERS	1	FINAL REPORT	MAR. 20, 2024	CS
DRAWN B. VAN RUITENBURG	SCALE 1: 1000			

**MUNICIPALITY of NORTH MIDDLESEX**  
**MAWSON - ERSKINE DRAIN**  
**DETAIL PLAN**

# GENERAL NOTES

- BENCHMARK No.1 ELEV. 235.456  
NAIL IN HYDRO POLE SOUTH SIDE OF  
AUSABLE DRIVE WEST OF STATION 0+000  
BENCHMARK No.2 ELEV. 237.622  
TOP OF WEST END EXISTING 400 $\phi$  CSP  
CROSSING LEURY ROAD AT STATION 0+270
- UPPER NUMBERS ARE DEPTH FROM  
GROUND TO INVERT OF HDPE PIPE



4218 Oil Heritage Road  
Petrolia Ontario, N0N 1R0  
Phone: (519) 882-0032 Fax: (519) 882-2233

DRAWING NAME:  
Mawson-Erskine Drain "B" Profile

PROJECT No.  
2023-1512

APPROVED	NO.	REVISIONS	DATE	BY
J. WARNER				
CHECKED B. VAN RUITENBURG	1	FINAL REPORT	MAR. 20, 2024	CS
DRAWN C. SAUNDERS				

SCALE: 1:2,000  
0 20 40 60m

MUNICIPALITY of NORTH MIDDLESEX  
MAWSON - ERSKINE DRAIN "B"  
PROFILE

3  
OF 3