

September 10, 2026

The Mayor and Council
Municipality of North Middlesex
229 Parkhill Main Street
Parkhill, ON
N0M 2K0

Gentlemen and Mesdames:

Re: Mud Creek Drain (2026)

In accordance with your instructions, R. Dobbin Engineering Inc. has undertaken an examination of Mud Creek in the Municipality of North Middlesex.

This is a Reconsidered Report based on a September 2nd, 2026 Meeting to Consider.

Authorization under the Drainage Act

This Engineers Report that has been prepared under Section 78 of the Drainage Act as per a request from an affected Landowner.

R. Dobbin Engineering Inc. was originally appointed by council under Section 78.5 of the Drainage Act. Section 78.5 is for a minor improvement project where the following criteria are met:

- Project is initiated by an individual owner
- The initiating property owner is paying for all the costs of the project
- The project does not require access from neighbouring properties
- The project will not:
 - Result in changes to how future repair and maintenance costs are allocated to other property owners in the watershed
 - Change the drainage capacity
 - Result in the drain being enclosed
 - Take place within a wetland

Typically, culvert projects that would be eligible to proceed under Section 78.5 of the Drainage would be adding a second culvert on a Municipal Drain on a single property or extending an existing access on a Municipal Drain. Upon investigating the Mud Creek Drain on the property with Roll Number 000-050-111-02 it was determined that the project would not be eligible for a minor improvement project as there is not an existing crossing on the Mud Creek Drain.

Therefore, R. Dobbin Engineering Inc. was appointed by council on July 16th, 2025 under Section 78.1 of the Drainage Act for a major improvement project.

Under Section 78 of the Drainage Act, Council may undertake and complete the maintenance or repair of any drainage works constructed under a bylaw passed under this Act or its predecessor. Section 78 is to be used where it is considered expedient to change the course of the drainage works, or to make a new outlet for the whole or any part of the drainage works, or to construct a tile drain under the bed of the whole or any part of the drainage works as ancillary thereto, or to construct, reconstruct or extend embankments, walls, dykes, dams, reservoirs, bridges, pumping stations, or other protective works as ancillary to the drainage works, or to otherwise improve, extend to an outlet or alter the drainage works or to cover the whole or any part of it, or to consolidate two or more drainage works, the Council whose duty it is to maintain and repair the drainage works or any part thereof may, without a petition required under Section 4 but on the report of an Engineer appointed by it, undertake and complete the drainage works as set forth in such report.

Background

The last Engineer's Report for Mud Creek is dated February 18, 2003. Under this report the drain was cleaned in the Municipality of North Middlesex from Lot 20, NBC downstream 5700m into Lot 11, Concession 16.

Drain Classification

Mud Creek is currently classified as a Class "C" drain at the proposed culvert location according to the Department of Fisheries and Oceans (DFO) classification as presented by the Ontario Ministry of Agriculture, Food and Rural Affairs' Agricultural Information Atlas.

Approvals

The drain will require approval from the Ausable Bayfield Conservation Authority and the Department of Fisheries and Oceans. Construction cannot commence without necessary approvals.

On-Site Meeting

A site meeting was held on January 27, 2025. At the time, the project appointment was under Section 78.5 of the *Drainage Act* as a minor improvement project. However, all landowners abutting the drain within the Municipality of North Middlesex were invited to attend. As this is the same group of landowners that would typically be invited to a site meeting for a major improvement project under Section 78.1, it is our opinion that the intent and requirements of Section 9 of the *Drainage Act* with respect to the site meeting were satisfied.

One of the primary purposes of the site meeting is to obtain input from affected landowners and determine whether there are any additional drainage concerns or proposed improvements that should be considered beyond those identified in the original appointment. Since R. Dobbin

Engineering's appointment was limited to the Municipality of North Middlesex, the firm did not have the authority to undertake work in upstream municipalities without a separate appointment. As a result, inviting landowners from the entire watershed would not have furthered the primary purpose of the site meeting, as any concerns outside the municipality's jurisdiction could not have been addressed as part of this appointment.

The following were present at the meeting:

- Josh Warner (R. Dobbin Engineering)
- Joanne Sadler (Drainage Superintendent, Municipality of North Middlesex)
- Kristyn Wilson (Drainage Clerk, Municipality of North Middlesex)
- Kyle McCann (Landowner)
- Sylar Vanosch (Landowner)

The following is a brief summary of the meeting:

- General discussion of the Drainage Act and Landowners rights under the Drainage Act.
- Landowners were made aware that the owner of the property with Roll Number 000-050-111-02 has requested a culvert on their property.
- No other requests were brought forward.

Draft Report #1

A draft report, dated October 21, 2025 was produced and a meeting was held on November 27, 2025 to go over the report and address any questions and concerns related to the draft report. The following were present at the meeting:

- Josh Warner (R. Dobbin Engineering)
- Joanne Sadler (Drainage Superintendent, Municipality of North Middlesex)
- Kristyn Wilson (Drainage Clerk, Municipality of North Middlesex)
- Milt Dietrich (Landowner)

The following is a brief summary of the meeting:

- General discussion of the Drainage Act and assessments as part of the report.
- No major concerns were brought forward.

December 1, 2025 Report

A report dated December 1, 2025, was prepared by R. Dobbin Engineering and distributed to the landowners within the watershed. A Meeting to Consider the Report had originally been scheduled for January 14, 2026. Prior to the meeting, the requesting landowners decided to place the project on hold to allow additional time to evaluate whether they wished to proceed. As a result, the Meeting to Consider the Report was postponed.

In May of 2026, the Landowners notified the Municipality of North Middlesex that they wished to proceed with the project. The design of the project remains unchanged from the version originally circulated. The assessment schedule has been revised slightly to reflect the separation of the parcel with Roll Number 27-057 into two parcels, along with \$1 adjustments allocated to lands and roads due to rounding.

Draft Report #2

Due to a large number of concerned Landowners on the drain another draft report meeting was held. The draft report was dated May 26th, 2026 and a meeting was held on June 16th, 2026. The following were present at the meeting:

- Josh Warner (R. Dobbin Engineering)
- Joanne Sadler (Drainage Superintendent, Municipality of North Middlesex)
- Kristyn Wilson (Drainage Clerk, Municipality of North Middlesex)
- Andy Kester (Drainage Superintendent, Municipality of Bluewater)
- Parker Merkley (Landowner)
- Larry (Landowner)
- Jason Van Osch (Landowner)
- Gerard Van Osch (Landowner)
- Dave McCann (Landowner)
- Terry Hodgins (Landowner)
- Richard Eisert (Landowner)
- Robert Cuillerier (Landowner)
- Eugene Glavin (Landowner)
- Earl (Landowner)
- Milt Dietrich (Landowner)
- Hugh Ryan (Landowner)
- Bill Jeffrey (Landowner)
- John Vanhie (Landowner)
- Randy Yearley (Landowner)
- Robert (Landowner)
- Robert Pertschy (Landowner)
- Mark Ryan (Landowner)
- Ron (Landowner)
- Jim Neil (Landowner)
- Dennis McCann (Landowner)
- Greg Vanhie (Landowner)
- Gerard Gielen (Landowner)
- Chris Mullin (Landowner)
- Perry Scwab (Landowner)
- Larry Ryan (Landowner)
- Chuck Ford (Landowner)

- George Finch (Landowner)
- Steve (Landowner)

The following is a brief summary of the meeting:

- R. Dobbin Engineering Inc. presented the report and outlined the improvement request, the appointment by council, design, assessment rationale and next steps in the Drainage Act process. It was discussed that the culvert is designed for a 1 in 2-year storm event, therefore under certain storm events the culvert will not be able to handle the flows and there will be localized flooding.
- Landowners had two main concerns with this project.

1. Is the culvert required as there is an existing access across a road side ditch on Mount Carmel Drive?

The existing Mount Carmel Drive access is considered unsafe. A hill located west of the access restricts sightlines, creating visibility concerns for vehicles entering or exiting the roadway. In addition, a guiderail adjacent to the access limits the available shoulder width, preventing farm equipment travelling eastbound from safely pulling off the roadway. No other suitable access location to the property exists other than by creating a crossing on the Mud Creek Drain.

Regardless of the above, Council appointed R. Dobbin Engineering to prepare a report under the Drainage Act to investigate and propose a crossing on the Mud Creek Drain. This report has therefore been prepared in fulfillment of our obligations under the Drainage Act and Council's appointment.

2. Why are a portion of the costs to complete this project assessed to upstream properties and how was the 80% outlet assessment determined?

R. Dobbin Engineering explained that culverts on Municipal Drains are typically assessed at a shared cost, similar to other components of a Municipal Drain. Assessments to upstream lands are made as an outlet liability under Section 23 of the Drainage Act and are based on the volume and rate of flow contributed by each property.

It has been R. Dobbin Engineering's long-standing practice to assess a portion of the cost of an access culvert to upstream lands where the culvert represents the only crossing on a property. Where a property already has an existing access crossing on the drain, any additional access crossing is typically assessed as 100% benefit to the requesting property.

The Ontario Ministry of Agriculture, Food and Agribusiness's (OMAFRA) Agricultural Drainage Infrastructure Program (ADIP) Administrative Policies recognize that agricultural properties are generally entitled to one drain crossing for grant eligibility purposes. While neither the Drainage Act nor the ADIP policies prescribe a specific

assessment methodology for access culverts, R. Dobbin Engineering believes that the assessment approach used in this report is consistent with both the intent of the legislation and industry practice.

R. Dobbin Engineering proposed that 20% of the cost of the culvert be assessed as a benefit assessment to the subject property, with the remaining 80% assessed to upstream lands as an outlet liability.

For a typical culvert replacement on a Municipal Drain, the percentage assessed as a benefit to the requesting property is generally higher than 20%. However, the proposed culvert crossing is significantly more expensive than a typical crossing due to the size of the upstream watershed and the corresponding culvert size required to safely convey drainage flows. In R. Dobbin Engineering's opinion, it is therefore appropriate that a greater proportion of the cost be assessed to upstream lands that rely on the crossing to convey drainage flows.

The proposed 80% outlet assessment was determined by reviewing the per-acre outlet assessments associated with similar culvert projects completed in southwestern Ontario. Applying an 80% outlet assessment to this watershed results in an average assessment of approximately \$37/ha (\$15/acre, or approximately \$10/acre after grant) to agricultural properties. This value was compared to assessments from several comparable culvert projects completed by R. Dobbin Engineering over the past year and was found to be consistent with the typical per-acre cost experienced on those projects.

Based on this review, R. Dobbin Engineering believes that the proposed assessment methodology represents a fair and equitable allocation of costs for the proposed culvert crossing.

Meeting to Consider the Report (September 2nd, 2026)

A report dated July 23, 2026, was submitted to the Municipality, and a Meeting to Consider the Report was held on September 2, 2026. The report proposed the installation of approximately 10 m of 6553 x 2744 mm concrete box culvert, complete with concrete blocks. The culvert was designed to provide an outlet for a 1 in 2-year storm event. The total estimated cost for this project was \$252,290.

At the Meeting to Consider the Report, Landowners and Council discussed whether a different design storm would be more appropriate for the proposed agricultural crossing. There was also discussion regarding the height of the concrete blocks and the potential need to modify the block system. In addition, consideration was given to relocating the proposed culvert to another location along the drain.

Council subsequently adopted the following resolution directing the Engineer to amend the report:

- **Council defer the Engineer's Report to a future meeting for reconsideration and potential revision to the drain design; AND THAT Council request additional design specifications including culvert design, location, and level of storm event through R. Dobbin Engineering.**

Following the Meeting to Consider, the Municipality contacted the Landowner to determine whether an alternate location along the drain could provide an equally suitable or improved location for the proposed culvert. The Landowner advised that the location identified in the original report was the most suitable location to facilitate their farming operation.

R. Dobbin Engineering has reviewed the proposed location and agrees that it is suitable from a drainage and engineering perspective. Based on the Landowner's requirements and the suitability of the proposed location within the drainage works, there is no engineering justification to relocate the culvert. Accordingly, the location proposed in the July 23, 2026 report has been retained.

In response to Council's direction, the design storm for the proposed access culvert has been increased from a 1 in 2-year storm event to a 1 in 5-year storm event. The *Guide for Engineers Working under the Drainage Act in Ontario (Publication 852)* recommends that access culverts generally be designed to accommodate either a 1 in 2-year or 1 in 5-year storm event. Accordingly, R. Dobbin Engineering considers the 1 in 5-year design storm to be an appropriate and reasonable modification to the original design.

The concrete block system has also been revised. The revised design incorporates interlocking concrete blocks, together with geogrid reinforcement and epoxy-reinforced connections to secure the blocks to the concrete box culvert. These measures are consistent with construction approaches that R. Dobbin Engineering typically recommends for road and access culverts where additional stability of the block system is required. The revisions have been incorporated into this report in response to Council's direction and are presented for Council's consideration.

As a result of the revised concrete block end-wall configuration, individual setbacks between the blocks are no longer required. This eliminates the additional length previously required to accommodate the block setbacks and allows the overall culvert length to be reduced. The culvert length has therefore been revised accordingly as part of this report.

Recommendations

It is therefore recommended that the following work be carried out:

1. A new 6860 x 3048 mm concrete box culvert, approximately 9.0 m in length, be installed on the property with Roll Number 000-050-111-02 at the location shown on the accompanying plan and profile, complete with interlocking concrete block

end walls, geogrid reinforcement, epoxy-reinforced connections and associated erosion protection, as specified in this Report.

Design

The access culvert has been designed to provide outlet for a 1 in 5-year storm event. This is consistent with the recommendations contained in the *Guide for Engineers Working under the Drainage Act in Ontario (Publication 852)*.

Estimate of Cost

It is recommended that the work be carried out in accordance with the accompanying Specification of Work and Profile that forms part of this Report. There has been prepared an Estimate of Cost in the amount of \$307,750, including engineering of the report, attending the Meeting to Consider the Report, attending the Court of Revision, and an estimate for tendering, contract administration and inspection. Appearances before appeal bodies have not been included in the cost estimate.

A plan has been prepared showing the location of the work and the approximate drainage area. A profile is included showing the depths and grades of the proposed work.

Assessment

As per Section 21 of the Drainage Act, the Engineer in their Report shall assess for benefit and outlet for each parcel of land and road liable for assessment. Lands, roads, buildings, utilities, or other structures that are increased in value or are more easily maintained as a result of the construction, improvement, maintenance, or repair of a drainage works may be assessed for benefit. (Section 22)

Lands and roads that use a drainage works as an outlet, or for which, when the drainage works is constructed or improved, an improved outlet is provided either directly or indirectly through the medium of any other drainage works or of a swale, ravine, creek, or watercourse may be assessed for outlet. The assessment for outlet shall be based on the volume and rate of flow of the water artificially caused to flow into the drainage works from the lands and roads liable for such assessments. (Section 23)

The Engineer may assess for special benefit any lands for which special benefits have been provided by the drainage works. (Section 24)

A Schedule of Assessment for the lands and roads affected by the work and therefore liable for the cost thereof will be prepared as per the Drainage Act. Also, assessments may be made against any public utility or road authority, as per Section 26 of the Drainage Act, for any increased cost for the removal or relocation of any of its facilities and plant that may be necessitated by the construction or maintenance of the drainage works.

The cost of any approvals, permits or any extra work, beyond that specified in this Report that is required by any utility, government ministry or organization (federal or provincial), or road authority shall be assessed to that organization requiring the permit, approval, or extra work.

The estimated cost of the drainage works has been assessed in the following manner:

1. The culvert has been assessed with 20% of the cost applied to the property with Roll Number 000-050-111-02 and the remainder applied as outlet assessment to the upstream lands and roads based on equivalent hectares.

In the July 23, 2026 report, part of the justification for the 20% benefit and 80% outlet assessment split was that the resulting cost per acre to the upstream properties was generally comparable to other agricultural culvert projects completed in the area. As a result of the proposed modifications outlined in this report, the overall project cost has increased; however, the resulting outlet assessment to the upstream agricultural properties is approximately \$18 per acre. It is R. Dobbin Engineering's opinion that this assessment remains consistent with the outlet assessments typically associated with similar agricultural culvert projects in the area. Accordingly, we recommend that the 20% benefit and 80% outlet assessment split be maintained.

All final costs included in the cost estimate of this report, except as identified above, shall be pro-rated based on the Schedule of Assessment. Any additional costs shall be assessed in a manner as determined by the Engineer in accordance with the Drainage Act.

Allowances

Under Section 29 of the Drainage Act, the Engineer in his report shall estimate and allow in money to the Owner of any land that it is necessary to use for the construction or improvement of a drainage works or for the disposal of material removed from drainage works. This shall be considered an allowance for right-of-way.

Under Section 30 of the Drainage Act, the Engineer shall determine the amount to be paid to persons entitled thereto for damage, if any, to ornamental trees, lawns, fences, land and crops occasioned by the disposal of material removed from a drainage works. This shall be considered an allowance for damages.

Allowances have been made, where appropriate, as per Section 29 of the Drainage Act for right-of-way and as per Section 30 of the Drainage Act for damages to lands and crops. Allowances for right of way are based on a land value of \$50,000.00 per hectare (\$20,000.00 per acre). Allowances for crop loss are based on \$2,000.00 per hectare for the first year and \$1,000.00 for the second year (\$3,000.00 per hectare total).

Access and Working Area

Access to the work site for construction shall be from Creamery Road. Access shall be restricted to a width of 15m. The working area at the culvert shall extend 20 metres from the bank on both sides and for 10 metres along the channel on either side of the culvert.

Agricultural Grant

If available, it is recommended that application for subsidy be made for eligible agricultural properties. Any assessments against non-agricultural properties are shown separately in the Schedule of Assessment.

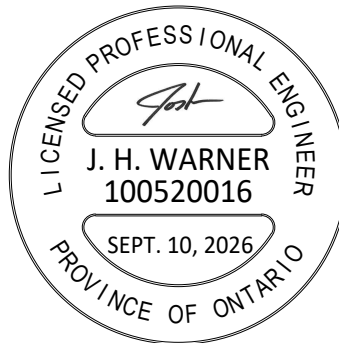
Maintenance

The culvert proposed under this report shall be maintained and repaired in the same proportions as contained in the Schedule of Assessment.

Yours truly,



Josh Warner, P. Eng.
R. Dobbin Engineering Inc



Mud Creek Drain
Municipality of North Middlesex
September 10, 2026

ALLOWANCES

Allowances have been made as per Sections 29 & 30 of the Drainage Act for Right of Way and damages to lands and crops

Conc.	Lot or part	Roll No.	Owner	Section 29 (\$)	Section 30 (\$)	Total (\$)
NB	Lot 20	000-050-111-02	Van Osch Farms Limited	-	300	300
TOTAL ALLOWANCES				\$0	\$300	\$300

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	200	200
Brushing and Tree Removal	1	LS	1,000	1,000
Strip and spread Topsoil for Entrance off Creamery Road	300	sq.m	4	1,200
Supply and Install 6860x3048mm Concrete Box Culvert c/w Bedding and Connection Plates	9	m	19,000	171,000
Supply and Install Granular "B" Type II Backfill	450	tonne	44	19,800
Supply and Install Crushed Granular "A"	50	tonne	50	2,500
Supply and Install Interlocking Concrete Block End Walls	106	each	400	42,400
Rip Rap adjacent Block Endwalls	20	tonne	150	3,000
Supply and Install Geogrid between the Rows of Concrete Blocks	1	LS	4,000	4,000
Supply and Install 20mm Epoxy Rebar to Secure Concrete Blocks to the Box Culvert	24	each	200	4,800
Silt Fence	1	LS	500	500
Restoration and Seeding	1	LS	2,000	2,000
Contingency				12,630
	Sub Total			265,030
	Allowances			300
	Engineering			16,360
	Plan, Drainage Area Delineation and Schedules			11,800
	Estimate for Tendering, Inspection and Contract Administration			8,500
	ABCA Fee			450
	Total Estimate excluding HST			302,440
	Non-Recoverable HST (1.76%)			5,310
	Total Estimate			\$ 307,750

SCHEDULE OF ASSESSMENT

Conc.	Lot or Part	Affected Hectares	Roll No.	Owner	Benefit	Outlet	Total
Municipality of South Huron (Stephen Ward)							
Public Lands							
	Mount Carmel Drive (County Road #5)	6.10		County of Huron	-	1,112	1,112
	Crediton Road	12.70		County of Huron	-	2,317	2,317
	Dashwood Road	5.70		County of Huron	-	1,039	1,039
	Goshen Line	12.10		Municipality of South Huron	-	2,207	2,207
	Babylon Line	21.00		Municipality of South Huron	-	3,831	3,831
	Parr Line	1.20		Municipality of South Huron	-	218	218
	South Road	10.10		Municipality of South Huron	-	1,842	1,842
	Kirkton Road	8.50		Municipality of South Huron	-	1,550	1,550
	Huron Street	4.90		Municipality of South Huron	-	893	893
					-	15,009	15,009
Non-Agricultural Lands							
6	Pt. Lot 8	1.20	07-007-10	R. & S. Ryan	-	109	109
	N Pt. Lot 9	0.20	07-009	H. Julien & K.Monteith	-	18	18
	S Pt. Lot 9	2.00	07-008	B. Clarke	-	182	182
	N Pt. Lot 9	1.20	07-010	D. Thompson	-	109	109
7	Pt. Lot 10	0.10	30-109-15	B.Dixon	-	9	9
	Pt. Lot 10	0.10	30-109-10	A.Bosco	-	9	9
	Pt. Lot 10	0.10	30-109-05	S. & J. Morley	-	9	9
	Pt. Lot 10	0.10	30-109	M. & K. MacDonald	-	9	9
	Pt. Plan 212	1.23	30-112	B. Benoit & T.Hayter	-	112	112
	Pt. Plan 212	1.10	30-059	C. & A. Tripp	-	100	100
	Pt. Plan 212	0.20	30-060	M. Sherwood	-	18	18
	Pt. Plan 212	0.80	30-061	B. & J. Harrison	-	73	73
	Pt. Plan 212	0.80	30-062	V. Pooley	-	73	73
	Pt. Plan 212	2.40	30-063	Crediton Cemetery Board Trustees	-	219	219
	Pt. Plan 212	0.80	30-064	W.Michielsens	-	73	73
	Pt. Plan 212	0.50	30-064-01	A. Bierling & Z. Boyle	-	46	46
	Pt. Plan 212	0.30	30-064-10	W. Bierling	-	27	27
	Pt. Plan 212	0.80	30-064-15	R. Van Valkengoed	-	73	73
	Pt. Plan 212	0.80	30-064-20	J. & J. Owens	-	73	73
	Pt. Plan 212	0.80	30-064-25	C. & S. Schwartzentruber	-	73	73
	Pt. Plan 212	0.80	30-064-30	Z. & P. Wilson	-	73	73
	Pt. Plan 212	0.80	30-064-35	L. & V. Guillet	-	73	73
	Pt. Plan 212	0.80	30-064-40	J. Brozic & M. Nadeau-Brozic	-	73	73

Conc.	Lot or Part	Affected Hectares	Roll No.	Owner	Benefit	Outlet	Total
	Pt. Plan 212	0.80	30-064-45	D. & J. Helder	-	73	73
	Pt. Plan 212	2.40	30-064-95	South Huron Municipality	-	219	219
	Pt. Lot 12	0.27	07-014-10	R. & D. Haines	-	25	25
8	Pt. Lot 8	0.02	08-008	Methodist Church	-	2	2
	Pt. Lot 8	0.30	08-010	T. & C. Houston	-	27	27
	Pt. Lot 10	2.50	08-013	M. & B. Brand	-	228	228
	Pt. Lot 13	1.10	08-019	K. Schwartzentruber	-	100	100
	Pt. Lot 16	1.20	08-023-05	C.Eveland & V.Laye	-	109	109
	Pt. Lot 21	0.40	08-029	L.Genno	-	36	36
9	Pt. Lot 6	0.87	09-006-02	J. & K.Vanhie	-	79	79
	Pt. Lot 19	1.00	09-022-02	S. & S. Davies	-	91	91
10	Pt. Lot 11	10.10	10-011	Avon Maitland District School Board	-	691	691
	Pt. Lot 14	1.20	10-015-05	A. Glavin	-	109	109
	N Pt. Lot 15	20.20	10-016	G. & M. Pfaff	-	922	922
	Pt. Lot 17	1.20	10-019-01	B.Butson	-	109	109
	Pt. Lot 21	0.57	10-025-02	K. & S. Ford	-	52	52
11	Pt. Lot 9	0.20	11-006-01	C.Finlay, S. & W. McDonald	-	18	18
	Pt. Lot 9	0.20	11-006-03	D. Gale	-	18	18
	Pt. Lot 9	0.20	11-006-04	A. Bedard	-	18	18
	Pt. Lot 9	0.20	11-006-05	I. Poss & V. Francis-Poss	-	18	18
	Pt. Lot 9	0.40	11-006-06	C. Dale & J. Wiszniowski	-	36	36
	Pt. Lot 10	0.20	11-007-02	D. Regier	-	18	18
	Pt. Lot 11	0.10	11-009	W. Thomson & J.Edye	-	9	9
	Pt. Lot 14	0.30	11-013-05	2494986 Ontario Ltd.	-	27	27
	Pt. Lot 15	0.80	11-014-01	M.Hogarth	-	73	73
	Lot 16	2.40	11-015	D. Hartman	-	219	219
NB	Pt. Lot 16	0.80	28-020	P. & K. Dearing	-	73	73
	Pt. Lot 17	0.60	28-021-05	W. & H.Wagner	-	55	55
SB	Pt. Lot 14	0.40	27-061-05	M. & J. Schwindt	-	36	36
	Pt. Lot 14	0.50	27-061-50	Vanhie Farms Ltd & M.Vanhie	-	46	46
	Pt. Lot 16	0.50	27-058	R. & R. Harrigan	-	46	46
	S Pt. Lot 19	0.40	27-055-05	K. & M. Glavin	-	36	36
					-	5,251	5,251
Agricultural Lands							
7	Lot 3	30.40	07-001	MS Muller Farms Ltd	-	1,387	1,387
	Lot 4	34.40	07-002	J. & P. Glavin	-	1,569	1,569

Conc.	Lot or Part	Affected Hectares	Roll No.	Owner	Benefit	Outlet	Total
8	S Pt. Lot 5	6.50	07-003	M. & M. Thompson	-	297	297
	Pt. Lot 5	34.00	07-004	G&C Geurts Farms Ltd	-	1,551	1,551
	Lot 6	40.50	07-005	S.Lightfoot	-	1,848	1,848
	Lot 7	40.50	07-006	MS Muller Farms Ltd	-	1,848	1,848
	Pt. Lot 8 & Pt. Lot 9	58.70	07-007	JK Gielen Farms Inc & J.Gielen	-	2,678	2,678
	N Pt. Lot 9	13.00	07-011	S. & R. Pertschy	-	593	593
	Pt. Lot 10	33.90	07-012-01	J. Morrissey	-	1,547	1,547
	Pt. Lot 11 & Pt. Lot 12	54.20	07-014	Ron O'Brien Farms Ltd.	-	2,473	2,473
	Lot 13	38.50	07-015	H. & Y. Hendrick	-	1,756	1,756
	S Pt. Lot 14	19.80	07-016	S. & T. Finkbeiner	-	903	903
	N Pt. Lot 14	18.60	07-017	M. & E. Flutters	-	849	849
	Pt. Lot 15	1.20	07-018	J.Forrest & E. DeWetering	-	55	55
	Pt. Lot 15	35.20	07-019	N. Vincent	-	1,606	1,606
	S Pt. Lot 16	17.80	07-021	P. McFadden	-	812	812
	N Pt. Lot 16	16.20	07-021-01	E. & M. Sorensen	-	739	739
	Lot 17	26.30	07-022	M. & A. Stephan	-	1,200	1,200
	Lot 18	12.10	07-023	M. & A. Stephan	-	552	552
	Lot 19	1.20	07-024	G. & K. Hendrick	-	55	55
	S Pt. Lot 3	20.20	08-001	E.Glavin & T. Wammes-Glavin	-	922	922
	N Pt. Lot 3	20.20	08-002	L. Ryan	-	922	922
	Lot 4	40.50	08-003	W. & M. Jeffrey	-	1,848	1,848
	Pt. Lot 5	1.40	08-004	E. & M. Sorensen	-	64	64
	Pt. Lot 5	39.10	08-004-05	MS Muller Farms Ltd	-	1,784	1,784
	Lot 6	40.50	08-005	J. & C. Vanhie	-	1,848	1,848
	S Pt. Lot 7	20.20	08-006	JK Gielen Farms Inc	-	922	922
	N Pt. Lot 7	20.20	08-007	D. & M. Lamport	-	922	922
	Pt. Lot 8	19.90	08-009	JK Gielen Farms Inc	-	908	908
	Pt. Lot 8	20.20	08-011	JK Gielen Farms Inc	-	922	922
	Pt. Lot 9	20.60	08-012	JK Gielen Farms Inc	-	940	940
	Pt. Lot 9 & Pt. Lot 10	57.10	08-014	J. Morrissey	-	2,605	2,605
	Lot 11 & Pt. Lot 12	50.10	08-016	G & L Gielen Farms Ltd	-	2,286	2,286
	N Pt. Lot 12	30.40	08-017	C. Mullin	-	1,387	1,387
	S Pt. Lot 13	20.20	08-018	1000338149 Ontario Limited	-	922	922
	Pt. Lot 13 & Pt. Lot 14	59.60	08-021	S. Finkbeiner	-	2,719	2,719
	Lot 15	40.50	08-022	K. Schwartz	-	1,848	1,848
	Pt. Lot 16	39.30	08-023	R.Yearley	-	1,793	1,793
	Pt. Lot 17	37.31	08-024	JK Gielen Farms Inc	-	1,702	1,702
	Pt. Lot 17	3.19	08-024-10	D.Finkbeiner	-	146	146
	Lot 18	40.50	08-025	J & N Morlock Ltd	-	1,848	1,848
	Lot 19 & Pt. Lot 20	59.10	08-026	R. & H. & M. Eisert	-	2,696	2,696
	E Pt. Lot 20	6.90	08-027	G & C Geurts Farms Ltd	-	315	315
	Pt. Lot 21	17.40	08-028	R. & H. & M. Eisert	-	794	794
	Lot 22	13.40	08-030	Rasenberg Investments Limited	-	611	611

Conc.	Lot or Part	Affected Hectares	Roll No.	Owner	Benefit	Outlet	Total
9	Lot 23	6.90	08-031	B.Martene & S.Baker	-	315	315
	S Pt. Lot 3	27.00	09-001	L.Ryan	-	1,232	1,232
	Pt. Lot 3 & Pt. Lot 4	27.00	09-002	L.Ryan	-	1,232	1,232
	Pt. Lot 4	23.50	09-003	R.O'Brien	-	1,072	1,072
	Pt. Lot 4 & Pt. Lot 5	23.80	09-004	Ron O'Brien Farms Ltd.	-	1,086	1,086
	N Pt. Lot 5	20.20	09-005	R.O'Brien	-	922	922
	Pt. Lot 6	40.50	09-006	D. & M. Lamport	-	1,848	1,848
	Lot 7 & Pt. Lot 8	70.80	09-007	D. & M. Lamport	-	3,230	3,230
	E Pt. Lot 8	10.10	09-009	T.Mellin	-	461	461
	Lot 9	40.50	09-010	JK Gielen Farms Inc	-	1,848	1,848
	Lot 10	39.90	09-011	Ron O'Brien Farms Ltd.	-	1,820	1,820
	Pt. Lot 11	29.80	09-012	D. & D. Dietrich	-	1,360	1,360
	Pt. Lot 11	10.10	09-013	G. & L. Gielen	-	461	461
	Pt. Lot 12	15.40	09-013-15	G. Gielen	-	703	703
	Pt. Lot 12	8.10	09-014	S. & P. Schwab	-	370	370
	Pt. Lot 12 & Lot 13	57.50	09-015	1000338149 Ontario Limited	-	2,623	2,623
	S Pt. Lot 14	20.20	09-016	J.Reynen	-	922	922
	Pt. Lot 14 & Lot 15	40.50	09-017	K.Schwartz	-	1,848	1,848
	N Pt. Lot 15	20.20	09-018	K. & M. Schwartz	-	922	922
	Lot 16	40.50	09-019	Van Osch Farms Limited	-	1,848	1,848
	Lot 17	40.50	09-020	Van Osch Farms Limited	-	1,848	1,848
	Lot 18	40.50	09-021	Van Osch Farms Limited	-	1,848	1,848
	Pt. Lot 19 & Lot 20	80.90	09-022	Van Osch Farms Limited	-	3,691	3,691
	S Pt. Lot 21	20.20	09-024	Ford Agra Ltd	-	922	922
	Pt. Lot 21 & Lot 22	60.70	09-025	C. & R. Neeb	-	2,769	2,769
	Lot 23	40.50	09-026	E.Martene & 2554996 Ontario Inc	-	1,848	1,848
10	S Pt. Lot 3	20.20	10-001	P. & M. Hall	-	922	922
	Pt. Lot 3 & Pt. Lot 4	20.80	10-002	Goshen Farms Inc	-	949	949
	Pt. Lot 4 & Pt. Lot 5	37.50	10-003	M.Ryan	-	1,711	1,711
	E Pt. Lot 5	20.20	10-004	D.Lamport	-	922	922
	E Pt. Lot 6	20.20	10-004-01	D. & M. Lamport	-	922	922
	Pt. Lot 6 & Lot 7	60.70	10-005	M.Ryan	-	2,769	2,769
	Lot 8	40.50	10-006	J. & K. Gielen & JK Gielen Farms Inc	-	1,848	1,848
	Lot 9	40.50	10-007	M.Ryan	-	1,848	1,848
	Plan 124 Lot 1 to 3 & E Pt. Lot 4	14.40	10-008	Ron O'Brien Farms Ltd.	-	657	657
	W Pt. Lot 10	25.60	10-010	N.Veri	-	1,168	1,168
	E Pt. Lot 11	8.50	10-009	D. & D. Dietrich	-	388	388
	Pt. Lot 11	11.60	10-010-01	M. & B. Dietrich	-	529	529
	Pt. Lot 11	10.70	10-012	D. & K. Smale	-	488	488
	Lot 12	35.60	10-013	1904633 Ontario Inc.	-	1,624	1,624
	Lot 13	37.20	10-014	M. & B. Dietrich	-	1,697	1,697

Conc.	Lot or Part	Affected Hectares	Roll No.	Owner	Benefit	Outlet	Total
11	Pt. Lot 14 & Pt. Lot 15	59.50	10-015	Exeter Produce & Storage Co Limited	-	2,714	2,714
	Lot 16	40.50	10-017	Norman Regier Farms Ltd & Draw Inc.	-	1,848	1,848
	Pt. Lot 17	39.30	10-019	2749873 Ontario Inc.	-	1,793	1,793
	Lot 18 & Pt. Lot 19	62.30	10-020	Norman Regier Farms Ltd & N.Regier	-	2,842	2,842
	Pt. Lot 19	8.10	10-022	Van Osch Farms Limited	-	370	370
	Pt. Lot 19 & Pt. Lot 20	27.50	10-023	D. Lampport	-	1,255	1,255
	W Pt. Lot 20	10.10	10-024	C. & R. Neeb	-	461	461
	Pt. Lot 21	30.40	10-025	Ford Agra Ltd & C. & D. Ford	-	1,387	1,387
	Pt. Lot 22	28.30	10-026	Sam Regier Farms Ltd & Norman Regier Fa	-	1,291	1,291
	Pt. Lot 3	15.20	11-001	H. & D. Ryan	-	693	693
	Pt. Lot 3	19.20	11-001-05	Norman Regier Farms Ltd.	-	876	876
	Lot 4	38.90	11-002	Norman Regier Farms Ltd.	-	1,775	1,775
	Lot 5	39.30	11-003	F.Heeman & M. Ryan-Allen	-	1,793	1,793
	Lot 6	22.30	11-004-01	Goshen Farms Inc.	-	1,017	1,017
	Lot 7	18.20	11-004	Goshen Farms Inc.	-	830	830
	Lot 8	12.10	11-005	Eilers Farms (Ontario) Incorporated	-	552	552
	Pt. Lot 9	14.10	11-006	2749873 Ontario Inc.	-	643	643
	Pt. Lot 10	15.80	11-007	Norman Regier Farms Ltd & Draw Inc.	-	721	721
	Pt. Lot 11	4.10	11-010	2749876 Ontario Inc.	-	187	187
	NB	Pt. Lot 14	1.30	11-013	J. & M. Veri	-	59
Pt. Lot 14 & Pt. Lot 15		2.00	11-014	Exeter Produce & Storage Co Limited	-	91	91
Lot 17		2.00	11-016	N. Regier	-	91	91
Pt. Lot 15		7.40	28-019	Ford Agra Ltd.	-	338	338
Pt. Lot 16		39.40	28-020-01	E. & J. Martene	-	1,797	1,797
Pt. Lot 17		39.60	28-021	H. Wagner	-	1,807	1,807
SB		Conc. 10 Lot 23 & Pt. Lot 18 & Lot 19	76.90	28-022	Van Raay Farms Ltd.	-	3,508
	E Pt. Lot 12	6.10	27-064	M. Muller	-	278	278
	Pt. Lot 12 & Pt. Lot 13	30.20	27-063	M. & D. Glavin	-	1,378	1,378
	W Pt. Lot 13 & Pt. Lot 14	59.90	27-062	Vanhie Farms Ltd.	-	2,733	2,733
	S Pt. Lot 15	20.00	27-060	L. Ryan	-	912	912
	N Pt. Lot 15	20.20	27-059	E. Glavin & T. Wammes-Glavin	-	922	922
	W 1/2 Lot 17	41.65	27-057	S. & J. Morrissey	-	1,900	1,900
	E 1/2 Lot 17	40.41	27-057-10	Van Osch Farms Limited	-	1,844	1,844
	Lot 18	40.20	27-056	MS Muller Farms Ltd	-	1,834	1,834
	S Pt. Lot 19	39.70	27-055	S. & T. Regier	-	1,811	1,811
	Lot 20 & Pt. Lot 21	52.30	27-054	P. & M. Hall	-	2,386	2,386
	W Pt. Lot 21	6.10	27-053	H. Ryan	-	278	278
					-	162,498	162,498
Total - Public Lands					15,009		
Total - Non-Agricultural Lands					5,251		
Total - Agricultural Lands					162,498		
Municipality of South Huron (Stephen Ward)					182,758		

Conc.	Lot or Part	Affected Hectares	Roll No.	Owner	Benefit	Outlet	Total
Municipality of Bluewater (Hay Ward)							
Public Lands							
	MacDonald Road	3.20		Township of Hay	-	583	583
	Babylon Line	1.20		Township of Hay	-	218	218
					-	801	801
Non-Agricultural Lands							
	South Pt. Lot 16 Boundary	0.55	19-023-02	G. Glenn	-	50	50
					-	50	50
Agricultural Lands							
9	Lot 3	32.40	09-035	1904633 Ontario Inc.	-	1,478	1,478
	Lot 4	32.40	09-034	822732 Ontario Inc.	-	1,478	1,478
	Lot 5	28.30	09-033	F. Hartman	-	1,291	1,291
	W Pt. Lot 6	10.10	09-032	2666002 Ontario Inc.	-	461	461
	Pt. Lot 6	0.70	09-029	M. Kester	-	32	32
10	Pt. Lot 3 & Pt. Lot 4	59.50	10-058	Sam Regier Farms Ltd.	-	2,714	2,714
	Pt. Lot 5	31.20	10-057	F. Hartman	-	1,423	1,423
	Pt. Lot 6	35.20	10-056	2666002 Ontario Inc.	-	1,606	1,606
	Pt. Lot 7	23.10	10-055	R. Regier	-	1,054	1,054
	Pt. Lot 8	8.10	10-054-05	N. Regier	-	370	370
SB	Pt. Lot 15	10.10	19-022	Ford Agra Ltd	-	461	461
	Pt. Lot 16	32.40	19-023	Ford Agra Ltd	-	1,478	1,478
	E Pt. Lot 17	20.10	19-024	G. Douglas	-	917	917
	W Pt. Lot 17	20.10	19-025	P. McFadden	-	917	917
	Pt. Lot 18	40.20	19-026	D. Bender	-	1,834	1,834
	Pt. Lot 19	10.10	19-027-05	Sam Regier Farms Ltd.	-	461	461
					-	17,975	17,975
Total - Public Lands					801		
Total - Non-Agricultural Lands					50		
Total Agricultural Lands					17,975		
Municipality of Bluewater (Hay Ward)					18,826		

Conc.	Lot or Part	Affected Hectares	Roll No.	Owner	Benefit	Outlet	Total
Municipality of North Middlesex							
Public Lands							
	Mount Carmel Drive (County Road #5)	6.10		County of Middlesex	-	1,112	1,112
	Adare Drive	10.50		Municipality of North Middlesex	-	1,915	1,915
	Mooreville Drive	1.60		Municipality of North Middlesex	-	291	291
	Cassidy Road	6.50		Municipality of North Middlesex	-	1,185	1,185
	Creamery Road	8.50		Municipality of North Middlesex	-	1,550	1,550
					-	6,053	6,053
Non-Agricultural Lands							
NB	Pt. Lot 14	0.20	000-030-049-02	M. Schefter	-	18	18
12	Pt. Lot 5	0.20	000-030-093-01	A. Tokarewicz & S. Pickering	-	18	18
13	Pt. Lot 6	0.20	000-030-102-02	R. Forrest	-	18	18
					-	54	54
Agricultural Lands							
NB	Lot 12	6.10	000-030-047	C. McCarthy	-	278	278
	E 3/4 Lot 13	28.30	000-030-048	H. Ryan	-	1,291	1,291
	W 1/4 Lot 13 & E 1/4 Lot 14	20.20	000-030-048-10	G. Vanhie	-	922	922
	Pt. Lot 14 & Pt. Lot 15	50.00	00-030-049	J. Stephan	-	2,281	2,281
	W Pt. Lot 15	20.20	00-030-050	L. Ryan	-	922	922
	Lot 16	40.50	000-030-096	C. Glavin	-	1,848	1,848
	Pt. Lot 17 & Pt. Lot 3 Conc 13	30.40	000-030-097	C. Glavin	-	1,387	1,387
	W Pt. Lot 17 & Lot 18	60.70	000-050-160	2729015 Ontario Ltd	-	2,769	2,769
	Lot 19	36.40	000-050-159	JVO Farms Ltd	-	1,661	1,661
	Lot 20	25.68	000-050-111-02	Van Osch Farms Limited	61,554	1,172	62,726
	Lot 21	5.93	000-050-111	J. Boland	-	271	271
	Pt. Lot 22	4.90	000-050-110	J A McCann and Sons Ltd	-	224	224
11	Lot 3	14.16	000-030-051	L. Ryan	-	646	646
	Lot 4	12.14	000-030-052	J A McCann and Sons Ltd	-	554	554
	Lot 5	14.16	000-030-053	Grace Farms Limited	-	646	646
	Lot 6 & Lot 7	30.35	000-030-054	G. Vanhie	-	1,385	1,385
	Lot 8	8.10	000-030-057	N. Lewis	-	370	370
12	Lot 3	40.50	000-030-095	R. Hodgins	-	1,848	1,848
	Lot 4	40.50	000-030-094	D. McCann	-	1,848	1,848
	Pt. Lot 5	40.30	000-030-093	D. Lewis	-	1,839	1,839
	Lot 6	40.50	000-030-092	G. Vanhie	-	1,848	1,848
	Lot 7	38.45	000-030-091	Cuillerier Farms Ltd	-	1,754	1,754
	N Pt. Lot 8	18.20	000-030-090	Cuillerier Farms Ltd	-	830	830
	S Pt. Lot 8 & Lot 9	30.35	000-030-089	J. Scott	-	1,385	1,385

Conc.	Lot or Part	Affected Hectares	Roll No.	Owner	Benefit	Outlet	Total
13	N Pt. Lot 3	11.00	000-030-099	T. Hodgins	-	502	502
	S Pt. Lot 3 & N Pt. Lot 4	39.30	000-030-100	T. Hodgins	-	1,793	1,793
	S Pt. Lot 4 & Lot 5	53.82	000-030-101	Van Osch Farms Limited	-	2,455	2,455
	Lot 6	32.17	000-030-102	Van Osch Farms Limited	-	1,468	1,468
	Lot 7	10.12	000-030-103	R. Scott	-	462	462
14	Lot 3	28.33	000-050-158	K & L Farms Ltd	-	1,292	1,292
	Lot 4	12.14	000-050-157	L. Van Osch	-	554	554
Total Area (Ha)		4,990.77			61,554	38,505	100,059
Total - Public Lands					6,053		
Total - Non-Agricultural Lands					54		
Total Agricultural Lands					100,059		
Total - Municipality of North Middlesex					106,166		
Total - Municipality of South Huron					182,758		
Total - Municipality of Bluewater					18,826		
Total Assessment					\$307,750		

Estimated Net Assessment
Net assessment subject to OMAFRA ADIP Policy and actual construction costs.

Conc.	Lot or Part	Affected Hectares	Roll No.	Owner	Total Assessment (\$)	Estimated Grant (\$)	Allowances (\$)	Estimated Net Assessment (\$)
Municipality of South Huron (Stephen Ward)								
Public Lands								
	Mount Carmel Drive (County Road #5)	6.10		County of Huron	1,112			1,112
	Crediton Road	12.70		County of Huron	2,317			2,317
	Dashwood Road	5.70		County of Huron	1,039			1,039
	Goshen Line	12.10		Municipality of South Huron	2,207			2,207
	Babylon Line	21.00		Municipality of South Huron	3,831			3,831
	Parr Line	1.20		Municipality of South Huron	218			218
	South Road	10.10		Municipality of South Huron	1,842			1,842
	Kirkton Road	8.50		Municipality of South Huron	1,550			1,550
	Huron Street	4.90		Municipality of South Huron	893			893
Non-Agricultural Lands								
6	Pt. Lot 8	1.20	07-007-10	R. & S. Ryan	109			
	N Pt. Lot 9	0.20	07-009	H. Julien & K. Monteith	18			18
	S Pt. Lot 9	2.00	07-008	B. Clarke	182			182
	N Pt. Lot 9	1.20	07-010	D. Thompson	109			109
7	Pt. Lot 10	0.10	30-109-15	B. Dixon	9			9
	Pt. Lot 10	0.10	30-109-10	A. Bosco	9			9
	Pt. Lot 10	0.10	30-109-05	S. & J. Morley	9			9
	Pt. Lot 10	0.10	30-109	M. & K. MacDonald	9			9
	Pt. Plan 212	1.23	30-112	B. Benoit & T. Hayter	112			112
	Pt. Plan 212	1.10	30-059	C. & A. Tripp	100			100
	Pt. Plan 212	0.20	30-060	M. Sherwood	18			18
	Pt. Plan 212	0.80	30-061	B. & J. Harrison	73			73
	Pt. Plan 212	0.80	30-062	V. Pooley	73			73
	Pt. Plan 212	2.40	30-063	Crediton Cemetery Board Trustees	219			219
	Pt. Plan 212	0.80	30-064	W. Michielsens	73			73
	Pt. Plan 212	0.50	30-064-01	A. Bierling & Z. Boyle	46			46
	Pt. Plan 212	0.30	30-064-10	W. Bierling	27			27
	Pt. Plan 212	0.80	30-064-15	R. Van Valkengoed	73			73
	Pt. Plan 212	0.80	30-064-20	J. & J. Owens	73			73
	Pt. Plan 212	0.80	30-064-25	C. & S. Schwartzentruber	73			73
	Pt. Plan 212	0.80	30-064-30	Z. & P. Wilson	73			73
	Pt. Plan 212	0.80	30-064-35	L. & V. Guillet	73			73

Conc.	Lot or Part	Affected Hectares	Roll No.	Owner	Total Assessment (\$)	Estimated Grant (\$)	Allowances (\$)	Estimated Net Assessment (\$)
	Pt. Plan 212	0.80	30-064-40	J. Brozic & M. Nadeau-Brozic	73			73
	Pt. Plan 212	0.80	30-064-45	D. & J. Helder	73			73
	Pt. Plan 212	2.40	30-064-95	South Huron Municipality	219			219
	Pt. Lot 12	0.27	07-014-10	R. & D. Haines	25			25
8	Pt. Lot 8	0.02	08-008	Methodist Church	2			2
	Pt. Lot 8	0.30	08-010	T. & C. Houston	27			27
	Pt. Lot 10	2.50	08-013	M. & B. Brand	228			228
	Pt. Lot 13	1.10	08-019	K. Schwartzentruber	100			100
	Pt. Lot 16	1.20	08-023-05	C.Eveland & V.Laye	109			109
	Pt. Lot 21	0.40	08-029	L.Genno	36			36
9	Pt. Lot 6	0.87	09-006-02	J. & K.Vanhie	79			79
	Pt. Lot 19	1.00	09-022-02	S. & S. Davies	91			91
10	Pt. Lot 11	10.10	10-011	Avon Maitland District School Board	691			691
	Pt. Lot 14	1.20	10-015-05	A. Glavin	109			109
	N Pt. Lot 15	20.20	10-016	G. & M. Pfaff	922			922
	Pt. Lot 17	1.20	10-019-01	B.Butson	109			109
	Pt. Lot 21	0.57	10-025-02	K. & S. Ford	52			52
11	Pt. Lot 9	0.20	11-006-01	C.Finlay, S. & W. McDonald	18			18
	Pt. Lot 9	0.20	11-006-03	D. Gale	18			18
	Pt. Lot 9	0.20	11-006-04	A. Bedard	18			18
	Pt. Lot 9	0.20	11-006-05	I. Poss & V. Francis-Poss	18			18
	Pt. Lot 9	0.40	11-006-06	C. Dale & J. Wiszniowski	36			36
	Pt. Lot 10	0.20	11-007-02	D. Regier	18			18
	Pt. Lot 11	0.10	11-009	W. Thomson & J.Edye	9			9
	Pt. Lot 14	0.30	11-013-05	2494986 Ontario Ltd.	27			27
	Pt. Lot 15	0.80	11-014-01	M.Hogarth	73			73
	Lot 16	2.40	11-015	D. Hartman	219			219
NB	Pt. Lot 16	0.80	28-020	P. & K. Dearing	73			73
	Pt. Lot 17	0.60	28-021-05	W. & H.Wagner	55			55
SB	Pt. Lot 14	0.40	27-061-05	M. & J. Schwindt	36			36
	Pt. Lot 14	0.50	27-061-50	Vanhie Farms Ltd & M.Vanhie	46			46
	Pt. Lot 16	0.50	27-058	R. & R. Harrigan	46			46
	S Pt. Lot 19	0.40	27-055-05	K. & M. Glavin	36			36

Agricultural Lands

7	Lot 3	30.40	07-001	MS Muller Farms Ltd	1,387	462		925
	Lot 4	34.40	07-002	J. & P. Glavin	1,569	523		1,046
	S Pt. Lot 5	6.50	07-003	M. & M. Thompson	297	99		198
	Pt. Lot 5	34.00	07-004	G&C Geurts Farms Ltd	1,551	517		1,034
	Lot 6	40.50	07-005	S.Lightfoot	1,848	616		1,232
	Lot 7	40.50	07-006	MS Muller Farms Ltd	1,848	616		1,232
	Pt. Lot 8 & Pt. Lot 9	58.70	07-007	JK Gielen Farms Inc & J.Gielen	2,678	893		1,785

Conc.	Lot or Part	Affected Hectares	Roll No.	Owner	Total Assessment (\$)	Estimated Grant (\$)	Allowances (\$)	Estimated Net Assessment (\$)
8	N Pt. Lot 9	13.00	07-011	S. & R. Pertschy	593	198		395
	Pt. Lot 10	33.90	07-012-01	J. Morrissey	1,547	516		1,031
	Pt. Lot 11 & Pt. Lot 12	54.20	07-014	Ron O'Brien Farms Ltd.	2,473	824		1,649
	Lot 13	38.50	07-015	H. & Y. Hendrick	1,756	585		1,171
	S Pt. Lot 14	19.80	07-016	S. & T. Finkbeiner	903	301		602
	N Pt. Lot 14	18.60	07-017	M. & E. Fluttert	849	283		566
	Pt. Lot 15	1.20	07-018	J.Forrest & E. DeWetering	55	18		37
	Pt. Lot 15	35.20	07-019	N. Vincent	1,606	535		1,071
	S Pt. Lot 16	17.80	07-021	P. McFadden	812	271		541
	N Pt. Lot 16	16.20	07-021-01	E. & M. Sorensen	739	246		493
	Lot 17	26.30	07-022	M. & A. Stephan	1,200	400		800
	Lot 18	12.10	07-023	M. & A. Stephan	552	184		368
	Lot 19	1.20	07-024	G. & K. Hendrick	55	18		37
	S Pt. Lot 3	20.20	08-001	E.Glavin & T. Wammes-Glavin	922	307		615
	N Pt. Lot 3	20.20	08-002	L. Ryan	922	307		615
	Lot 4	40.50	08-003	W. & M. Jeffrey	1,848	616		1,232
	Pt. Lot 5	1.40	08-004	E. & M. Sorensen	64	21		43
	Pt. Lot 5	39.10	08-004-05	MS Muller Farms Ltd	1,784	595		1,189
	Lot 6	40.50	08-005	J. & C. Vanhie	1,848	616		1,232
	S Pt. Lot 7	20.20	08-006	JK Gielen Farms Inc	922	307		615
	N Pt. Lot 7	20.20	08-007	D. & M. Lamport	922	307		615
	Pt. Lot 8	19.90	08-009	JK Gielen Farms Inc	908	303		605
	Pt. Lot 8	20.20	08-011	JK Gielen Farms Inc	922	307		615
	Pt. Lot 9	20.60	08-012	JK Gielen Farms Inc	940	313		627
	Pt. Lot 9 & Pt. Lot 10	57.10	08-014	J. Morrissey	2,605	868		1,737
	Lot 11 & Pt. Lot 12	50.10	08-016	G & L Gielen Farms Ltd	2,286	762		1,524
	N Pt. Lot 12	30.40	08-017	C. Mullin	1,387	462		925
	S Pt. Lot 13	20.20	08-018	1000338149 Ontario Limited	922	307		615
	Pt. Lot 13 & Pt. Lot 14	59.60	08-021	S. Finkbeiner	2,719	906		1,813
	Lot 15	40.50	08-022	K. Schwartz	1,848	616		1,232
	Pt. Lot 16	39.30	08-023	R.Yearley	1,793	598		1,195
	Pt. Lot 17	37.31	08-024	JK Gielen Farms Inc	1,702	567		1,135
	Pt. Lot 17	3.19	08-024-10	D.Finkbeiner	146	49		97
	Lot 18	40.50	08-025	J & N Morlock Ltd	1,848	616		1,232
	Lot 19 & Pt. Lot 20	59.10	08-026	R. & H. & M. Eisert	2,696	899		1,797
	E Pt. Lot 20	6.90	08-027	G & C Geurts Farms Ltd	315	105		210
	Pt. Lot 21	17.40	08-028	R. & H. & M. Eisert	794	265		529
	Lot 22	13.40	08-030	Rasenberg Investments Limited	611	204		407
	Lot 23	6.90	08-031	B.Martene & S.Baker	315	105		210
9	S Pt. Lot 3	27.00	09-001	L.Ryan	1,232	411		821
	Pt. Lot 3 & Pt. Lot 4	27.00	09-002	L.Ryan	1,232	411		821
	Pt. Lot 4	23.50	09-003	R.O'Brien	1,072	357		715
	Pt. Lot 4 & Pt. Lot 5	23.80	09-004	Ron O'Brien Farms Ltd.	1,086	362		724
	N Pt. Lot 5	20.20	09-005	R.O'Brien	922	307		615

Conc.	Lot or Part	Affected Hectares	Roll No.	Owner	Total Assessment (\$)	Estimated Grant (\$)	Allowances (\$)	Estimated Net Assessment (\$)
10	Pt. Lot 6	40.50	09-006	D. & M. Lamport	1,848	616		1,232
	Lot 7 & Pt. Lot 8	70.80	09-007	D. & M. Lamport	3,230	1,077		2,153
	E Pt. Lot 8	10.10	09-009	T.Mellin	461	154		307
	Lot 9	40.50	09-010	JK Gielen Farms Inc	1,848	616		1,232
	Lot 10	39.90	09-011	Ron O'Brien Farms Ltd.	1,820	607		1,213
	Pt. Lot 11	29.80	09-012	D. & D. Dietrich	1,360	453		907
	Pt. Lot 11	10.10	09-013	G. & L. Gielen	461	154		307
	Pt. Lot 12	15.40	09-013-15	G. Gielen	703	234		469
	Pt. Lot 12	8.10	09-014	S. & P. Schwab	370	123		247
	Pt. Lot 12 & Lot 13	57.50	09-015	1000338149 Ontario Limited	2,623	874		1,749
	S Pt. Lot 14	20.20	09-016	J.Reynen	922	307		615
	Pt. Lot 14 & Lot 15	40.50	09-017	K.Schwartz	1,848	616		1,232
	N Pt. Lot 15	20.20	09-018	K. & M. Schwartz	922	307		615
	Lot 16	40.50	09-019	Van Osch Farms Limited	1,848	616		1,232
	Lot 17	40.50	09-020	Van Osch Farms Limited	1,848	616		1,232
	Lot 18	40.50	09-021	Van Osch Farms Limited	1,848	616		1,232
	Pt. Lot 19 & Lot 20	80.90	09-022	Van Osch Farms Limited	3,691	1,230		2,461
	S Pt. Lot 21	20.20	09-024	Ford Agra Ltd	922	307		615
	Pt. Lot 21 & Lot 22	60.70	09-025	C. & R. Neeb	2,769	923		1,846
	Lot 23	40.50	09-026	E.Martene & 2554996 Ontario Inc	1,848	616		1,232
	S Pt. Lot 3	20.20	10-001	P. & M. Hall	922	307		615
	Pt. Lot 3 & Pt. Lot 4	20.80	10-002	Goshen Farms Inc	949	316		633
	Pt. Lot 4 & Pt. Lot 5	37.50	10-003	M.Ryan	1,711	570		1,141
	E Pt. Lot 5	20.20	10-004	D.Lamport	922	307		615
	E Pt. Lot 6	20.20	10-004-01	D. & M. Lamport	922	307		615
	Pt. Lot 6 & Lot 7	60.70	10-005	M.Ryan	2,769	923		1,846
	Lot 8	40.50	10-006	J. & K. Gielen & JK Gielen Farms Inc	1,848	616		1,232
	Lot 9	40.50	10-007	M.Ryan	1,848	616		1,232
	Plan 124 Lot 1 to 3 & E Pt. Lot 4	14.40	10-008	Ron O'Brien Farms Ltd.	657	219		438
	W Pt. Lot 10	25.60	10-010	N.Veri	1,168	389		779
	E Pt. Lot 11	8.50	10-009	D. & D. Dietrich	388	129		259
	Pt. Lot 11	11.60	10-010-01	M. & B. Dietrich	529	176		353
	Pt. Lot 11	10.70	10-012	D. & K. Smale	488	163		325
	Lot 12	35.60	10-013	1904633 Ontario Inc.	1,624	541		1,083
	Lot 13	37.20	10-014	M. & B. Dietrich	1,697	566		1,131
	Pt. Lot 14 & Pt. Lot 15	59.50	10-015	Exeter Produce & Storage Co Limited	2,714	905		1,809
	Lot 16	40.50	10-017	Norman Regier Farms Ltd & Draw Inc.	1,848	616		1,232
	Pt. Lot 17	39.30	10-019	2749873 Ontario Inc.	1,793	598		1,195
	Lot 18 & Pt. Lot 19	62.30	10-020	Norman Regier Farms Ltd & N.Regier	2,842	947		1,895
	Pt. Lot 19	8.10	10-022	Van Osch Farms Limited	370	123		247
	Pt. Lot 19 & Pt. Lot 20	27.50	10-023	D. Lamport	1,255	418		837
	W Pt. Lot 20	10.10	10-024	C. & R. Neeb	461	154		307
	Pt. Lot 21	30.40	10-025	Ford Agra Ltd & C. & D. Ford	1,387	462		925
	Pt. Lot 22	28.30	10-026	Sam Regier Farms Ltd & Norman Regier	1,291	430		861

Conc.	Lot or Part	Affected Hectares	Roll No.	Owner	Total Assessment (\$)	Estimated Grant (\$)	Allowances (\$)	Estimated Net Assessment (\$)
11	Pt. Lot 3	15.20	11-001	H. & D. Ryan	693	231		462
	Pt. Lot 3	19.20	11-001-05	Norman Regier Farms Ltd.	876	292		584
	Lot 4	38.90	11-002	Norman Regier Farms Ltd.	1,775	592		1,183
	Lot 5	39.30	11-003	F.Heeman & M. Ryan-Allen	1,793	598		1,195
	Lot 6	22.30	11-004-01	Goshen Farms Inc.	1,017	339		678
	Lot 7	18.20	11-004	Goshen Farms Inc.	830	277		553
	Lot 8	12.10	11-005	Eilers Farms (Ontario) Incorporated	552	184		368
	Pt. Lot 9	14.10	11-006	2749873 Ontario Inc.	643	214		429
	Pt. Lot 10	15.80	11-007	Norman Regier Farms Ltd & Draw Inc.	721	240		481
	Pt. Lot 11	4.10	11-010	2749876 Ontario Inc.	187	62		125
	Pt. Lot 14	1.30	11-013	J. & M. Veri	59	20		39
	Pt. Lot 14 & Pt. Lot 15	2.00	11-014	Exeter Produce & Storage Co Limited	91	30		61
	Lot 17	2.00	11-016	N. Regier	91	30		61
NB	Pt. Lot 15	7.40	28-019	Ford Agra Ltd.	338	113		225
	Pt. Lot 16	39.40	28-020-01	E. & J. Martene	1,797	599		1,198
	Pt. Lot 17	39.60	28-021	H. Wagner	1,807	602		1,205
	Conc. 10 Lot 23 & Pt. Lot 18 & Lot 19	76.90	28-022	Van Raay Farms Ltd.	3,508	1,169		2,339
SB	E Pt. Lot 12	6.10	27-064	M. Muller	278	93		185
	Pt. Lot 12 & Pt. Lot 13	30.20	27-063	M. & D. Glavin	1,378	459		919
	W Pt. Lot 13 & Pt. Lot 14	59.90	27-062	Vanhie Farms Ltd.	2,733	911		1,822
	S Pt. Lot 15	20.00	27-060	L. Ryan	912	304		608
	N Pt. Lot 15	20.20	27-059	E. Glavin & T. Wammes-Glavin	922	307		615
	W 1/2 Lot 17	41.65	27-057	S. & J. Morrissey	1,900	633		1,267
	E 1/2 Lot 17	40.41	27-057-10	Van Osch Farms Limited	1,844	615		1,229
	Lot 18	40.20	27-056	MS Muller Farms Ltd	1,834	611		1,223
	S Pt. Lot 19	39.70	27-055	S. & T. Regier	1,811	604		1,207
	Lot 20 & Pt. Lot 21	52.30	27-054	P. & M. Hall	2,386	795		1,591
	W Pt. Lot 21	6.10	27-053	H. Ryan	278	93		185

Municipality of Bluewater (Hay Ward)

Public Lands

MacDonald Road	3.20		Township of Hay	583		583
Babylon Line	1.20		Township of Hay	218		218

Non-Agricultural Lands

South Boundary	Pt. Lot 16	0.55	19-023-02	G. Glenn	50		50
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Conc.	Lot or Part	Affected Hectares	Roll No.	Owner	Total Assessment (\$)	Estimated Grant (\$)	Allowances (\$)	Estimated Net Assessment (\$)
Agricultural Lands								
9	Lot 3	32.40	09-035	1904633 Ontario Inc.	1,478	493		985
	Lot 4	32.40	09-034	822732 Ontario Inc.	1,478	493		985
	Lot 5	28.30	09-033	F. Hartman	1,291	430		861
	W Pt. Lot 6	10.10	09-032	2666002 Ontario Inc.	461	154		307
	Pt. Lot 6	0.70	09-029	M. Kester	32	11		21
10	Pt. Lot 3 & Pt. Lot 4	59.50	10-058	Sam Regier Farms Ltd.	2,714	905		1,809
	Pt. Lot 5	31.20	10-057	F. Hartman	1,423	474		949
	Pt. Lot 6	35.20	10-056	2666002 Ontario Inc.	1,606	535		1,071
	Pt. Lot 7	23.10	10-055	R. Regier	1,054	351		703
	Pt. Lot 8	8.10	10-054-05	N. Regier	370	123		247
SB	Pt. Lot 15	10.10	19-022	Ford Agra Ltd	461	154		307
	Pt. Lot 16	32.40	19-023	Ford Agra Ltd	1,478	493		985
	E Pt. Lot 17	20.10	19-024	G. Douglas	917	306		611
	W Pt. Lot 17	20.10	19-025	P. McFadden	917	306		611
	Pt. Lot 18	40.20	19-026	D. Bender	1,834	611		1,223
	Pt. Lot 19	10.10	19-027-05	Sam Regier Farms Ltd.	461	154		307

Municipality of North Middlesex

Public Lands

Mount Carmel Drive (County Road #5)	6.10	County of Middlesex	1,112	1,112
Adare Drive	10.50	Municipality of North Middlesex	1,915	1,915
Mooresville Drive	1.60	Municipality of North Middlesex	291	291
Cassidy Road	6.50	Municipality of North Middlesex	1,185	1,185
Creamery Road	8.50	Municipality of North Middlesex	1,550	1,550

Conc.	Lot or Part	Affected Hectares	Roll No.	Owner	Total Assessment (\$)	Estimated Grant (\$)	Allowances (\$)	Estimated Net Assessment (\$)
Non-Agricultural Lands								
NB	Pt. Lot 14	0.20	000-030-049-02	M. Schefter	18			18
12	Pt. Lot 5	0.20	000-030-093-01	A. Tokarewicz & S. Pickering	18			18
13	Pt. Lot 6	0.20	000-030-102-02	R. Forrest	18			18
Agricultural Lands								
NB	Lot 12	6.10	000-030-047	C. McCarthy	278	93		185
	E 3/4 Lot 13	28.30	000-030-048	H. Ryan	1,291	430		861
	W 1/4 Lot 13 & E 1/4 Lot 14	20.20	000-030-048-10	G. Vanhie	922	307		615
	Pt. Lot 14 & Pt. Lot 15	50.00	00-030-049	J. Stephan	2,281	760		1,521
	W Pt. Lot 15	20.20	00-030-050	L. Ryan	922	307		615
	Lot 16	40.50	000-030-096	C. Glavin	1,848	616		1,232
	Pt. Lot 17 & Pt. Lot 3 Conc 13	30.40	000-030-097	C. Glavin	1,387	462		925
	W Pt. Lot 17 & Lot 18	60.70	000-050-160	2729015 Ontario Ltd	2,769	923		1,846
	Lot 19	36.40	000-050-159	JVO Farms Ltd	1,661	554		1,107
	Lot 20	25.68	000-050-111-02	Van Osch Farms Limited	62,726	20,909	300	41,517
	Lot 21	5.93	000-050-111	J. Boland	271	90		181
	Pt. Lot 22	4.90	000-050-110	J A McCann and Sons Ltd	224	75		149
11	Lot 3	14.16	000-030-051	L. Ryan	646	215		431
	Lot 4	12.14	000-030-052	J A McCann and Sons Ltd	554	185		369
	Lot 5	14.16	000-030-053	Grace Farms Limited	646	215		431
	Lot 6 & Lot 7	30.35	000-030-054	G. Vanhie	1,385	462		923
	Lot 8	8.10	000-030-057	N. Lewis	370	123		247
12	Lot 3	40.50	000-030-095	R. Hodgins	1,848	616		1,232
	Lot 4	40.50	000-030-094	D. McCann	1,848	616		1,232
	Pt. Lot 5	40.30	000-030-093	D. Lewis	1,839	613		1,226
	Lot 6	40.50	000-030-092	G. Vanhie	1,848	616		1,232
	Lot 7	38.45	000-030-091	Cuillerier Farms Ltd	1,754	585		1,169
	N Pt. Lot 8	18.20	000-030-090	Cuillerier Farms Ltd	830	277		553
	S Pt. Lot 8 & Lot 9	30.35	000-030-089	J. Scott	1,385	462		923
13	N Pt. Lot 3	11.00	000-030-099	T. Hodgins	502	167		335
	S Pt. Lot 3 & N Pt. Lot 4	39.30	000-030-100	T. Hodgins	1,793	598		1,195
	S Pt. Lot 4 & Lot 5	53.82	000-030-101	Van Osch Farms Limited	2,455	818		1,637
	Lot 6	32.17	000-030-102	Van Osch Farms Limited	1,468	489		979
	Lot 7	10.12	000-030-103	R. Scott	462	154		308
14	Lot 3	28.33	000-050-158	K & L Farms Ltd	1,292	431		861
	Lot 4	12.14	000-050-157	L. Van Osch	554	185		369
					307,750	93,504	300	213,837

Mud Creek (2026)
Municipality of North Middlesex
September 10, 2026

SPECIFICATION OF WORK

1. Location

The work in this specification is located in Lot 20, North Boundary in The Municipality of North Middlesex.

2. Scope of Work

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

- Concrete Box Culvert Installation

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 and Engineer who may vary these specifications as to minor details but in no way decrease the proposed capacity of the drain.

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. Utilities

The Contractor is responsible for organizing locates and exposing all the utilities along the length of the drainage works. The utilities shall be located prior to the installation of any tile. If any utilities interfere with the proposed drainage works in a manner not shown on the accompanying Estimate of Cost or profile the Contractor shall notify the Drainage Superintendent and Engineer.

The Contractor is responsible for coordinating the replacement of additional utilities with the utility company if they interfere with the proposed drain. All costs for the utility to replace their services will be outside of this report and shall be borne by the utility as per Section 26 of the Drainage Act.

All additional costs to work around and organize replacement of the utilities not included in the estimate shall be tracked separately and the cost plus a portion of the engineering (20% of the cost) shall be borne by that utility.

7. 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. The Traffic Plan must be approved by the Municipality and County prior to the commencement of any road closures.

- 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.
- d) If work is being completed on a Road and or Road Allowance in North Middlesex, the Contractor is required to complete a Road Allowance Work Permit Application available on their website: <https://www.northmiddlesex.on.ca/media/591>. No fees are required.

8. 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 Landowner, Engineer, and the Municipality of North Middlesex shall be notified of the pre-construction meeting at least 48 hours prior.

9. Access and Working Area

Access to the work site for construction shall be from Creamery Road. Access shall be restricted to a width of 15m. The working area at the culvert shall extend 20 metres from the bank on both sides and for 10 metres along the channel on either side of the culvert.

10. Benchmarks

Prior to construction, R. Dobbin Engineering will provide the Contractor with multiple benchmarks.

11. Removals (Future)

Future culverts, and unsuitable excavated material shall be removed in their entirety and shall be disposed offsite at the expense of the Contractor.

12. Brushing and Tree Removal

For construction and future maintenance all brush, trees, woody vegetation, stumps etc. shall be removed within the channel cross-section and within the working area in order to facilitate construction as determined by the Drainage Superintendent or Engineer.

A mechanical grinder attached to an excavator shall 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 discretion of the Drainage Superintendent or Engineer.

13. Strip and Spread Topsoil for Entrance off Creamery Road

The topsoil shall be stripped along the proposed access route for a width of 10m. The topsoil shall be placed at the limit of the working area and levelled once construction is completed.

14. Installation of Culvert

It is the Contractors responsibility to ensure that the minimum covers are met at the completion of construction. The box culvert shall have a minimum earth cover of 600mm at the completion of construction. The concrete box culvert shall be precast and shall be installed as per OPSS 422. The contractor shall submit shop drawings to the engineer prior to ordering. In the event of a conflict between these specifications and those of the structural designer, the more stringent shall apply. The joints between precast sections shall have connection plates, butyl tape and shall be wrapped with a minimum 600mm width of geotextile to prevent the migration of soil between the joints. Connection plates shall be installed at the joint of each box culvert. The plates shall be 25mm thick on the top slab and 19mm thick on the side walls. The plates shall be placed at an 800mm spacing. The plates and any holes shall be sealed with CS 102 sealant tape, Sikaflex concrete fix sealant or approved equivalent.

The culvert shall be installed with the invert 10% (minimum 150mm) below the original channel bottom elevation unless otherwise shown in order to achieve the minimum cover.

The pipes that shall be extended upstream or downstream of the proposed culvert shall be done with non-perforated HDPE agricultural tubing with a manufactured coupling, elbow and rodent grate.

The bottom of the excavation shall be excavated to a minimum of 200mm below the bottom of the proposed culvert. From the bottom of the excavation to the bottom of the proposed box culvert the Contractor shall backfill with ¾" clear stone, this shall be considered bedding. From the bottom of the box culvert to within 150mm of finished grade the pipe shall be backfilled with granular "B" Type II. The top 150mm shall be backfilled with compacted granular "A" material to finished grade.

End walls shall be constructed of interlocking concrete blocks as supplied by Underground Specialties and as shown on the attached drawings using 600 mm wide x 600 mm high x 1200 mm long blocks. Where required, the contractor shall make use of half blocks 600 mm x 600 mm x 600 mm. Both concrete blocks shall be paid at the same unit price. The concrete block end walls shall be set vertically. Each layer of blocks for each end wall shall be tied back with uniaxial high strength geogrid (EarthGrid 30) minimum 3.0 m long within reinforcement zone backfilled with granular 'B' Type II. The concrete block end walls shall be keyed into the existing drain banks. All void space between the culvert and the concrete blocks shall be filled with concrete minimum 30 MPa compressive strength. The top row of concrete blocks shall be finishing blocks.

Other styles and sizes of concrete blocks may be considered for the construction of the end walls. If the Contractor wishes to use concrete blocks that vary from the style or size specified, they shall submit the manufacturers block Specifications and an intended block layout plan to the Engineer prior to commencing construction. Any additional costs incurred from the use of alternative blocks shall be the Contractors responsibility.

The row of concrete blocks that will sit on the top of the box culvert shall be secured to the box culvert using 20mm epoxy rebar drilled into the blocks and the culvert a minimum of 150mm.

The bottom of the concrete box culvert shall be filled to the channel grade line with excavated material. The excavated material shall be placed to form a v-shaped cross-section in the center of the box culvert.

15. Seeding/Restoration

All areas disturbed by construction shall be restored to their pre-construction state.

All grass areas disturbed by construction, shall be restored with 50mm of screened topsoil and seeded. The side slopes of the open channel shall be restored with double straw matting and seed. The timing of the seeding shall be approved by the Drainage Superintendent or Engineer.

16. Rip Rap

Erosion protection made up of rip rap and filter fabric shall be installed adjacent the concrete block end walls from top of bank to the toe of slope on all sides. The rip rap shall extend a minimum of 0.50m from the end walls. The rip rap shall be extended on the side slope downstream and upstream of the culvert at the discretion of the Engineer.

All rip rap shall consist of 150mm x 300mm quarry stone or approved equal. The area to receive the rip rap shall be graded to a depth of 400mm below finished grade. After grading, a layer of filter fabric (Terrafix 270 R 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.

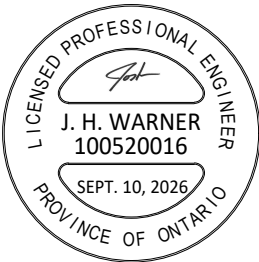
17. Environmental Considerations

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

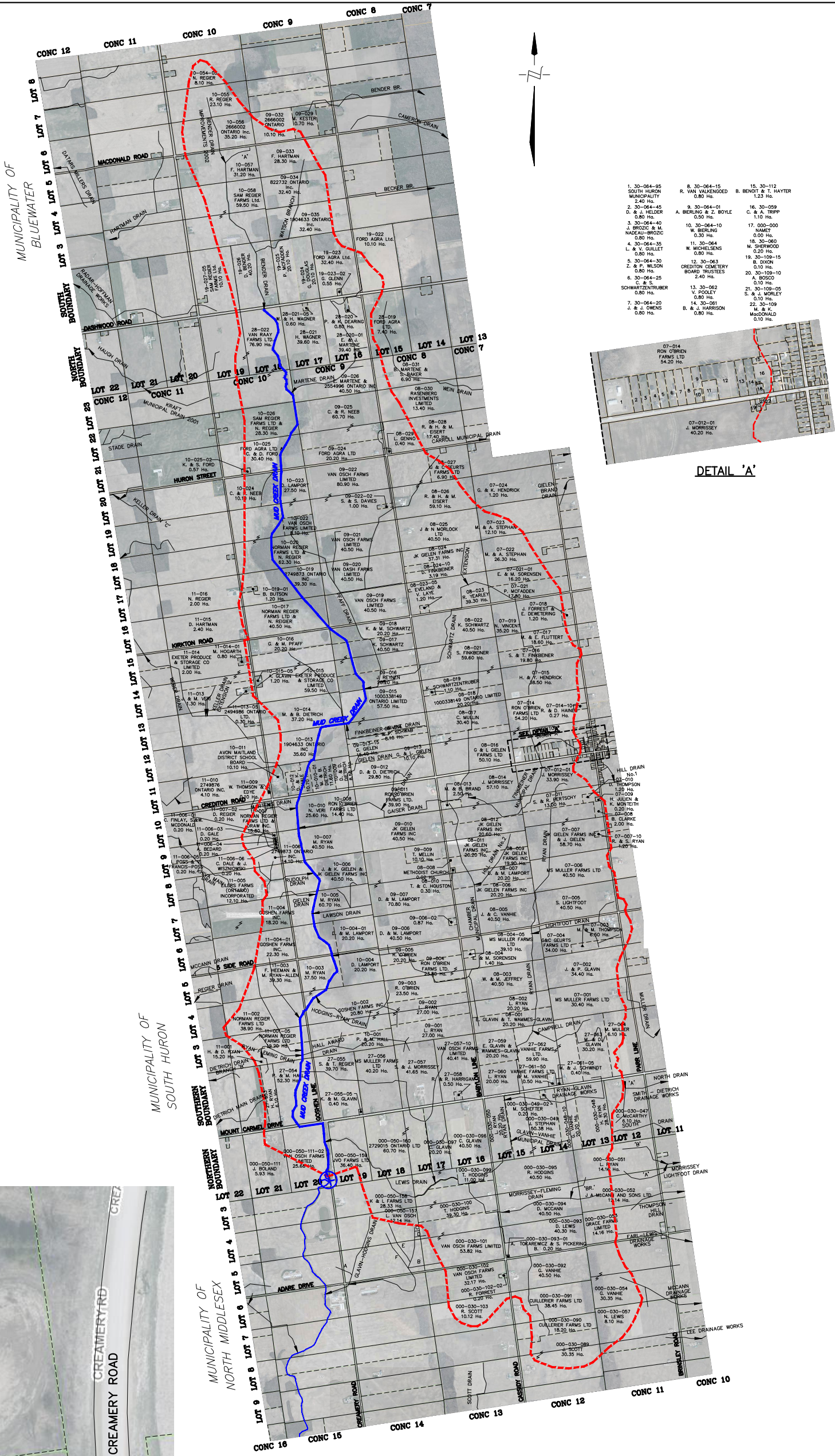
- Operate machinery in a manner that minimizes disturbance to the banks of the watercourse.
- Erosion and sediment control measures must be installed prior to construction to prevent sediment from entering the water body.
- Material shall not be in areas regulated by the Conservation Authority or Ministry 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.

A light duty silt fencing shall be installed down-gradient of the work for the duration of construction.

The light duty silt fencing shall be supplied and installed in accordance with OPSS 577 and OPSD 219.110. The light duty silt fencing shall be removed once construction is complete.



CONCRETE BOX CULVERT
DETAIL PLAN
NTS



- LEGEND**
- DRAINAGE AREA
 - SUB DRAINAGE AREA
 - MUD CREEK DRAIN
 - MUNICIPAL DRAIN
 - ⊗ CULVERT TO BE INSTALLED

FULL SIZE IS "D" SIZE
24x36 @ 1:25,000 SCALE

R Dobbin
Engineering Inc.

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

DRAWING NAME:
Mud Creek Drain Plan

PROJECT No.
2024-1702

APPROVED	NO.	REVISIONS	DATE	BY
J. WARNER				
CHECKED	1	RECONSIDERED REPORT	SEPT. 10, 2026	CS
B. VAN RUITENBURG				
DRAWN				
C. SAUNDERS				

SCALE: 1:20,000
0 200 400 600 800m

MUNICIPALITY of NORTH MIDDLESEX

MUD CREEK DRAIN PLAN

1
OF 2

