



**TOWN OF AMHERSTBURG
DRAINAGE BOARD MEETING
MINUTES**

**Tuesday, February 25, 2025
6:00 PM
Council Chambers
271 Sandwich Street South, Amherstburg, ON, N9V 2A5**

PRESENT	Anthony Campigotto - Chair Allan Major - Vice Chair Brad Laramie Brian Renaud Murray Sellars
STAFF PRESENT	Sam Paglia - Drainage Superintendent/Engineering Coordinator Nicole Humber - Recording Secretary Kevin Fox – Municipal Clerk (<i>Electronic Participant</i>)

1. CALL TO ORDER

The Chair called the meeting to order at 6:00 p.m.

2. ROLL CALL

3. DISCLOSURE OF PECUNIARY INTEREST & GENERAL NATURE THEREOF

There were no disclosures noted.

4. LAND ACKNOWLEDGEMENT

The Chair read the following land acknowledgement, “We will begin by acknowledging that the land on which we gather is the traditional territory of the Three Fires Confederacy of First Nations (comprising the Ojibway, the Odawa, and the Potawatomie Peoples), and of the Huron-Wendat and Wyandot Peoples. We recognize the land as an expression of gratitude to those whose traditional territory we reside on, and a way of honouring the Indigenous people who have been living and thriving on the land since time immemorial. We value the significant historical and contemporary contributions of local and regional First Nations and all of the Original Peoples of Turtle Island.”

5. MINUTES OF PREVIOUS MEETING

5.1 Drainage Board Meeting Minutes of February 4, 2025

Moved by B. Renaud

Seconded by M. Sellars

That the Drainage Board Meeting minutes of February 4, 2025 **BE APPROVED**.

The Chair put the motion.

Motion Carried

6. OPEN COURT OF REVISION

The Court of Revision opened at 6:03 p.m.

6.1 Appeals - 4th Concession Road Drain

Moved by B. Laramie

Seconded by A. Major

That:

1. The appeals submitted written or verbally to the Court of Revision for the 4th Concession Road Drain report **BE RECEIVED**; and
2. The Drainage Board **DIRECT** the engineer to modify the Schedule of Assessment dated November 13, 2024, to increase the Town’s assessment for the road in the amount of \$2800, and decrease the assessments for the remaining landowners by prorating the amounts by a total of \$2800.

The Chair put the motion.

Motion Carried

6.2 Appeals - Pike Road Drain East

Moved by B. Renaud

Seconded by M. Sellars

That the schedule of assessment dated November 21, 2024 as presented by R. Dobbin Engineering Inc. for the Pike Road Drain East **BE APPROVED**.

The Chair put the motion.

Motion Carried

6.3 Appeals - Rebidoux Drain

Moved by A. Major

Seconded by M. Sellars

That the schedule of assessment dated December 5, 2024 as presented by R. Dobbin Engineering Inc. for the Rebidoux Drain **BE APPROVED**.

The Chair put the motion.

Motion Carried

7. CLOSE COURT OF REVISION

The Court of Revision closed at 6:21 p.m.

8. CONSIDERATION OF THE FINAL DRAINAGE REPORT

8.1 Sam Paquette Drain - Improvements to the Branch Drain & Subsequent Connection for Northside Recycle

Moved by M. Sellars

Seconded by B. Renaud

That:

1. The engineer's report, prepared by Rood Engineering Inc. dated January 16, 2025 for improvements to the Sam Paquette Drain for Northside Recycle Inc. **BE RECEIVED**;

2. The engineer's report for the improvements to the Sam Paquette Drain for Northside Recycle Inc. **BE CONSIDERED**;
3. The **PROVISIONAL ADOPTION** of By-law 2025-018 which appends the engineer's report for improvements to the Branch Drain and Subsequent Connection to the Sam Paquette Drain for Northside Recycle Inc. **BE BROUGHT** to the next Regular Council meeting for Council's consideration; and,
4. Administration **BE DIRECTED** to proceed with the scheduling of the Public Meeting of the Court of Revision for improvements to the Sam Paquette Drain for Northside Recycle Inc.

The Chair put the motion.

Motion Carried

9. NEW BUSINESS

9.1 McLean Drain - Town of Essex

Moved by A. Major

Seconded by M. Sellars

That:

1. The Town of Essex Notice to the Tribunal Information package to update the assessment schedule for the McLean Drain under Section 76(1) **BE RECEIVED**,
2. The Drainage Board recommend that Council **SUPPORT** the Town of Essex's request under Section 76(1) of the Drainage Act to appoint Peralta Engineering for the variation of assessment on the McLean Drain.

The Chair put the motion.

Motion Carried

9.2 Engineering Appointment - 3rd Concession N

Moved by M. Sellars

Seconded by A. Major

That:

1. The report from the Drainage Superintendent and Engineering Coordinator dated February 3, 2025 regarding the Section 4 Petition by Road Authority - Engineering Appointment **BE RECEIVED**;
2. The Drainage Board recommend that Council **ACCEPT** the request from the Road Authority(s) on the requirement for drainage on Concession 3 N under Section 4 of the Drainage Act; and
3. The Drainage Board recommend the appointment of Josh Warner, P.Eng of R. Dobbin Engineering Inc. under Section 4 of the Drainage Act for the examination and report on the Concession 3 N drainage scheme be **APPROVED** by Council.

The Chair put the motion.

Motion Carried

9.3 Drainage Apportionments

Moved by B. Renaud

Seconded by A. Major

That:

1. The report from the Drainage Superintendent and Engineering Coordinator dated February 10, 2024, regarding various drainage apportionments **BE RECEIVED**;
2. The drainage apportionments **BE APPROVED** as listed:
 - a. Consent **B/32/22, B/15-17-24 and B/22/24** drainage apportionments for various Municipal Drains.
3. Administration **BRING FORWARD** the Drainage Board's recommendation to approve the drainage apportionments at a future Regular Council Meeting.

The Chair put the motion.

Motion Carried

10. ADJOURNMENT

Moved by B. Renaud

Seconded by M. Sellars

That the Drainage Board **ADJOURN** at 6:54 p.m.

The Chair put the motion.

Motion Carried

Anthony Campigotto - Chair

Sam Paglia - Staff Liaison

SAM PAQUETTE DRAIN

Branch Drain & Subsequent Connection **For Northside Recycle Inc.**

(Geographic Township of Anderdon)

(E09-2022-012)



Town of Amherstburg

271 Sandwich Street South
Amherstburg, Ontario N9V 2A5
519-736-0012

Rood Engineering Inc.

Consulting Engineers

9 Nelson Street

Leamington, Ontario N8H 1G6

519-322-1621

Project REI2022D013

2025-01-16

January 16th, 2025

Mayor and Town Council
Corporation of the Town of Amherstburg
271 Sandwich Street South
Amherstburg, Ontario
N9V 2A5

Mayor Prue and Members of Council:

**SAM PAQUETTE DRAIN & BRANCH
and Subsequent Connection (E09-2022-012)
(Geographic Twp. of Anderdon)
Project REI2022D013
Town of Amherstburg, County of Essex**

I. INTRODUCTION

In accordance with the instructions received and confirmed by letter dated July 12th, 2022, from your former Drainage Superintendent and Engineering Coordinator, Shane McVitty, P.Eng. for a Section 65 Subsequent Connection report and the April 25th, 2023 report from current Drainage Superintendent and Engineering Coordinator, Sam Paglia, P.Eng. for a Section 78 report for the Branch Drain, we have prepared the following report that provides for the subsequent connection and Branch Drain to serve the Northside Recycle Inc parcel. Details for a Section 65 subsequent connection procedure are set out from the Drainage Act in **Appendix “REI-D”**. The Sam Paquette Drain extends from its outlet in the Shuell Creek at Lot 11, Concession 8, in a southerly direction along the east side of Concession Road 8, under North Sideroad to approximately the midpoint of Lot 10, Concession 8 and extends easterly to its upper end near Walker Road (County Road 11). A plan showing the Sam Paquette Drain and the proposed Branch Drain to connect lands from the west side of Concession Road 8 in Lot 11, Concession 7 to the drain, its approximate watershed, as well as the general location of the bridge enclosure along the drain, is included herein as part of the report.

Our appointment and the works relative to the repair and improvement of the Sam Paquette Drain and Branch Drain, proposed under this report, is in accordance with Sections 65 and 78 of the “Drainage Act, R.S.O. 1990, Chapter D.17, as amended 2021”. We have performed all of the necessary survey, investigations, etcetera, for the proposed Branch Drain and subsequent connection and drain improvements, and we report thereon as follows.

II. BACKGROUND

From our review of the Municipality's drainage files, we have determined that the Drain was last worked on under an Engineer's Report dated March 12th, 2019, prepared by Gerard Rood, P.Eng. that included bridge works and an updated maintenance schedule of assessment. The Drain was repaired and improved under the March 1982 report by D.A. Averill, P.Eng. The improvements included in said report consisted of drain excavation, brushing and grubbing, and bridge improvements along with ancillary work.

We have utilized the plan and profile within the Averill report to establish the size parameters for the drain and the details to be used in establishing the Branch Drain and road bridge installation. We have also used this Engineer's report to establish the drain profile grades, and to assist us in establishing the design grade for the subject road bridge installation. The Rood report was also used to establish the upstream watershed limits for use in verifying the downstream bridge size and drain capacity.

III. PRELIMINARY EXAMINATION AND ON-SITE MEETING

After reviewing all of the drainage information provided by the Town, we arranged with the Drainage Superintendent, Sam Paglia, to schedule an on-site meeting for June 11th, 2024. The following people were in attendance at said meeting: Karen Cedar, Mark Fishleigh (County), Larry Bergeron, Barry Kenshol, Dennis & Diane Toth, Ed Drouillard (for Marguerite Drouillard), Tom Renaud, Mark Polewski, Jodi DiGiovanni, Sam Paglia (Drainage Superintendent) and Gerard Rood (Rood Engineering). Mr. Paglia provided an introduction and all the background information for the project and the proposed works. He noted that the Town had received a request from Northside Recycle for the subsequent connection through the proposed Branch Drain and roadway crossing culvert. The drain has been deepened and improved in the past. Mr. Rood told the owners that the processing of the report could take a few months, and the construction timing window would be after July 15th.

Mr. Rood advised that the Branch Drain and access bridge portion costs are all to be borne by the parcel requesting the new outlet. Mr. Paglia advised that the Planning Department will need to approve the stormwater management (S.W.M.) for the Northside Recycle site. Any owner can apply for a legal outlet, and it has to unobstructed flow. The Section 65 report that is being done will need Council approval which provides the right to unobstructed flows under Statute Law. There will be a buy in cost and two drain schedules will be altered. Mr. Rood explained the Shuell Creek Drain as the outlet to be used and not continue through the Tremblay Drain. An owner mentioned concerns with water backups in the Sam Paquette Drain along Road 8. Mr. Paglia explained the need for Council approval for the project to proceed and how the Section 78 report would be done. The developer pays all the costs for the project now and then future maintenance costs to the drain will be shared by more lands. There will be a Consideration meeting to discuss the work scope and then a provisional by-law is prepared. Then there will be a Court of Revision meeting to discuss assessments and owners will have an appeal right on the future maintenance

share. The proposed development site is only partially assessed to the Tremblay Drain and the rest is to the Shuell Creek. Mr. Rood and the Essex Region Conservation Authority (E.R.C.A.) will analyze the work for any impact concerns or adverse consequences. The discharge rate will be restricted to predevelopment flows or lower rate.

Owners expressed concerns with drain capacity. Mr. Paglia advised that the drain may have to be improved. Mr. Rood can recommend that the Shuell Creek Drain be cleaned out. There has been recent maintenance on the Sam Paquette Drain so it should be functional, but the Shuell Creek Drain may hold back water and need work done to it. The Shuell Creek Drain work is assessed to all lands and roads that drain into it. An owner agreed that the Shuell Creek Drain flows hold back water in the Sam Paquette Drain. Mr. Rood explained that drains are designed for 1:2 year storm capacity and bad storms now create more problems. Mr. Paglia noted that they could consider increasing capacity, but all cost would be to the owners for more than the 1:2 year capacity. All the Town requires is a request for maintenance on a Municipal Drain and Council has to proceed in accordance with the Drainage Act. The Town has to repair and maintain drains. Anyone can request cleaning of a drain, and all owners pay their share of costs.

The Development timeline is expected to be 1 to 2 years to proceed, and they expect the drain work to take approximately 1 year. There is a form for making a maintenance request and the Town proceeds under Section 74 of the Drainage Act for drain maintenance. Mr. Rood noted that they may have to upgrade the Sam Paquette Drain from the proposed connection downstream to its outlet into the Shuell Creek Drain. Mr. Paglia advised that all the cost would be to the developers.

An owner had question on the neighboring parcels to the Development. Mr. Paglia explained the planning process for development approval with adjacent owners being notified of the works. They can abandon the proposed drain if there is no planning approval. A lady owner mentioned that she had gone to a public meeting and there is only going to be soil and liquid soil handling on the Development site. Mr. Paglia recommended that the owners should participate in the planning meetings if they have concerns. This project is just for the drainage work and not addressing any septic matters. There are no septic connections allowed to Municipal drains.

An owner asked about the retention pond and low flows. Mr. Paglia noted that the discharge will be restricted to the predevelopment flows from the site. The pond retains bigger storms. An owner asked who monitors the pond and Mr. Paglia advised that the pond is a private system that the owner has to monitor. There are some S.W.M. ponds that are taken over as part of a Municipal drain and they can ask the engineer to include the pond in the Branch Drain. All pond maintenance cost is typically assessed to the owner needing the pond. He expects the developer to pay for everything. There will be no still water in the pond. The owners are invited to planning meetings for their input on the project. All owners can call the Planning Department. He reminded them that this meeting is just for the drainage. The success of the petition may be questionable. Mr. Paglia asked about a preliminary report and Mr. Rood responded that this has never been seen for this type of project. Mr. Paglia stated that owners can call the Planning Department for legal outlet information. A lady owner expressed that privacy concerns may limit

the information available. Mr. Paglia will check with the Planning Department and ask about information access. The meeting minutes will be in the drainage report. Owners can contact Mr. Paglia or Mr. Rood with questions. Questions typically go to the Drainage Board when the report is considered. The report can be sent back to the engineer for reconsideration. An owner can go to Council if they are concerned with the report. A second option and other options can be considered. The Drainage Act allows for a cost-effective outlet to the sufficient outlet that all drainage needs to meet. In their email E.R.C.A. advised that they require confirmation that the drain can accommodate the additional proposed flows and that the works will have no negative impacts upstream or downstream for all events up to the 100-year event and that the proposed works do not adversely impact the level of service of the drain. Flows in the Shuell Creek cannot rise more than 1 centimetre.

The DiGiovanni owner has basement flooding from farms to the south and west of their lot on the west side of Road 8. Mr. Paglia explained hydraulics and drainage from fields. Soil hydrology was explained. Sump pumps can be important and sometimes they need to be checked to avoid problems.

A lady asked about protection of endangered species. Mr. Paglia responded that all drains are registered. The drainage report will include mitigation requirements. This Class F drain is not as critical as others. The project work still has to watch for species and the Contractor has to handle and manage them. The lady mentioned that she wants the Eastern Foxsnake protected. Mr. Paglia explained the online mapping research that can be done, and a biologist can be hired to assess a drain if needed.

A gentleman asked about odour concerns. Mr. Paglia advised that this would be addressed under the planning act process. The planners should consider contaminated soils and there will be regulations in place for the owner. Those questions can be taken to the Planning Department. A lady asked about the larger storm events and if there was any planning for farmland storage. Mr. Paglia replied that they have been working on it. They can add a feature under the Drainage Act report. There are no tax breaks for this. There are several things done for S.W.M. There will be climate change considerations but there are limited records available. Today's regulations adopt climate change needs.

He noted that the Tremblay Drain on the south side of the North Sideroad goes west to Howard Avenue and then north to its outlet in Shuell Creek. He explained new culvert costs to an owner and that future maintenance is shared to upstream lands and roads. The cost depends on the culvert size. There is a separate form for applying for a new bridge. A lady had a question on just cleaning the Tremblay Drain. Mr. Paglia responded that he holds a meeting with owners for input on the maintenance work. Maintenance work is usually good for approximately 20 years. The cost sharing is per the past drainage reports using the same ratio in the assessment schedule. A gentleman stated that the Tremblay Drain doesn't send all flows westerly and it needs maintenance to avoid negative impacts to the Sam Paquette Drain. Mr. Paglia explained the watersheds in old drainage reports. He advised that there may be some Planning Department input, or they may consider a public information centre (P.I.C.) meeting. If E.R.C.A. approves the

works, there should be no problem with approving the drainage project. The Town checks drain in big storms and the Town only proceeds with work when a request is received. They have to analyze hydraulics and satisfy E.R.C.A. Mr. Rood explained S.W.M. storage benefits and there will only be the 1:2 year outlet flow permitted. All other flow has to be temporarily stored.

Mr. Paglia advised that more comments can be made when the report is out. Adoption of the report is after all appeals have been satisfied. They can do a P.I.C. (Public Information Centre) report and meeting with the owners if needed. Then the report gets finished, and it goes to Council. Extra cost goes to the Developer. A Section 78 report goes to all owners affected. A Section 65 report only goes out after adoption of the report.

Copies of the initial drainage report and notice for a P.I.C. meeting was sent out and held on January 9th, 2025 at Town Council Chambers. Four landowners were present for the meeting along with Drainage Superintendent Sam Paglia, Nicole Humber from administration, and engineer Gerard Rood. Mr. Paglia and Mr. Rood presented a summary of the report details. Owners had some minor questions on the details and impacts to the drainage system from the proposed works. It was explained that the Northside Recycling site will have outflow restricted to the 1:2 year predevelopment flow rate for all storm events and avoid adverse impacts to the system and upstream and downstream areas during the bigger storm events. Mr. Paglia noted that all municipal drains across the province are designed for the minimum 1:2 year storm capacity based on the design guidelines that have been in place with the Drainage Act for all the years. The S.W.M. (storm water management) system was described including the grassed outflow swale that provide for water quality improvement before outletting to the drainage system. The simple installation of the pipe outlet under Concession Road 8 will have minimal effects on the west bank of the Sam Paquette Drain and the drainage report appendices provide for protection and mitigation steps to be followed for the natural conditions and restoration.

The owners brought up high water level concerns experienced a few weeks ago during a rainstorm and mentioned again the water level concerns that had been brought up during the on-site meeting. They believe that the backwater effect is being caused by downstream problems on the Shuell Creek Drain. Mr. Paglia agreed with them that this could be the cause of the concerns, and it has been many years since maintenance has been done on that drain. He suggested that the owners could submit a request for maintenance on the Shuell Creek Drain pursuant to the Drainage Act to address their observed problems with water discharge and the Town would then have to proceed with the work of maintenance on that drain. Based on the input at the on-site meeting and this meeting, Mr. Rood also recommends that the Town proceed with maintenance of the Shuell Creek Drain to address the owner concerns and water backup problems.

Owners expressed concerns with the proposed rezoning of the Northside Recycle site and its possible future use. There were concerns about the future access requirements for the site and other potential concerns with the impacts of the site changes. Mr. Paglia responded that all these questions and concerns need to be taken to the Town Planning Department for any answers and clarifications and to provide them with input on how to move forward with the rezoning and

future proposed development of the site. He also advised the owners that the developer will have to meet all ministry regulations to be able to proceed with approval and development of the site. He asked the owners if they had any further drainage questions, and none were brought up. He advised them that the final drainage report would be prepared to include the P.I.C. meeting information and outlined the process for Consideration meeting and Court of Revision meeting for the drainage report with the Drainage Board and with the Town Council proceeding with the by-law establishment.

IV. FIELD SURVEY AND INVESTIGATIONS

Following the on-site meeting we arranged for our survey crew to attend at the site and perform a topographic survey, including taking the necessary levels and details to establish the design parameters for the installation of the new Branch Drain and roadway crossing bridge.

We surveyed the drain both upstream and downstream of the proposed road crossing bridge for the Branch outlet and picked up the existing culvert elevations in order to establish a design grade profile for the installation of the new bridge enclosure. Cross sections were taken of the Sam Paquette Drain at the general location of the proposed new bridge enclosure for the Branch Drain outlet, as necessary for us to complete our design calculations, estimates and specifications.

The Town made initial submissions to the Essex Region Conservation Authority (E.R.C.A) regarding their requirements. We also investigated for any D.F.O. requirements for work that would be proposed to be carried out on the section of the Sam Paquette Drain to be improved with the connection. A response from the Conservation Authority was received via email on May 31st, 2024. E.R.C.A. stated that the portion of the Sam Paquette Drain is located within a regulated area administered by E.R.C.A. Accordingly, a permit or approval will be required by E.R.C.A. for any repairs and/or maintenance works to the portion of the Sam Paquette Drain.

Former Ministry of Natural Resources & Forestry (M.N.R.F.) agreements are replaced with new legislation provisions under Ontario Regulation 242/08, Section 23.9 administered by the Ministry of Environment, Conservation and Parks (M.E.C.P.), which allows repairs, maintenance and improvements to be conducted by the Town within existing municipal drains. These works are exempt from Sections 9 and 10 of the Endangered Species Act provided that the rules in the regulations are followed by the Town and their contractor. When eligible, the new regulations allow Municipalities to give notice to M.N.R.F. by registering their drainage activities through an online registry system.

For the purposes of establishing the watershed area upstream of the proposed bridge enclosure for the road crossing, and determining the pipe size required, we investigated and reviewed the preliminary site design plans and storm water management (S.W.M.) report that were provided by the Developer engineering consultant D.C. McCloskey Engineering Ltd.

V. BRIDGES REVIEW

As part of our investigations, we made detailed inspections and survey of each of the bridges upstream and downstream along the open drain. Preliminary details of the proposed work and cost estimates for work on the road crossing bridge was discussed with the Developer Northside Recycling Inc. that the Town was able to contact, along with advising of no cost sharing for current work and their sharing in cost for future maintenance to the Sam Paquette Drain that receives their flows. The Developer was reminded that they would also share in the cost of the maintenance work along the downstream portions of the drains serving their lands.

VI. FINDINGS AND RECOMMENDATIONS

We find that the profile included in the Sam Paquette Drain March 1982 report plans by D.A. Averil, P.Eng. provides a good fit to the drain and the bridges in the drain. Said report provided for improvements to many of the bridges and we have used the grades and other drain parameters to establish the design and work included for in this report.

Providing mitigation requirements are implemented it was concluded that present wildlife Species at Risk will be protected from negative impacts and will not contravene with Section 9 (species protection) or Section 10 (habitat protection) of the Endangered Species Act, 2007. Based on this information we find that the Town can proceed with the Branch Drain and improvements to the drain as they are exempt under Sections 9 and 10 of the Act, provided that they follow the rules within Ontario Regulation 242/08. To address these requirements the Town has established comprehensive mitigation measures as well as species identification guides for reference. Copies of the measures and guides shall be provided to the successful Tenderer for use during construction, and these documents are available for viewing by any interested parties at the Town office.

We have inspected the 2 bridges upstream and downstream along the section of drain to be affected by the new Branch Drain connection. Once the new road bridge enclosure has been constructed, we recommend that the Town keep up and maintain this bridge enclosure as part of the drainage works in the future. We recommend that standard maintenance works such as flushing and cleaning and endwall repair be carried out in accordance with the provisions of this report and the standard practice requirements and regulations at the time of the work.

We further recommend that all future maintenance work to the access bridge enclosure be carried out as provided for in this report and that the costs shall be assessed to the affected owners and upstream lands and roads in the proportions as established in this report.

Existing unpolluted connections will be connected to the new Branch Drain and bridge and the extended outlet to the open drain. The Town will work with the Owner, the Health Unit, and the Ministry of the Environment and Climate Change (M.O.E.C.C.) to address any sanitary system

problems. The Developer is advised that septic flows cannot be allowed to the storm drainage system pursuant to applicable legislation.

Based on our detailed survey, investigations, examinations, and discussions with the affected Developer contacts and governing Authorities, we would recommend that drain improvement works be carried out as follows:

- a) The new pipe will be set so that 10% of its diameter is below the drain bottom in accordance with the current practice and requirements of the Conservation Authority and the Department of Fisheries and Oceans.
- b) All bridge pipes are to be provided with either quarried limestone rip rap on filter cloth sloped ends, or precast concrete block endwalls, unless an existing concrete headwall can be re-used.
- c) We recommend that all bridges shall be kept up and maintained in the future in accordance with the details and provisions included within this report, the plans and the specifications, subject to any further requirements established by the approval Authorities including E.R.C.A., D.F.O. and M.N.R.F.
- d) We recommend that all drain improvements, including those to access bridges, be carried out in accordance with the requirements established by E.R.C.A. and D.F.O. as set out in the documents within **Appendix “REI-A”** attached to this report.
- e) As this is an existing Municipal drain, the repair and improvement can be carried out based on the provisions included within the former Agreement that the Town had with M.N.R.F. and the mitigation measures included within same. A copy of said mitigation measures is included in **Appendix “REI-B”** within this report. We recommend that any work being completed shall be carried out in accordance with **Schedule “C” Mitigation Plan** of the agreement as included in **Appendix “REI-B”** for reference by the Owners and the Contractor who will be conducting the works.
- g) We find that portions of the open drain along the east side of Concession Road 8 have some accumulation of silt and debris, and we recommend that these be cleaned out as set out further in this report.
- h) The County of Essex and the Town are in agreement on relocation of the parcel’s drain outlet to the Sam Paquette Drain just north of its present location to outlet to the same Municipal drain, being the Shuell Creek Drain, and we recommend proceeding with same.

We further find and recommend as follows:

- a) **Bridge No. 5** (Town of Amherstburg 8th Concession Road)

The proposed site development plan provides for a ditch inlet catch basin near the northeast corner of the parcel adjacent to the 8th Concession Road and 45 metres of 375 mm diameter high density polyethylene (H.D.P.E.) pipe from the basin extending easterly under the road to outlet into the Sam Paquette Drain on the east side of the road. The basin and road crossing pipe will discharge the flows from the proposed ditch outlet into the Sam Paquette Drain at the restricted outflow rate. We recommend that this Branch Drain and bridge enclosure be constructed as provided in the development plans and be maintained by the Town in the future as needed with all costs to the land parcel served by the Branch Drain and enclosure.

We recommend that the Sam Paquette Drain be repaired and improved, including the bridge enclosure construction for the Branch Drain as outlined, in accordance with this report, the attached specifications and the accompanying drawings, and that all works associated with same be carried out pursuant to Section 78 and 65 of the “Drainage Act, R.S.O. 1990, Chapter D.17 as amended 2021”.

VII. ALLOWANCES

We find that the work on the drain will only impact the development lands, particularly at the new Branch Drain outlet, and the roadway and these lands will be fully restored as part of the construction work. We therefore recommend that no allowances are required, as is provided for under Section 29 of the “Drainage Act, R.S.O. 1990, Chapter D.17, as amended 2021”.

We find that all of the Branch Drain bridge work will generally be completed within the confines of the existing development lands, drain limits and road right-of-way and have provided for full restoration works to be carried out at all disturbed areas. We recommend that any materials removed from the open drain, or existing bridges and enclosures along lawn areas, be loaded up and hauled away for disposal by the Contractor.

Based on the above we find that no allowances for damages are necessary pursuant to Section 30 of the Drainage Act for those portions of the parcels having lawn or grass areas.

VIII. ESTIMATE OF COST

Our estimate of the Total Cost of this work, including all incidental expenses, is the sum of **SIXTY ONE THOUSAND (\$61,000.00)** made up as follows:

CONSTRUCTION

- Item 1) **Station 0+203.30 - Bridge No. 5;** Supply and install 45 lineal metres of 375mm diameter Boss 2000 320kPa smoothwall H.D.P.E. pipe including wrap couplers and filter cloth wrap;

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	cut roadway asphalt for pipe trench and remove and dispose; provide pipe bedding and Granular 'B' backfill and 305mm thick Granular 'A' top layer and minimum 90mm thick H.L.4 or SuperPave equivalent asphalt to match existing; all excavation, backfill, compaction; provide topsoil placement, seeding and mulching, and restoration and clean up, complete.		
	Lump Sum	\$	21,000.00
Item 2)	<u>Ditch Inlet Catch Basin</u> ; Supply and install 600mm square precast concrete ditch inlet catch basin with 3 to 1 sloped top and galvanized steel honeycomb grating in accordance with O.P.S.D. requirements including 450mm deep sump, all excavation, bedding, backfill, compaction and outlet pipe connection with grouting, topsoil, seed and mulch and full clean up and restoration, complete.	Lump Sum	\$ 2,450.00
Item 3)	<u>Station 0+000.0 to Station 0+731.0</u> ; Carry out bottom dipping and excavation of the drain to remove accumulated sediment and restore the drain to the profile grade and sections shown on the plans, including all leveling, hauling and disposal of material where specified, approximately <u>731</u> metres (731 cubic metres) at <u>\$10.00</u> per lineal metre.		\$ 7,310.00
Item 4)	<u>Station 0+000.0 to Station 0+731.0</u> ; Provide quarried limestone rip rap on filter cloth general erosion protection on drain banks at surface water inlets, and road crossing bridge pipe ends including excavation, removal of any deleterious materials, all hauling and disposal of material, supply and place rip rap on filter cloth, complete:		
	a) Quarried limestone: approximately <u>25.0</u> tonnes at <u>\$60.00</u> per tonne	\$	1,500.00
	b) Filter cloth: approximately <u>50</u> square metres at <u>\$5.00</u> per square metre	\$	250.00
Item 5)	Contingency Amount for Construction	\$	5,000.00
	SUBTOTAL FOR CONSTRUCTION	\$	37,510.00

Report – Sam Paquette Drain & Branch
& Subsequent Connection E09-2022-012
Town of Amherstburg - REI2022D013

2025-01-16

Estimated Net H.S.T. (1.76%) on Construction	\$	660.00
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TOTAL FOR CONSTRUCTION	\$	38,170.00
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INCIDENTALS

1) Report, Estimate, & Specifications	\$	5,000.00
2) Survey, Assistants, Expenses, and Drawings	\$	10,000.00
3) Duplication Cost of Report and Drawings	\$	700.00
4) Estimated Cost of Letting Contract	\$	1,000.00
5) Estimated Cost of Layout and Staking	\$	1,200.00
6) Estimated Cost of Full-Time Supervision and Inspection During Construction (based on 3 day duration)	\$	3,000.00
7) Estimated Net H.S.T. on Items Above (1.76 %)	\$	368.00
8) Estimated Cost of E.R.C.A. Permit	\$	800.00
9) Contingency Allowance	\$	762.00

TOTAL FOR INCIDENTALS	\$	22,830.00
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TOTAL FOR CONSTRUCTION (brought forward)	\$	38,170.00
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TOTAL ESTIMATE	\$	61,000.00
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IX. DRAWINGS AND SPECIFICATIONS

As part of this report, we have attached design drawings for the construction of the Branch Drain and access bridge and drain repairs and improvements. The design drawings show the subject

bridge and improvement locations and the details, as well as the approximate location within the watershed area. The design drawings are attached to the back of this report and are labelled **Appendix “REI-E”**.

Also attached, we have prepared Specifications which set out the required construction details for the proposed Branch Drain bridge and drain repairs and improvements, which also include Standard Specifications labelled therein as **Appendix “REI-C”**.

X. SCHEDULE OF ASSESSMENT

We would recommend that the Total Cost for construction of this project, including incidental costs, be charged against the Northside Recycle Inc. development lands affected. On September 22nd, 2005, the Ontario Ministry of Agriculture, Food and Rural Affairs (O.M.A.F.R.A.) issued Administrative Policies for the Agricultural Drainage Infrastructure Program (A.D.I.P.). This program has re-instated financial assistance for eligible costs and assessed lands pursuant to the Drainage Act. Sections 85 to 90 of the Drainage Act allow the Minister to provide grants for various activities under said Act. Sections 85 and 87 make it very clear that grants are provided at the discretion of the Minister. Based on the current A.D.I.P. policies, “lands used for agricultural purposes” may be eligible for a grant in the amount of 1/3 of their total assessment. The new policies define “lands used for agricultural purposes” as those lands eligible for the “Farm Property Class Tax Rate”. The Town Clerk provides this information to the Engineer from the current property tax roll. Properties that do not meet the criteria are not eligible for grants. In accordance with same we expect that this project will not be qualified for the grant normally available for agricultural lands. The Ministry however, is continually reviewing their policy for grants, and we recommend that the Town monitor the policies, and make application to the Ministry for any grant should same become available through the A.D.I.P. program or other available funds. When maintenance work is carried out in the future on the Branch Drain portion, the cost for said future maintenance shall be assessed to the Northside Recycle Inc. development lands.

With the Northside Recycle parcel directing all of its flows through the new outlet Branch Drain and culvert enclosure under Concession Road 8, we recommend that the latest maintenance assessment schedule for the Sam Paquette Drain be updated to include the parcel in the future cost sharing for any maintenance work to this drain in accordance with Section 65 of the Drainage Act. We recommend that the March 12th, 2019 Maintenance Schedule of Assessment for the Sam Paquette Drain be updated to include the Northside Recycle Inc. parcel in the Privately Owned – Non-Agricultural Lands portion of the schedule. Attached is a copy of the updated Maintenance Schedule of Assessment for Sam Paquette Drain dated January 16th, 2025. We recommend that a copy of the schedule be included in the drainage files for the Sam Paquette Drain and the Shuell Creek Drain for future reference.

Report – Sam Paquette Drain & Branch
& Subsequent Connection E09-2022-012
Town of Amherstburg - REI2022D013

2025-01-16

XI. FUTURE MAINTENANCE

We recommend that the Branch Drain and 8th Concession Road bridge enclosure structure as identified herein, be maintained in the future as part of the drainage works. We would also recommend that the bridge enclosure, for which the maintenance costs are to be shared with the upstream lands within the watershed, be maintained by the Town and that said maintenance would include works to the bridge culvert, bedding, backfill, ditch inlet catch basin and end treatment. Should concrete, asphalt, or other decorative surfaces over the bridge culvert enclosure require removal as part of the maintenance works, these surfaces shall also be repaired or replaced as part of the works. Likewise, if any fencing, gate, decorative walls, guardrails, or other special features exist that will be impacted by the maintenance work, they are also to be removed and restored or replaced as part of the bridge enclosure maintenance work. However, the cost of the supply and installation of any surface materials other than Granular “A” material and the cost of removal and restoration or replacement, if necessary, of any special features, shall be totally assessed to the benefiting Owner(s) served by said access bridge enclosure.

After the completion of all of the works included within this report, the Branch Drain and the bridge enclosure roadway crossing within the 8th Concession Road shall be maintained in the future by the Town of Amherstburg and should any maintenance works be required to any of same, all costs are to be assessed to the abutting Northside Recycle Inc. development landowner.

The “Maintenance Schedule of Assessment – Branch Drain” values are strictly for the purposes of properly allocating future maintenance costs on the Branch Drain and road crossing bridge enclosure. When future maintenance work is carried out, the assessment to the affected Owner shall be based on the actual future maintenance cost shared on a pro-rata basis with the values shown in this assessment schedule. We further recommend that the maintenance cost sharing as set out above shall remain as aforesaid until otherwise determined and re-established under the provisions of the “Drainage Act, R.S.O. 1990, Chapter D.17 as amended 2021”.

All of which is respectfully submitted.

Rood Engineering Inc.

Gerard Rood

Gerard Rood, P.Eng.



tm

att.

ROOD ENGINEERING INC.

Consulting Engineers

9 Nelson Street

LEAMINGTON, Ontario N8H 1G6

MAINTENANCE SCHEDULE OF ASSESSMENT
SAM PAQUETTE DRAIN BRANCH
Northside Recycle Inc.
Town of Amherstburg

4. PRIVATELY OWNED - NON-AGRICULTURAL LANDS:

Tax Roll <u>No.</u>	Con. or Plan <u>No.</u>	Lot or Part <u>of Lot</u>	Acres <u>Owned</u>	Acres <u>Afft'd</u>	Hectares <u>Afft'd</u>	Owner's Name	Value of <u>Benefit</u>	Value of <u>Outlet</u>	Value of Special <u>Benefit</u>	TOTAL <u>VALUE</u>
	7	11	47.59	47.59	19.259	Northside Recycle Inc.	\$ 1,250.00	\$ 3,750.00	\$ -	\$ 5,000.00
Total on Privately Owned - Non-Agricultural Lands.....							<u>\$ 1,250.00</u>	<u>\$ 3,750.00</u>	<u>\$ -</u>	<u>\$ 5,000.00</u>
TOTAL ASSESSMENT				<u>47.59</u>	<u>19.26</u>		<u>\$ 1,250.00</u>	<u>\$ 3,750.00</u>	<u>\$ -</u>	<u>\$ 5,000.00</u>

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1 Hectare = 2.471 Acres
Project No. REI2022D013
January 16th, 2025

MAINTENANCE SCHEDULE OF ASSESSMENT

(for future maintenance of the open drain)

SAM PAQUETTE DRAIN

Town of Amherstburg

3. MUNICIPAL LANDS:

Tax Roll <u>No.</u>	Con. or Plan <u>No.</u>	Lot or Part of Lot	Acres <u>Afft'd</u>	Hectares <u>Afft'd</u>	Owner's Name	Value of Benefit	Value of Outlet	Value of Special Benefit	TOTAL VALUE
Concession Road 8			4.05	1.640	Town of Amherstburg	\$ 21.00	\$ 45.00	\$ -	\$ 45.00
North Sideroad			6.69	2.708	Town of Amherstburg	\$ 46.00	\$ 99.00	\$ -	\$ 99.00
County Road 11 (Walker Road)			2.69	1.087	County of Essex	\$ 13.00	\$ 30.00	\$ -	\$ 30.00
Total on Municipal Lands.....						\$ 80.00	\$ 174.00	\$ -	\$ 254.00

4. PRIVATELY OWNED - NON-AGRICULTURAL LANDS:

Tax Roll <u>No.</u>	Con. or Plan <u>No.</u>	Lot or Part of Lot	Acres <u>Afft'd</u>	Hectares <u>Afft'd</u>	Owner's Name	Value of Benefit	Value of Outlet	Value of Special Benefit	TOTAL VALUE
	8	11	2.41	0.977	Tracey & Janet Toews	\$ -	\$ 12.00	\$ -	\$ 12.00
	8	11	2.45	0.993	Willard & Elizabeth Holden	\$ -	\$ 12.00	\$ -	\$ 12.00
	7	10	1.96	0.793	Dennis Toth	\$ -	\$ 10.00	\$ -	\$ 10.00
	8	10	1.00	0.405	Kevin Sprague & Heather Digou	\$ -	\$ 5.00	\$ -	\$ 5.00
	8	10	0.88	0.356	Mark & Eleanor Gillis	\$ -	\$ 4.00	\$ -	\$ 4.00
	8	10	0.69	0.279	Lawrence Bergeron	\$ 2.00	\$ 4.00	\$ -	\$ 6.00
	8	10	1.80	0.728	Peter Campbell	\$ -	\$ 12.00	\$ -	\$ 12.00
	8	10	0.64	0.260	Thomas & Charlotte Renaud	\$ 2.00	\$ 4.00	\$ -	\$ 6.00
	7	11	47.59	19.259	Northside Recycle Inc.	\$ 24.00	\$ 84.00	\$ -	\$ 108.00
Total on Privately Owned - Non-Agricultural Lands.....						\$ 28.00	\$ 147.00	\$ -	\$ 175.00

Tax Roll No.	Con. or Plan No.	Lot or Part of Lot	Acres Afft'd	Hectares Afft'd	Owner's Name	Value of Benefit	Value of Outlet	Value of Special Benefit	TOTAL VALUE
5. PRIVATELY OWNED - AGRICULTURAL LANDS (grantable):									
	8	11	32.00	12.950	Mark Polewski	\$ -	\$ 54.00	\$ -	\$ 54.00
	8	11	32.00	12.950	Karen & Mary Cedar	\$ 25.00	\$ 54.00	\$ -	\$ 79.00
	8	11	9.83	3.980	Drouillard Farms Ltd.	\$ -	\$ 16.00	\$ -	\$ 16.00
	8	11	30.17	12.210	Marguerite Drouillard	\$ -	\$ 51.00	\$ -	\$ 51.00
	7	10	2.35	0.950	Barry & Barbara Kenshol	\$ -	\$ 4.00	\$ -	\$ 4.00
	8	10	24.45	9.894	Scott, Brad, & Sheri Bergeron	\$ 19.00	\$ 41.00	\$ -	\$ 60.00
	8	10	25.83	10.453	Walter & Gisela Tendick	\$ 20.00	\$ 42.00	\$ -	\$ 62.00
	8	10	46.99	19.018	Mihai Cionca	\$ 38.00	\$ 83.00	\$ -	\$ 121.00
	8	10	50.45	20.416	Thomas & Charlotte Renaud	\$ 40.00	\$ 84.00	\$ -	\$ 124.00
Total on Privately Owned - Agricultural Lands (grantable).....						\$ 142.00	\$ 429.00	\$ -	\$ 571.00
TOTAL ASSESSMENT			326.94	132.31		\$ 250.00	\$ 750.00	\$ -	\$ 1,000.00
=====									

1 Hectare = 2.471 Acres
Project No.REI2022D013
January 16th, 2025

SPECIFICATIONS
SAM PAQUETTE DRAIN
Branch and Road Culvert Crossing
Geographic Twp. of Anderdon
TOWN OF AMHERSTBURG

I. GENERAL SCOPE OF WORK

The Contractor shall provide all material, labour, and equipment to construct an enclosure and road crossing under the 8th Concession Road for the Sam Paquette Drain to serve parcel 470-00300 consisting of approximately 43.0 metres (141 ft.) of 375mm diameter, 320 kPa smooth wall H.D.P.E. plastic pipe in the Branch Drain, with ditch inlet catch basin maintenance hole (C.B.M.H.) at west end to connect to the proposed open drain that will serve the parcel. The new enclosure shall be constructed so that it extends from the proposed open drain near the northeast limit of the parcel to the existing Sam Paquette Drain on the east side of the 8th Concession Road. This location shall be the exact designated location of this Branch Drain as illustrated on the plans. Any changes to the location of the new Branch Drain must be approved in writing by the Engineer. The general layout of the Branch Drain and other ancillary work shall be provided as shown and detailed in the accompanying drawing attached within **Appendix "REI-E"**. A Benchmark has been set near the proposed enclosure so that same can be utilized for the setting of the new pipe invert grades. The **Benchmark** is described in the detail plan for the enclosure road crossing pipe installation along with its elevation.

II. E.R.C.A. AND D.F.O. CONSIDERATIONS

All of the work shall be carried out in accordance with any permits or authorizations issued by the Essex Region Conservation Authority (E.R.C.A.) or the Department of Fisheries and Oceans (D.F.O.), copies of which will be provided, if available. The standard mitigation response received from E.R.C.A. shall be followed and a copy of same is included within **Appendix "REI-A"**. The Contractor shall ensure that sediment and erosion control provisions, set out further in these specifications and in **Appendix "REI-A"**, are followed. Work shall be scheduled so that it can be completed in the dry and when there is no risk of a rain event that might exceed the capacity of the water control system that the Contractor employs. Any damming of the drain will be done on the upstream side in accordance with the provisions set out in **Appendix "REI-A"**.

The Contractor is to review **Appendix "REI-A"** in detail and is required to comply in all regards with the contents of said E.R.C.A. and D.F.O. measures, and follow the special requirements therein included during construction.

III. M.N.R.F. – M.E.C.P. CONSIDERATIONS

The Contractor is to note that the Ministry of Natural Resources and Forestry (M.N.R.F.) and Ministry of Environment Conservation and Parks (M.E.C.P.) screening process by way of a Species at Risk (S.A.R.) review of the "Endangered Species Act, 2007" (E.S.A.) will be completed as a self-assessment by the Town pursuant to Section 23.9 of the E.S.A. prior to construction. This Section allows the Town to conduct eligible works of repair, maintenance, and improvement to existing municipal drains under the Drainage Act, and exemptions from Sections 9 and 10 of the E.S.A., provided that the requirements are followed in accordance with Ontario Regulation 242/08. The results of the review will be provided to the Contractor and copies of the mitigation measures, habitat protection and identification sheets will be included within **Appendix "REI-B"**. Snake species including Butler's Garter Snake and Eastern Foxsnake are indicated to be threatened and endangered respectively on the agreement plans for this site. In addition, turtles along with the snakes are considered sensitive to the area and are mobile. Schedule 'C' of the agreement has provisions to protect them and

mitigate any impacts. A copy of the Town review and copies of the agreement mitigation are included within **Appendix “REI-B”**.

The Contractor is to review **Appendix “REI-B”** in detail and is required to comply in all regards with the contents of said M.N.R.F. – M.E.C.P. measures, and follow the special requirements therein included during construction. Throughout the course of construction, the Contractor will be responsible for ensuring that all necessary provisions are undertaken to protect all species at risk and their habitats including any listed in the N.H.I.C. table in the Appendix. If a threatened or sensitive species is encountered, the Contractor shall notify the Town and M.N.R.F. – M.E.C.P. and provide all the equipment and materials stipulated by the mitigation requirements for handling the species and cooperate fully with the Town and M.N.R.F. – M.E.C.P. staff in the handling of the species.

IV. BRIDGE ENCLOSURE CONSTRUCTION

When completed, the new access bridge along the centreline of the new culvert shall have a total top width, including the top width of the quarried limestone on filter cloth end walls, of approximately 43 metres (141 ft.) and a travelled roadway width of 7.3 metres (24 ft.). The quarried limestone on filter cloth end wall protection shall be installed on a slope no steeper than 1.5 horizontal to 1.0 vertical and shall extend from the end of the new H.D.P.E. pipe to the top elevation of the drain bank on the east end and to match the 3 to 1 slope on the ditch inlet catch basin on the west end.

The 320 kPa smooth wall heavy duty H.D.P.E. plastic pipe to be provided for this project is to be supplied as no more than eight (8) approximately equal lengths of pipe for the bridge enclosure, which are to be coupled together with the use of a wrap coupler, secured in accordance with the manufacturer’s recommendations and each joint shall be fully wrapped in filter cloth extending 150mm beyond the coupler on each end to avoid any soil migration through the joint. Under no circumstance shall the access culvert for the bridge be provided with more than eight (8) lengths of pipe and the pipe shall have a minimum length of 3 metres. The high-density polyethylene pipe to be utilized for this bridge installation must be approved by the Town Drainage Superintendent or Engineer, prior to its placement in the drain.

The Contractor shall also note that the placement of the new roadway access bridge culvert is to be performed totally in the dry, and it shall be prepared to take whatever steps are necessary to ensure same, all to the full satisfaction of the Town Drainage Superintendent or Engineer. As part of the work, the Contractor will be required to clean out the drain along the full length of the bridge pipe and for a distance of 3.05 metres (10.0 ft.) both upstream and downstream of said pipe. The trench portion across the roadway shall have a minimum width extending 600mm beyond the pipe side walls to allow for proper granular placement and compaction and the asphalt cut out accordingly. The design parameters of the Sam Paquette Drain at the location of this new access bridge enclosure installation consists of a 1.0m (3 ft.) bottom width, 0.0528% grade, and 1.5 horizontal to 1.0 vertical sideslopes. The Contractor shall be required to cut any brush and strip the existing drain sideslopes of any vegetation as part of the grubbing operation. The Contractor shall also be required to dispose of all excavated and deleterious materials, as well as any grubbed-out materials, to a site to be obtained by it at its own expense. The Contractor shall note that the survey indicates that the existing drain bottom is slightly above the design grade. The Contractor shall be required to provide any and all labour, material and equipment to set the pipe to the required design grades. The Contractor shall also be required to supply, if necessary for a solid base, a minimum thickness of 150mm (6”) of 20mm (3/4”) clear

Specifications – Sam Paquette Drain
Branch and Road Crossing
Town of Amherstburg - REI2022D013

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stone bedding underneath the culvert pipe, extending from the bottom of the excavation to the culvert invert grade, all to the full satisfaction of the Town Drainage Superintendent or Engineer.

The installation of the complete length of the new access bridge enclosure culvert, including all appurtenances, shall be completely inspected by the Town Drainage Superintendent or Engineer prior to backfilling any portions of same. Under no circumstance shall the Contractor backfill same until the Town Drainage Superintendent or Engineer inspects and approves said pipe installation. The Contractor shall provide a minimum notice of 2 working days to the Town Drainage Superintendent or Engineer prior to the commencement of this work. The installation of this new access bridge is to be performed during the normal working hours from Monday to Friday of the Town Drainage Superintendent or Engineer.

Once the 320 kPa smooth wall heavy duty H.D.P.E. plastic pipe has been satisfactorily set in place at the site, the Contractor shall completely backfill same with granular material M.T.O. Type “B” O.P.S.S. (Ontario Provincial Standard Specification) Form 1010, with the exception of the top 305mm (12”) of the backfill material under the asphalt and for the full top width of the drain and the access bridge, which shall be granular material M.T.O. Type “A” O.P.S.S. Form 1010. The roadway asphalt shall be restored with a minimum of 90mm thickness or to match existing thickness with 2 layers of H.L. 4 asphalt or Superpave 12.5 equivalent with minimum 40mm thickness per layer and compacted to lifts compacted to a value ranging from 92% to 96% of maximum relative density as per O.P.S.S. 310. The end slopes of the backfill material over the 320 kPa smooth wall heavy duty H.D.P.E. plastic pipe from the invert of said pipe to the top of roadway elevation shall be quarried limestone on filter cloth erosion protection. The end walls shall be extended around onto the drain banks in line with the end of the bridge enclosure culvert pipe, all as shown on the plans included in Appendix “REI-E”. The quarried limestone shall be provided as shown and detailed on the plans or as indicated in the Standard Specifications in Appendix “REI-C” and shall be graded in size from a minimum of 100mm (4”) to a maximum of 250mm (10”). The quarried limestone to be placed on the sloped ends of an access bridge or enclosure shall be underlain with a synthetic non-woven geotextile filter fabric. The sloped quarried limestone protection is to be rounded as shown on the plan details and shall also extend along the drain side slopes to a point directly in line with the ends of the culvert pipe. All work shall be completed to the full satisfaction of the Township Drainage Superintendent or the Consulting Engineer.

The Contractor will be responsible to restore any damage caused to the roadways at its cost. All damaged hard surface roadway areas shall be neatly saw cut and the damaged materials removed and disposed of by the Contractor prior to carrying out any restoration work. The extent of the repairs shall be established in consultation with the Town Drainage Superintendent, the Road Authority, and the Consulting Engineer and the repairs shall be completed to their full satisfaction.

The installation of the sloped quarried limestone end protection, unless otherwise specified herein, shall be provided in total compliance with Item 2), 3), and 4) of the **“STANDARD SPECIFICATIONS FOR ACCESS BRIDGE CONSTRUCTION”**. These are attached to the back of these

Specifications – Sam Paquette Drain
Branch and Road Crossing
Town of Amherstburg - REI2022D013

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specifications and labelled **Appendix “REI-C”**. The Contractor shall comply in all respects with the General Conditions included in Item 4 and the **“Typical Quarried Limestone End Protection Detail”** also in **Appendix “REI-C”**.

The quarried limestone erosion protection shall be embedded into the sideslopes of the drain a minimum thickness of 305mm and shall be underlain in all cases with non-woven synthetic filter mat. The filter mat shall not only be laid along the flat portion of the erosion protection, but also contoured to the exterior limits of the quarried limestone and the unprotected slope. The width of the erosion protection shall be as established in the accompanying drawings or as otherwise directed by the Township Drainage Superintendent or the Consulting Engineer during construction. In placing the erosion protection, the Contractor shall carefully tamp the quarried limestone pieces into place with the use of the excavator bucket so that the erosion protection when completed will be consistent, uniform and tightly laid. In no instance shall the quarried limestone protrude beyond the exterior contour of the unprotected drain sideslopes along either side of said protection. The synthetic filter mat fabric to be used shall be non-woven geotextile GMN160 conforming to O.P.S.S. 1860 Class I, as available from Armtec Construction Products, or equal. The quarried limestone to be used shall be graded in size from a minimum of 100mm to a maximum of 250mm, and is available from Walker Aggregates Amherst Quarries, in Amherstburg, Ontario, or equal.

Once the new 320 kPa smooth wall heavy duty H.D.P.E. plastic pipe has been set in place at the required location, the Contractor shall completely backfill same with granular material and install the quarried limestone on filter cloth protection on both ends of the bridge. The installation of the endwalls, as well as the backfilling of the pipe where applicable, shall be provided in compliance with Items 2), 3), and 4) of the **“Standard Specifications for Access Bridge Construction”** attached within **Appendix “REI-C”** and in total compliance and in all respects with the General Conditions included in Item 4) of said Appendix. The Contractor, in all cases, shall comply with these specifications and upon completion of the sloped quarried limestone end protection installation shall restore the adjacent areas to their original conditions.

The 320 kPa smooth wall heavy duty H.D.P.E. plastic pipe for this installation shall be provided with a depth of cover measured from the top of the 320 kPa smooth wall heavy duty H.D.P.E. plastic pipe to the top of the granular backfill of approximately 1.200m (47”) for the new bridge and if the culvert is placed at its proper elevations, this should be easily achieved. If the Contractor finds that the specified cover is not being met, they shall notify the Drainage Superintendent and the Engineer immediately so that steps can be taken to rectify the condition prior to the placement of any backfill. The cover requirement is **critical** and must be attained. In order for this new access bridge culvert to properly fit the channel parameters, all of the design grade elevations provided below must be strictly adhered to.

Also, for use by the Contractor, we have established a Benchmark near the site. This Benchmark is the *“top of nail in north face of hydro pole located on the northwest side at the 8th Concession*

Specifications – Sam Paquette Drain
Branch and Road Crossing
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*Road and North Sideroad intersection”, with same being **Elevation 182.884 metres**. The new pipe enclosure culvert and the backfilling are to be placed on the following basis:*

- i) The **west (upstream) invert** of the proposed bridge culvert is to be set at Elevation **181.300metres**.
- ii) The **east (downstream) invert** of the proposed bridge culvert is to be set at Elevation **181.234 metres**.
- iii) The centreline of roadway for this bridge enclosure installation shall be set to approximately Elevation **182.745 metres** to match the existing roadway to the north and south, and the edges of pavement are to be set to match to the existing pavement grade at each edge. The access bridge roadway, in all cases, shall be graded with a cross-fall from the centreline of the roadway to the outer edges of the roadway at an approximate grade of 2.0% or to match the existing roadway pavement.

As a check, all of the above design grade elevations should be confirmed before commencing to the next stage of the new access bridge enclosure installation. The Contractor is also to check that the pipe invert grades are correct by referencing the Benchmark provided for the site.

The Contractor shall also be required to provide all labour, equipment and material to provide granular fill to all gore areas at the corners as noted on the plans and protect any existing landscape features during the course of the work. All plastic pipe ends shall be secured against flotation, to the satisfaction of the Town Drainage Superintendent or Engineer. Previously used methods included driving a rod with a tee head through the bottom of the pipe just inside the pipe end, with the rod sufficiently long enough to anchor the pipe end and resist all flotation forces. A second method is installation of rods on each side of the pipe near the outlet ends with a steel strap or heavy gauge wiring across the top of the pipe and secured tightly to the rods. Rods may be T-bar fence posts or steel re-bar minimum 15M size with sufficient length embedded into the soil to prevent any risk of pipe end flotation.

As part of the work provided for the construction of the access bridge, the Contractor shall be required to protect or extend any existing lateral tile ends which conflict with the bridge installation. All existing lateral tile drains, where required, shall be diverted and extended to the ends of the new access bridge enclosure culvert and shall be extended and installed in accordance with the “Standard Lateral Tile Detail” as shown in **Appendix “REI-C”**, unless otherwise noted. Connections shall be made using manufacturer’s couplers wherever possible. All other connections shall be completely sealed with concrete grout around the full exterior perimeter of each joint.

The Contractor is to note that the granular roadway backfill shall consist of granular material M.T.O. Type “B” O.P.S.S. Form 1010 for pipe bedding and backfill and M.T.O. Type “A” O.P.S.S. Form 1010 is to be provided to a minimum depth of 305mm (12”) at the roadway shoulders and below the asphalt and be satisfactorily compacted in place. The Contractor is to also note that all granular material being placed as backfill for this bridge enclosure installation shall be compacted in place to

Specifications – Sam Paquette Drain
Branch and Road Crossing
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a minimum Standard Proctor Density of 100%, and that all native fill material to be used for the construction shall be compacted in place to a minimum Standard Proctor Density of 95%.

All of the granular backfill, native fill, and the compaction levels for same shall be provided to the full satisfaction of the Town Drainage Superintendent or the Engineer. The Contractor shall also note that any sediment being removed from the drain bottom as previously specified herein, shall not be utilized for the construction of the enclosure, and shall be disposed of by the Contractor to a site to be obtained by it at its own expense.

The Contractor shall be required to restore any and all drain sideslopes damaged by the access bridge enclosure installation, utilizing the available scavenged topsoil, and shall seed and mulch over all of said areas.

The placing and grading of any topsoil shall be carefully and meticulously carried out in accordance with Ontario Provincial Standard Specifications, Form 802 dated November 2010, or as subsequently amended, or as amended by these specifications and be readied for the seeding and mulching process. The seeding and mulching of all of the above-mentioned areas shall comply in all regards to Ontario Provincial Standard Specifications, Form 803 dated November 2010 and Form 804, dated November 2013, or as subsequently amended, or as amended by these specifications. The seeding mixture shall be the Standard Roadside Mix (Canada No. 1 Lawn Grass Seed Mixture) as set out in O.P.S.S. 804. All cleanup and restoration work shall be performed to the full satisfaction of the Town Drainage Superintendent or Engineer.

When all of the work for this installation has been completed, the Contractor shall ensure that positive drainage is provided to all areas; and shall ensure that the site is left in a neat and workmanlike manner, all to the full satisfaction of the Town Drainage Superintendent or Engineer.

V. CONSTRUCTING NEW SWALES

The Contractor shall provide all labour, material, and equipment, in order to restore the swale drains to the lines, levels, and grades as is shown and detailed in the accompanying drawings. The centreline of swale finished grade elevation and the finished swale cross section at various locations along the length of the drain are to be provided to match the original swale as is shown and detailed in the design drawings. The Contractor shall be required to strictly adhere to this swale design unless otherwise directed and approved by the Engineer on the project. The drawings include the approximate location of the swale over the new enclosure pipe along the length of the drain. The Contractor shall adhere to same unless otherwise directed by the Town Drainage Superintendent or the Engineer.

The swale shall generally be constructed with a V-section, having minimum 4 horizontal to 1 vertical side slopes. All swales shall be graded to ensure positive flow of the surface drainage from the existing roadway and abutting lands into the portions that act as outlets for the particular swale section. All materials excavated from the swale, except scavenged topsoil, including all deleterious materials shall be loaded up and hauled away and disposed of by the Contractor to a site to be obtained by it at its own expense.

All swales and boulevard areas are to be completely restored with topsoil, seed and mulch. Where required by the work, all disturbed and newly filled areas and surfaces of newly graded shallow swales shall be covered with approximately 50mm of topsoil fine graded. Across all other grass boulevard areas, the swale and drain banks shall be restored by utilizing a seed and mulch

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mix and shall be thoroughly restored to their pre-construction conditions. The placing and grading of all topsoil and seeding shall be carefully and meticulously carried out according to the specifications above. The Contractor shall provide watering of sod and seed areas in accordance with O.P.S.S. requirements. As part of the work, the Contractor must provide a full one (1) year guarantee on all sod, seeding and mulching work, and will be required to repair all areas that erode or where the grass cover fails to catch. All work shall be meticulously done and completed in a good and workmanlike fashion to the full satisfaction of the Town Drainage Superintendent or the Engineer.

VI. ANCILLARY WORK

As part of the work, the Contractor shall ensure that all of the grouted connections for the new H.D.P.E. plastic pipe are grouted solidly and securely to the proposed concrete structure. The grout connection must be solid and thick enough to resist any head pressure build up and prevent leaking and washout of the pipe or surrounding soils. It is anticipated that a fillet of concrete with a surface length of a minimum 305mm at a 45-degree bevel will be required around the complete circumference of the H.D.P.E. plastic pipe to achieve same.

The Contractor shall be required to restore any and all drain sideslopes and boulevard areas damaged by the enclosure installation, utilizing the available scavenged topsoil, and shall seed and mulch over all of said areas.

The placing and grading of any topsoil shall be carefully and meticulously carried out in accordance with Ontario Provincial Standard Specifications, Form 802 dated November 2010, or as subsequently amended, or as amended by these specifications and be readied for the seeding and mulching process. The seeding and mulching of all of the above-mentioned areas shall comply in all regards to Ontario Provincial Standard Specifications, Form 803 dated November 2010 and Form 804 dated November 2013, or as subsequently amended, or as amended by these specifications. The seeding mixture shall be the Standard Roadside Mix (Canada No. 1 Lawn Grass Seed Mixture) as set out in O.P.S.S. 804. All cleanup and restoration work shall be performed to the full satisfaction of the Town Drainage Superintendent or Engineer.

When all of the work for this installation has been completed, the Contractor shall ensure that positive drainage is provided to all areas; and shall ensure that the site is left in a neat and workmanlike manner, all to the full satisfaction of the Town Drainage Superintendent or Engineer.

VII. ACCESS TO WORK

The Contractor is to note that its access to the work shall be off of the 8th Concession Road westerly onto the affected parcel to the proposed drain location. The Contractor shall have access along the frontage of the property for a sufficient width including sufficient area around the C.B.M.H. to complete the installation.

The access through the development lot shall generally comprise of a width extending 8.0 metres each side of the new bridge enclosure pipe, or as structure locations permit. The Contractor may also access the entire width of the adjacent public roadway including the east side for the connection to the Sam Paquette Drain.

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Throughout the course of the work, it is imperative that the Contractor protect as much landscaping and vegetation as possible when accessing along the drain or through the private lands in order to get to the site of the proposed works. Protection of landscaping and vegetation will be a particular concern along the lawn areas of the residential properties. Any accesses or areas utilized in carrying out the works are to be fully restored to their original conditions by the Contractor, including topsoil placement and residential lawn restoration with seed and mulch as directed by the Engineer or the Town Drainage Superintendent. Restoration shall include, but not be limited to, all necessary levelling, grading, shaping, topsoil placement, and granular required to make good any damage caused. Should the Contractor damage any concrete slab areas or sidewalks, the Contractor will be required to remove the broken materials and restore the area using concrete with a minimum 30 MPa strength at 28 days with $6\% \pm 1\%$ air entrainment. All concrete surfaces shall be finished to match as closely as possible to the existing concrete adjacent to the repair areas. The Contractor shall dispose of all removed material, supply and place the concrete, and complete all repairs to the full satisfaction of the Town Drainage Superintendent and the Engineer.

V. REMOVAL OF BRUSH, TREES AND RUBBISH

The extent of the brush and trees along the area of the work is fairly limited. Where there is any brush, trees or rubbish along the course of the drain, including the full width of the access, all such brush, trees or rubbish shall be close cut and grubbed out, and the whole shall be chipped, hauled away or otherwise satisfactorily disposed of by the Contractor. The brush and trees removed along the course of the work are to be put in piles by the Contractor in locations where they can be safely chipped and shall be hauled away and disposed of by the Contractor at its expense. The removal of brush and trees shall be carried out in close consultation with the Town Drainage Superintendent or Engineer to ensure that no decorative trees or shrubs are disturbed by the operations of the Contractor that can be saved. It is the intent of this project to save as many trees and bushes as practical along the course of the work.

Following the completion of the work, the Contractor is to trim up any broken or damaged limbs on trees which are to remain standing, and it shall dispose of said branches along with other brush, thus leaving the trees in a neat and tidy condition.

Any trees that need to be removed on the development lot shall be cut and the stumps removed by careful excavation or grinding to prevent damage to any structures. Brush and bushes along the open drain shall be cut to ground level. The removal of rubbish and bulrushes or other debris shall be included in the Contractor's rate of payment for excavation. No excavation shall occur until after brush clearing and close cutting is completed.

The Contractor shall be required to remove any and all tree roots or stumps which obviously cause obstructions to the installation of the drain. If encountered and directed by the Town Drainage Superintendent or the Engineer, they shall be removed and be chipped or hauled away together with the rest of the trees and brush at no extra cost to the project.

VI. FENCING AND DECORATIVE LANDSCAPING

Where it is necessary to take down or remove any fence or decorative landscaping to proceed with the work, the same shall be done by the Contractor across or along that portion of the work where such fence or decorative landscaping is located. The Contractor will be required to exercise extreme care in the removal of any fencing or decorative landscaping so as to cause a minimum of damage to the same. The decorative landscaping material such as brick pavers, border walls, plants and bushes

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shall be carefully put aside so that the owners may re-use or dispose of the material. Any materials no longer required by the owners shall be hauled away and disposed of by the Contractor.

The Contractor will be required to reinstall any fence that is taken down in order to proceed with the work, and the fence shall be reinstated in a neat and workmanlike manner. The Contractor will not be required to procure any new materials for rebuilding the fence provided that it has used reasonable care in the removal and replacing of the same. When any fence is removed by the Contractor, and the owner thereof deems it advisable and procures new materials for replacing the fence so removed, the Contractor shall replace the fence using the new materials and the materials from the present fence shall remain the property of the owner.

VII. EXCAVATION AND DISPOSAL OF FILL

The Contractor is advised that the installation of the new enclosure may result in a small surplus of fill materials. Any extra materials not required for the restoration of the site shall be loaded up, hauled away, and disposed of by the Contractor to a site to be obtained by it at its expense. During the course of its excavation operations, the Contractor shall salvage sufficient topsoil materials to carry out any restoration required to the grass and lawn areas of the project site.

In all cases, the disposal of any trucked extra or deleterious material will be the responsibility of the Contractor and any work at the disposal site shall be established between the Contractor and the site owner. The Contractor shall ensure that any permits required for fill disposal are obtained from the appropriate authority. The Contractor will be responsible for keeping all private and public roadways free and clear of mud and debris resulting from its use of same for access and hauling purposes.

VIII. GENERAL CONDITIONS

- a) The Town Drainage Superintendent or Consulting Engineer shall have authority to carry out minor changes to the work where such changes do not lessen the efficiency of the work.
- b) The Contractor shall satisfy itself as to the exact location, nature and extent of any existing structure, utility or other object which it may encounter during the course of the work. The Contractor shall indemnify and save harmless the Town of Amherstburg and the Consulting Engineer and their representatives for any damages which it may cause or sustain during the progress of the work. It shall not hold the Town of Amherstburg or the Consulting Engineer liable for any legal action arising out of any claims brought about by such damage caused by it.
- c) The Contractor shall provide a sufficient number of layout stakes and grade points so that the Drainage Superintendent and Consulting Engineer can review same and check that the work will generally conform to the design and project intent.
- d) The Contractor will be responsible for any damage caused by it to any portion of the Town road system, especially to the travelled portion. When excavation work is being carried out and the excavation equipment is placed on the travelled portion of the road, the travelled portion shall be protected by having the excavation equipment placed on satisfactory timber planks or timber pads. If any part of the travelled portion of the road is damaged by the Contractor, the Town shall have the right to have the necessary repair work done by its' employees and the cost of all labour and materials used to carry out the repair work shall be

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deducted from the Contractor's contract and credited to the Town. The Contractor, upon completing the works, shall clean all debris and junk, etcetera, from the roadside of the drain, and leave the site in a neat and workmanlike manner. The Contractor shall be responsible for keeping all public roadways utilized for hauling materials free and clear of mud and debris.

- e) The Contractor shall provide all necessary lights, signs, and barricades to protect the public. All work shall be carried out in accordance with the requirements of the Occupational Health and Safety Act, and latest amendments thereto. If traffic control is required on this project, signing is to comply with the M.T.O. Manual of Uniform Traffic Control Devices (M.U.T.C.D.) for Roadway Work Operations and Ontario Traffic Manual Book 7.
- f) During the course of the work the Contractor shall be required to connect existing drainage pipes to the Municipal Drain. In the event that polluted flows are discovered, the Contractor shall delay the connection of the pipe and leave the end exposed and alert the Town, the Drainage Superintendent and the Consulting Engineer so that steps can be taken by the Town to address the concern with the owner and the appropriate authorities. Where necessary the Contractor shall cooperate with the Town in providing temporary measures to divert the drain or safely barricade same. Should the connection be found acceptable by the authorities, the Contractor shall complete the connection of the drain as provided for in the specifications, at no extra cost to the project.
- g) Following the completion of the work, the Contractor is to trim up any broken or damaged limbs on trees which are to remain standing, and it shall dispose of said branches along with other brush, thus leaving the trees in a neat and tidy condition.
- h) The whole of the work shall be satisfactorily cleaned up, and during the course of the construction, no work shall be left in any untidy or incomplete state before subsequent portions are undertaken.
- i) During the course of the project the Contractor shall deal with any excess soil management from the project in accordance with Ontario Reg 406/19 pursuant to the Environmental Protection Act, R.S.O. 1990, c. E.19 and any subsequent amendments to same.
- j) All driveways, laneways and access bridges, or any other means of access on to the job site shall be fully restored to their former condition at the Contractor's expense. Before authorizing Final Payment, the Town Drainage Superintendent and the Consulting Engineer shall inspect the work in order to be sure that the proper restoration has been performed. In the event that the Contractor fails to satisfactorily clean up any portion of these accesses, the Consulting Engineer shall order such cleanup to be carried out by others and the cost of same be deducted from any monies owing to the Contractor.
- k) The Contractor will be required to submit to the Town, a Certificate of Good Standing from the Workplace Safety and Insurance Board prior to the commencement of the work and the Contractor will be required to submit to the Town, a Certificate of Clearance for the project from the Workplace Safety and Insurance Board before Final Payment is made to the Contractor.
- l) The Contractor shall furnish a Performance and Maintenance Bond along with a separate Labour and Material Payment Bond within ten (10) days after notification of the execution of the Agreement by the Town. One copy of said bonds shall be bound into each of the executed sets of the Contract. Each Performance and Maintenance Bond and Labour and

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Material Payment Bond shall be in the amount of 100% of the total Tender Price. All Bonds shall be executed under corporate seal by the Contractor and a surety company, authorized by law to carry out business in the Province of Ontario. The Bonds shall be acceptable to the Town in every way and shall guarantee faithful performance of the contract during the period of the contract, including the period of guaranteed maintenance which will be in effect for twelve (12) months after substantial completion of the works.

The Tenderer shall include the cost of bonds in the unit price of the Tender items as no additional payment will be made in this regard.

- m) The Contractor shall be required, as part of this Contract, to provide Comprehensive Liability Insurance coverage for not less than \$5,000,000.00 on this project; and shall name the Town of Amherstburg and its' officials and the Consulting Engineer and their staff as additional insured under the policy. The Contractor must submit a copy of this policy to both the Town Clerk and the Consulting Engineer prior to the commencement of work.
- n) Monthly progress orders for payment shall be furnished the Contractor by the Town Drainage Superintendent. Said orders shall be for not more than 90% of the value of the work done and the materials furnished on the site. The paying of the full 90% does not imply that any portion of the work has been accepted. The remaining 10% will be paid 60 days after the final acceptance and completion of the work and payment shall not be authorized until the Contractor provides the following:
 - i) a Certificate of Clearance for the project from the Workplace Safety and Insurance Board
 - ii) proof of advertising
 - iii) a Statutory Declaration, in a form satisfactory to the Engineer and the Town, that all liabilities incurred by the Contractor and its Sub-Contractors in carrying out the Contract have been discharged and that all liens in respect of the Contract and Sub-Contracts thereunder have expired or have been satisfied, discharged or provided for by payment into Court.

The Contractor shall satisfy the Consulting Engineer or Town that there are no liens or claims against the work and that all of the requirements as per the Construction Act, 2018 and its' subsequent amendments have been adhered to by the Contractor.

- o) In the event that the Specifications, Information to Tenderers, or the Form of Agreement do not apply to a specific condition or circumstance with respect to this project, the applicable section or sections from the Canadian Construction Documents Committee C.C.D.C.2 shall govern and be used to establish the requirements of the work.
- p) Should extra work be required by the Town Drainage Superintendent or Consulting Engineer, and it is done on a time and material basis, the actual cost of the work will be paid to the Contractor with a 15% markup on the total actual cost of labour, equipment and materials needed to complete the extra work.
- q) The Contractor shall provide shop drawings of the proposed wall for decorative precast concrete block headwalls for approval by the Drainage Superintendent or Engineer prior to construction.

APPENDIX “REI-A”

STANDARD E.R.C.A. AND D.F.O.
MITIGATION REQUIREMENTS

As part of its work, the Contractor will implement the following measures that will ensure that any potential adverse effects on fish and fish habitat will be mitigated:

- Work will not be conducted at times when flows are elevated due to local rain events, storms or seasonal floods. In-water works will not be undertaken between March 15th and June 30th.
- New culverts are to be installed with a minimum 10 % embedment below the existing bottom or design bottom of the drain (whichever is lower).
- All new culverts must provide for fish passage. Typically, culvert lengths that do not exceed 15.0 metres do not create an obstruction to fish passage. Depending on the proposed culvert diameter, however, longer lengths may be allowed. Concerns with longer culverts relate to velocity, loss of riparian habitat, etc. (Note: IF longer culvert lengths are proposed, we recommend that they be reviewed with this office prior to finalizing the engineer's report. Ultimately, it is the proponent's responsibility to undertake the necessary studies to confirm that the proposed length will not be a barrier to fish passage.)
- All disturbed soils on both banks and within the channel, including spoil, must be stabilized immediately upon completion of work. The restoration of the site must be completed to a like or better condition to what existed prior to the works. The spoil material must be spread an appropriate distance from the top of the drain bank to ensure that it is not washed back into the drain.
- To prevent sediment entry into the drain, in the event of an unexpected rainfall, silt barriers and/or traps must be placed in the channel during the works and until the site has been stabilized. All sediment and erosion control measures are to be in accordance with related Ontario Provincial Standards. It is incumbent on the proponent and his/her contractors to ensure that sediment and erosion control measures are functioning properly and are maintained/upgraded as required.
- Silt or sand accumulated in the barriers/traps must be removed and stabilized on land once the site is stabilized.
- All activities, including maintenance procedures, should be controlled to prevent the entry of petroleum products, debris, rubble, concrete or other deleterious substances into the water. Vehicular refueling and maintenance should be conducted away from the water.

SECTION II
SPECIFICATIONS
FOR FISH SALVAGE

GENERAL
SECTION 201

The Work shall include the capture, salvage and release of fish that are trapped or stranded as the result of the Contractor's operations, at locations identified in the Fish Salvage Plan, and in co-operation with the Essex Region Conservation Authority (E.R.C.A.).

Fish capture shall be performed prior to dewatering, and in such manner that will minimize the injury to the fish.

MATERIALS
SECTION 202

All materials required for fish capture, salvage and release shall be supplied by the Contractor.

CONSTRUCTION
SECTION 203

The Contractor shall not commence any fish capture, salvage and release work until the Fish Salvage Plan has been accepted by the Consultant and the Conservation Authority. All work shall be performed in accordance with the Fish Salvage Plan unless otherwise determined by the Consultant or the Conservation Authority.

The Contractor shall ensure an ice-free pool is maintained throughout all fish capture and release operations.

All fish shall be captured within the area specified and released at an acceptable location in the downstream water body. Fish shall be captured by electro fishing, netting, seining, trapping, or other method acceptable to the Consultant and/or the Conservation Authority.

MEASUREMENT AND PAYMENT
SECTION 204

Payment for this Work will be included in the price bid for drainage work components or made at the lump sum price bid for "Fish Capture and Release". The lump sum price will be considered full compensation for all labour, materials, equipment, tools, and incidentals necessary to complete the Work to the satisfaction of the Consultant.

Measures to Avoid Causing Harm to Fish and Fish Habitat

If you are conducting a project near water, it is your responsibility to ensure you avoid causing [serious harm to fish](#) in compliance with the *Fisheries Act*. The following advice will help you avoid causing harm and comply with the *Act*.

PLEASE NOTE: This advice applies to all project types and replaces all “Operational Statements” previously produced by DFO for different project types in all regions.

Measures

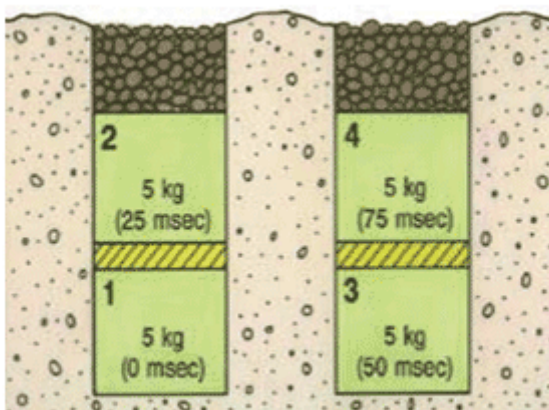
- Time work in water to respect [timing windows](#) to protect fish, including their eggs, juveniles, spawning adults and/or the organisms upon which they feed.
- Minimize duration of in-water work.
- Conduct instream work during periods of low flow, or at low tide, to further reduce the risk to fish and their habitat or to allow work in water to be isolated from flows.
- Schedule work to avoid wet, windy and rainy periods that may increase erosion and sedimentation.
- Design and plan activities and works in waterbody such that loss or disturbance to aquatic habitat is minimized and sensitive spawning habitats are avoided.
- Design and construct approaches to the waterbody such that they are perpendicular to the watercourse to minimize loss or disturbance to riparian vegetation.
- Avoid building structures on meander bends, braided streams, alluvial fans, active floodplains or any other area that is inherently unstable and may result in erosion and scouring of the stream bed or the built structures.
- Undertake all instream activities in isolation of open or flowing water to maintain the natural flow of water downstream and avoid introducing sediment into the watercourse.
- Plan activities near water such that materials such as paint, primers, blasting abrasives, rust solvents, degreasers, grout, or other chemicals do not enter the watercourse.
- Develop a response plan that is to be implemented immediately in the event of a sediment release or spill of a deleterious substance and keep an emergency spill kit on site.
- Ensure that building material used in a watercourse has been handled and treated in a manner to prevent the release or leaching of substances into the water that may be deleterious to fish.

- Develop and implement an Erosion and Sediment Control Plan for the site that minimizes risk of sedimentation of the waterbody during all phases of the project. Erosion and sediment control measures should be maintained until all disturbed ground has been permanently stabilized, suspended sediment has resettled to the bed of the waterbody or settling basin and runoff water is clear. The plan should, where applicable, include:
 - Installation of effective erosion and sediment control measures before starting work to prevent sediment from entering the water body.
 - Measures for managing water flowing onto the site, as well as water being pumped/diverted from the site such that sediment is filtered out prior to the water entering a waterbody. For example, pumping/diversion of water to a vegetated area, construction of a settling basin or other filtration system.
 - Site isolation measures (e.g., silt boom or silt curtain) for containing suspended sediment where in-water work is required (e.g., dredging, underwater cable installation).
 - Measures for containing and stabilizing waste material (e.g., dredging spoils, construction waste and materials, commercial logging waste, uprooted or cut aquatic plants, accumulated debris) above the high water mark of nearby waterbodies to prevent re-entry.
 - Regular inspection and maintenance of erosion and sediment control measures and structures during the course of construction.
 - Repairs to erosion and sediment control measures and structures if damage occurs.
 - Removal of non-biodegradable erosion and sediment control materials once site is stabilized.
- Clearing of riparian vegetation should be kept to a minimum: use existing trails, roads or cut lines wherever possible to avoid disturbance to the riparian vegetation and prevent soil compaction. When practicable, prune or top the vegetation instead of grubbing/uprooting.
- Minimize the removal of natural woody debris, rocks, sand or other materials from the banks, the shoreline or the bed of the waterbody below the ordinary high water mark. If material is removed from the waterbody, set it aside and return it to the original location once construction activities are completed.
- Immediately stabilize shoreline or banks disturbed by any activity associated with the project to prevent erosion and/or sedimentation, preferably through re-vegetation with native species suitable for the site.
- Restore bed and banks of the waterbody to their original contour and gradient; if the original gradient cannot be restored due to instability, a stable gradient that does not obstruct fish passage should be restored.
- If replacement rock reinforcement/armouring is required to stabilize eroding or exposed areas, then ensure that appropriately-sized, clean rock is used; and that rock is installed at a similar slope to maintain a uniform bank/shoreline and natural stream/shoreline alignment.
- Remove all construction materials from site upon project completion.

- Ensure that all in-water activities, or associated in-water structures, do not interfere with fish passage, constrict the channel width, or reduce flows.
- Retain a qualified environmental professional to ensure applicable permits for relocating fish are obtained and to capture any fish trapped within an isolated/enclosed area at the work site and safely relocate them to an appropriate location in the same waters. Fish may need to be relocated again, should flooding occur on the site.
- Screen any water intakes or outlet pipes to prevent entrainment or impingement of fish. Entrainment occurs when a fish is drawn into a water intake and cannot escape. Impingement occurs when an entrapped fish is held in contact with the intake screen and is unable to free itself.
 - In freshwater, follow these measures for design and installation of intake end of pipe fish screens to protect fish where water is extracted from fish-bearing waters:
 - Screens should be located in areas and depths of water with low concentrations of fish throughout the year.
 - Screens should be located away from natural or artificial structures that may attract fish that are migrating, spawning, or in rearing habitat.
 - The screen face should be oriented in the same direction as the flow.
 - Ensure openings in the guides and seals are less than the opening criteria to make “fish tight”.
 - Screens should be located a minimum of 300 mm (12 in.) above the bottom of the watercourse to prevent entrainment of sediment and aquatic organisms associated with the bottom area.
 - Structural support should be provided to the screen panels to prevent sagging and collapse of the screen.
 - Large cylindrical and box-type screens should have a manifold installed in them to ensure even water velocity distribution across the screen surface. The ends of the structure should be made out of solid materials and the end of the manifold capped.
 - Heavier cages or trash racks can be fabricated out of bar or grating to protect the finer fish screen, especially where there is debris loading (woody material, leaves, algae mats, etc.). A 150 mm (6 in.) spacing between bars is typical.
 - Provision should be made for the removal, inspection, and cleaning of screens.
 - Ensure regular maintenance and repair of cleaning apparatus, seals, and screens is carried out to prevent debris-fouling and impingement of fish.
 - Pumps should be shut down when fish screens are removed for inspection and cleaning.
- Avoid using explosives in or near water. Use of explosives in or near water produces shock waves that can damage a fish swim bladder and rupture internal organs. Blasting vibrations may also kill or damage fish eggs or larvae.
 - If explosives are required as part of a project (e.g., removal of structures such as piers, pilings, footings; removal of obstructions such as beaver dams; or preparation of a river or lake bottom for installation of a structure such as a dam or water intake), the potential for impacts to fish and fish habitat should be minimized by implementing the following measures:

- Time in-water work requiring the use of explosives to prevent disruption of vulnerable fish life stages, including eggs and larvae, by adhering to appropriate fisheries [timing windows](#).
- Isolate the work site to exclude fish from within the blast area by using bubble/air curtains (i.e., a column of bubbled water extending from the substrate to the water surface as generated by forcing large volumes of air through a perforated pipe/hose), cofferdams or aquadams.
- Remove any fish trapped within the isolated area and release unharmed beyond the blast area prior to initiating blasting
- Minimize blast charge weights used and subdivide each charge into a series of smaller charges in blast holes (i.e., decking) with a minimum 25 millisecond (1/1000 seconds) delay between charge detonations (see Figure 1).
- Back-fill blast holes (stemmed) with sand or gravel to grade or to streambed/water interface to confine the blast.
- Place blasting mats over top of holes to minimize scattering of blast debris around the area.
- Do not use ammonium nitrate based explosives in or near water due to the production of toxic by-products.
- Remove all blasting debris and other associated equipment/products from the blast area.

Figure 1: Sample Blasting Arrangement



Per Fig. 1: 20 kg total weight of charge; 25 msecs delay between charges and blast holes; and decking of charges within holes.

- Ensure that machinery arrives on site in a clean condition and is maintained free of fluid leaks, invasive species and noxious weeds.

- Whenever possible, operate machinery on land above the high water mark, on ice, or from a floating barge in a manner that minimizes disturbance to the banks and bed of the waterbody.
- Limit machinery fording of the watercourse to a one-time event (i.e., over and back), and only if no alternative crossing method is available. If repeated crossings of the watercourse are required, construct a temporary crossing structure.
- Use temporary crossing structures or other practices to cross streams or waterbodies with steep and highly erodible (e.g., dominated by organic materials and silts) banks and beds. For fording equipment without a temporary crossing structure, use stream bank and bed protection methods (e.g., swamp mats, pads) if minor rutting is likely to occur during fording.
- Wash, refuel and service machinery and store fuel and other materials for the machinery in such a way as to prevent any deleterious substances from entering the water.

Date modified:
2013-11-25

APPENDIX “REI-B”



TOWN OF AMHERSTBURG

ADDITIONAL MITIGATION MEASURES FOR SNAKE SPECIES

16. Training and Required On Site Materials for Snakes

16.1. The Municipality will ensure any person:

- (a) involved in the capture, temporary holding, transfer and release of any snake Species has received training in proper snake handling procedures; and
- (b) who undertakes an Activity has a minimum of two Holding Tubs and cotton sacks on site at all times.

17. Activities undertaken in Sensitive Areas and Sensitive Periods for Snakes

17.1. Where a proposed Activity involves physical infrastructure (e.g., culverts, pump houses, etc.) and will occur in a Sensitive Area for any snake Species and during a *Sensitive Period – Hibernation* for that Species, the Municipality shall undertake the Activity outside of the Sensitive Period, unless otherwise authorized by and in accordance with any site-specific measures provided in writing by the MNR Designated Representative.

17.2. Where a proposed Activity will occur at or adjacent to a known hibernacula (as identified by the MNR) for any snake Species and during a *Sensitive Period – Staging* for that Species, the Municipality shall:

- (a) erect effective temporary snake barriers approved by the MNR that will not pose a risk of entanglement for snakes and that shall be secured so that individual snakes may not pass over or under the barrier or between any openings to enter or re-enter the Work Zone;
- (b) inspect the temporary snake barriers daily during periods when snakes are active, capture any individuals incidentally encountered within the area bounded by the snake barrier and release the captured individuals in accordance with section 21.1; and
- (c) remove the temporary snake barriers immediately upon completion of the Activity.

17.3. Where a proposed Activity that does not involve physical infrastructure will occur in a Sensitive Area for any snake Species and during a *Sensitive Period – Staging* for that Species, the Municipality shall undertake the Activity outside of the Sensitive Period, unless otherwise authorized by and in accordance with any site-specific measures provided in writing by the MNR Designated Representative.

18. Measures for Encounters with Snakes During a Sensitive Period

18.1. Where one or more individuals belonging to a snake Species is encountered, or should an active hibernacula be uncovered, while conducting an Activity in any part of a Work Zone (including, but not limited to, a Sensitive Area) during a Sensitive Period for that Species, the Municipality shall:

- (a) capture and transfer all injured and uninjured individual snakes of that Species into individual light-coloured, drawstring cotton sacks;
- (b) place all cotton sacks filled with the captured individuals into a Holding Tub;
- (c) ensure that the Holding Tub with the captured individuals is stored at a cool temperature to protect the snakes from freezing until the individuals can be retrieved or transferred;
- (d) if an active hibernacula is uncovered, cease all Activities at the hibernacula site; and
- (e) immediately Contact the MNR to seek direction and to arrange for the transfer and/or retrieval.

19. Measures for Encounters with Snake Nests

19.1. Where an active nest of any of the snake Species is encountered and disturbed while undertaking an Activity in any part of a Work Zone, the Municipality shall:

- (a) collect any displaced or damaged eggs and transfer them to a Holding Tub;
- (b) capture and transfer all injured dispersing juveniles of that Species into a light coloured drawstring cotton sack;
- (c) place all cotton sacks with the captured injured individuals into a Holding Tub;
- (d) ensure that the Holding Tub with the captured injured individuals is stored out of direct sunlight;
- (e) immediately Contact the MNR to seek direction and to arrange for the transfer of the injured individuals;
- (f) immediately stop any disturbance to the nest site and loosely cover exposed portions with soil or organic material to protect the integrity of the remaining individuals;
- (g) not drive any equipment over the nest site or conduct any Activities within 5 metres of the nest site;
- (h) not place any dredged materials removed from the Drainage Works on top of the nest site;
- (i) mark out the physical location of the nest site but not by any means that might increase the susceptibility of the nest to predation or poaching; and
- (j) where there are no collected eggs or captured individuals, Contact the MNR within 72 hours to provide information on the location of the nest site.

20. Measures for Encounters with Snakes Outside of a Sensitive Period

20.1. Where one or more individuals belonging to a snake Species is encountered while undertaking an Activity in any part of a Work Zone (including, but not limited to, a Sensitive Area) but outside of any Sensitive Period for that Species, the Municipality shall:

- (a) follow the requirements in section 16;
- (b) briefly stop the Activity for a reasonable period of time to allow any uninjured individual snakes of that Species to leave the Work Zone;
- (c) if the individuals do not leave the Work Zone after the Activity is briefly stopped in accordance with (b) above, capture all uninjured individuals and release them in accordance with section 21.1;
- (d) where circumstances do not allow for the immediate release of captured uninjured individuals, they may be transferred into individual, light-coloured, drawstring cotton sacks before placing them in a Holding Tub which shall be stored out of direct sunlight for a maximum of 24 hours before releasing them in accordance with section 21.1;
- (e) capture and transfer any individuals injured as a result of conducting the Activities into a Holding Tub separate from any Holding Tub containing uninjured individuals; and
- (f) store all captured injured individuals out of direct sunlight and immediately Contact the MNR to seek direction and to arrange for their transfer.

21. Release of Captured Individuals Outside of a Sensitive Period

21.1. Where uninjured individuals are captured under section 20.1, they shall be released:

- (a) within 24 hours of capture;
- (b) in an area immediately adjacent to the Drainage Works where there is natural vegetation cover;
- (c) in an area that will not be further impacted by the undertaking of any Activity; and
- (d) not more than 250 metres from the capture site.

21.2. Following a release under section 21.1, the Municipality shall Contact the MNR within 72 hours of the release to provide information on the name of the Drainage Works, the location of the encounter and the location of the release site.

22. Measures for Dead Snakes

22.1. Where one or more individuals belonging to a snake Species is killed as a result of an Activity in a Work Zone, or if a person undertaking an Activity finds a deceased individual of a snake Species within the Work Zone, the Municipality shall:

- (a) collect and transfer any dead individuals into a Holding Tub outside of direct sunlight; and
- (b) Contact the MNR within 72 hours to seek direction and to arrange for the transfer of the carcasses of the dead individuals.



TOWN OF AMHERSTBURG

ADDITIONAL MITIGATION MEASURES FOR TURTLE SPECIES

9. Training and Required On Site Materials for Turtles

9.1. The Municipality will ensure any person:

- (a) involved in the capture, temporary holding, transfer and release of any turtle Species has received training in proper turtle handling procedures; and
- (b) who undertakes an Activity has a minimum of two Holding Tubs and cotton sacks on site at all times.

10. Activities undertaken in Sensitive Areas and Sensitive Periods for Turtles

10.1. Subject to section 10.2, where a proposed Activity will occur in a Sensitive Area for any Turtle Species and during a Sensitive Period for that Species, the Municipality shall:

- (a) not undertake any Activities that include the excavation of sediment or disturbance to banks during the applicable Sensitive Period unless otherwise authorized;
- (b) undertake Activities in accordance with any additional site-specific measures provided in writing by the MNR Designated Representative;
- (c) avoid draw-down and de-watering of the Sensitive Area during the applicable Sensitive Period; and
- (d) if authorized by the MNR Designated Representative under (a) above to undertake Activities that include excavation of sediment or disturbance of banks, in addition to any other measures required under (b) above, ensure any person undertaking an Activity has at least two Holding Tubs on site at all times.

10.2. Section 10.1 does not apply where the applicable Drainage Works are:

- (a) in a naturally dry condition;
- (b) classified as a Class F drain in DFO's *Class Authorization System for the Maintenance of Agricultural Municipal Drains in Ontario* (ISBN 0-662-72748-7); or
- (c) a closed drain.

11. Measures for Encounters with Turtles During a Sensitive Period

11.1. Where one or more individuals belonging to a turtle Species is encountered in the undertaking of an Activity in any part of a Work Zone (including, but not limited to, a Sensitive Area) during a Sensitive Period for that Species, the Municipality shall:

- (a) capture and transfer all uninjured individuals of that Species into a Holding Tub;
- (b) capture and transfer all individuals injured as a result of the Activities into a Holding Tub separate from any Holding Tub containing uninjured individuals;
- (c) ensure that the Holding Tubs with the captured individuals are stored at a cool temperature to prevent freezing until the individuals can be transferred; and
- (d) immediately Contact the MNR to seek direction and to arrange for the transfer of the individual turtles.

12. Measures for Encounters with Turtles Laying Eggs or Nest Sites

12.1. Where one or more individuals belonging to a turtle Species laying eggs, or an active nest site of any turtle Species, is encountered in undertaking an Activity in a Work Zone, the Municipality shall:

- (a) not disturb a turtle encountered laying eggs and not conduct any Activities within 20 metres of the turtle while it is laying eggs;
- (b) collect any displaced or damaged eggs and capture any injured dispersing juveniles and transfer them to a Holding Tub;
- (c) store all captured injured individuals and collected eggs out of direct sunlight;
- (d) immediately Contact the MNR to seek direction and to arrange for the transfer of any injured individuals and eggs;
- (e) immediately stop any disturbance to the nest site and recover exposed portions with soil or organic material to protect the integrity of the remaining individuals;
- (f) not drive any equipment over the nest site or conduct any Activities within 5 metres of the nest site;
- (g) not place any dredged materials removed from the Drainage Works on top of the nest site;
- (h) mark out the physical location of the nest site for the duration of the project but not by any means that might increase the susceptibility of the nest to predation or poaching; and
- (i) where there are no collected eggs or captured individuals, record relevant information and Contact the MNR within 72 hours to provide information on the location of the nest site.

13. Measures for Encounters with Turtles Outside of a Sensitive Period

13.1. Where one or more individuals belonging to a turtle Species is encountered while undertaking an Activity in any part of a Work Zone (including, but not limited to, a Sensitive Area) but outside of any Sensitive Period for that Species, the Municipality shall:

- (a) briefly stop the Activity for a reasonable period of time to allow any uninjured individual turtles of that Species to leave the Work Zone;
- (b) where individuals do not leave the Work Zone after the Activity is briefly stopped in accordance with (a) above, capture all uninjured individuals and release them in accordance with section 14.1;
- (c) where circumstances do not allow for their immediate release, transfer captured uninjured individuals for a maximum of 24 hours into a Holding Tub which shall be stored out of direct sunlight and then release them in accordance with section 14.1;
- (d) capture and transfer any individuals that have been injured into a Holding Tub separate from any Holding Tub containing uninjured individuals; and
- (e) store all captured injured individuals out of direct sunlight and immediately Contact the MNR to seek direction and to arrange for their transfer.

14. Release of Captured Individuals Outside of a Sensitive Period

14.1. Where uninjured individuals are captured under section 13.1, they shall be released:

- (a) within 24 hours of capture;
- (b) in an area immediately adjacent to the Drainage Works;
- (c) in an area that will not be further impacted by the undertaking of any Activity;
- and
- (d) not more than 250 metres from the capture site.

14.2. Following a release under section 14.1, the Municipality shall Contact the MNR within 72 hours of the release to provide information on the name of the Drainage Works, the location of the encounter and the location of the release site.

15. Measures for Dead Turtles

15.1. Where one or more individuals of a turtle Species is killed as a result of an Activity in a Work Zone, or if a person undertaking an Activity finds a deceased individual of a turtle Species within the Work Zone, the Municipality shall:

- (a) place any dead turtles in a Holding Tub outside of direct sunlight; and
- (b) Contact the MNR within 72 hours to seek direction and to arrange for the transfer of the dead individuals.

SNAKES OF ONTARIO IDENTIFIER

An identification guide to the Massasauga Rattlesnake and other Ontario snakes.

Recovery through education and conservation.

This guide will help you identify the Massasauga Rattlesnake and other snakes in Ontario. The Massasauga is one of five Ontario snakes with blotches. Snakes on this identifier are grouped by appearance (blotched, striped and no pattern). When you see a snake, look at its size and pattern. Does it have blotches, stripes, or no pattern?

Snakes are illustrated at quarter-life size. These snakes are not found in all Ontario regions. Consult a field guide for maps of snakes in your area. The size of snakes includes U.S. populations as listed in 'Conant, Roger and Joseph T. Collins. 1991 *A Field Guide to Reptiles and Amphibians of Eastern and Central North America*. 3rd edition. Houghton Mifflin Co. Boston'



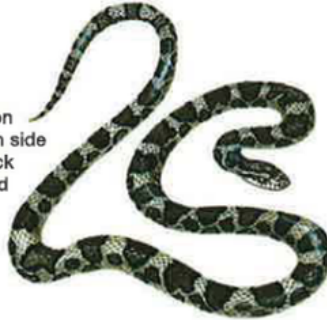
For information on the Toronto Zoo's Rattlesnake Workshop write to:

Toronto Zoo - Rattlesnakes
361-A Old Finch Ave.
Scarborough, ON, CANADA M1B 5K7
email: alentin@torontozoo.ca
Visit the Massasauga Rattlesnake Recovery Team website: www.massasauga.ca

Milk

Lampropeltis triangulum

- 61-90 cm; record 132.1 cm
- Cream, tan, or light grey with red or dark brown black-bordered blotches or rings on back alternating with blotches along each side
- Young have red blotches bordered in black
- Blotch on neck may appear Y or V shaped
- Belly whitish with black checkerboard pattern
- Scales smooth; anal scale single
- Lays eggs
- SPECIAL CONCERN (COSEWIC); SPECIAL CONCERN (OMNR)



Blotched Phase

Eastern Hog-nosed

Heterodon platirhinos

- 51-84 cm; record 115.6 cm
- Large dark blotches down back alternating with smaller blotches along sides
- When threatened, spreads neck to display darker neck pattern and will roll over to play dead
- Can be blotched phase, plain grey, green-brown or even black
- Heavy-bodied
- Flat head with upturned snout
- Belly yellow-grey with greenish grey pattern
- Underside of tail lighter colour than body
- Scales keeled; anal scale divided
- Lays eggs
- THREATENED (COSEWIC); THREATENED (OMNR)



Northern Water

Nerodia sipedon sipedon

- 61-106.7 cm; record 140.5 cm
- Well patterned individuals have reddish brown squarish blotches down back with row of alternating blotches along each side
- At front of body, some blotches extend as saddles over back and on to sides
- Pattern on older individuals may be obscured and they appear black or brown
- Usually found in or near water
- Belly cream with irregular rows of reddish half moon crescents
- Scales keeled; anal scale divided
- Gives birth to live young



Lake Erie Water

Nerodia sipedon insularum

- 61-106.7 cm; record 140.5 cm
- A sub-species of the more wide spread Northern Water snake
- Range from uniformly grey with no markings to dark grey-brown with some banding
- Only found at western end of Lake Erie and on Pelee and surrounding islands
- Belly whitish yellow to grey
- Scales keeled; anal scale divided
- Gives birth to live young
- ENDANGERED (COSEWIC); ENDANGERED (OMNR)



Juvenile Fox

- Grey with reddish brown blotches edged in black
- Dark bar across snout and from eye to jaw



Eastern Fox

Elaphe gloydi

- 91-137 cm; record 179.1 cm (large snake)
- Yellow-brown with large brown or black blotches on back that alternate with smaller blotches along sides
- May have red-brown head
- Belly yellow with black checkerboard pattern
- Scales weakly keeled; anal scale divided
- Lays eggs
- THREATENED (COSEWIC); THREATENED (OMNR)

Massasauga Rattlesnake

Sistrurus catenatus

- Ontario's only venomous snake
- 47.2-76 cm; record 100.3 cm
- Grey to brownish grey with darker blotches along back and several rows of alternating blotches along sides; blotches edged in white
- Black snakes with no pattern, very rare
- Pit on each side of head between eye and nostril
- Distinct segmented rattle
- Tail thick, squarish; does not taper to a point like all others
- Does not always rattle a warning; relies on pattern and remaining motionless to go undetected
- Heavy bodied; often found coiled
- Belly black
- Scales keeled; anal scale single
- Gives birth to live young
- THREATENED (COSEWIC); THREATENED (OMNR)



DeKay's Brown

Storeria dekayi

- 23-33 cm; record 49.2 cm (small snake)
- Light grey-brown to red-brown
- Two rows of spots along light coloured stripe on back
- Rows of spots may be joined by narrow lines
- Dark downward bar on side of head
- Juveniles have three yellowish spots on neck
- Belly cream or pinkish
- Scales keeled; anal scale divided
- Gives birth to live young

Northern Red-bellied

Storeria occipitomaculata occipitomaculata

- 20.3-25.4 cm; record 40.6 cm (small snake)
- Reddish brown to grey-brown in colour
- Three light brown or yellow spots on neck
- Orange-red belly; few dark spots may be present
- Scales keeled; anal scale divided
- Gives birth to live young

Smooth Green

Opheodrys vernalis

- 30.3-51 cm; record 66 cm
- Bright green and shiny
- Belly white or yellow
- Scales smooth; anal scale divided
- Lays eggs

Ring-necked

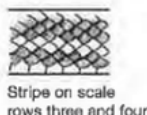
Diadophis punctatus

- 25.4-38 cm; record 70.6 cm
- Shiny steel blue, slate or brown in colour
- Neck ring and belly orange-yellow
- Scales adjacent to neck ring darker
- Belly has interrupted row of small black spots
- Scales smooth; anal scale divided
- Lays eggs

Eastern Ribbon

Thamnophis sauritus

- 45.7-66 cm; record 96.5 cm
- Black with 3 yellow stripes
- Lateral stripes on scale rows 3 and 4
- Distinct white half-moon spot in front of eye
- May have brown colour along each side of belly
- Belly yellow-green
- Scales keeled; anal scale single
- Gives birth to live young
- SPECIAL CONCERN (COSEWIC); SPECIAL CONCERN (OMNR)



Queen

Regina septemvittata

- 38-61 cm; record 92.1 cm
- Yellow-brown with yellow stripe along lower flank
- 3-5 dark stripes may be found on back
- Belly cream-yellow; brown stripes may be visible
- Usually found near rivers and marshes
- Scales keeled; anal scale divided
- Gives birth to live young
- THREATENED (COSEWIC); THREATENED (OMNR)

Eastern Garter

Thamnophis sirtalis sirtalis

- 45.7-66 cm; record 123.8 cm
- Black, green or brown with three yellow or yellow-green stripes
- Stripes may be orange or reddish in some parts of range
- Some snakes may be all black with no stripes (melanistic)
- Lateral stripes on scale rows 2 and 3
- May have dark scales or spots between stripes giving it a checkered pattern
- Belly yellowish green
- Scales keeled; anal scale single
- Gives birth to live young

Stripe on scale rows two and three



Blue Racer

Coluber constrictor foxii

- 90-152 cm; record 182.90 cm (large snake)
- Grey to greenish blue
- Head dark, throat white
- Belly light blue
- Only found on Pelee Island
- Scales smooth; anal scale divided
- Lays eggs
- ENDANGERED (COSEWIC); ENDANGERED (OMNR)

Red-sided Garter

Thamnophis sirtalis parietalis

- 41-66 cm; record 124.1 cm
- Black-brown with 3 yellow stripes
- Red bars between stripes and reddish wash on sides between scales
- Lateral stripes on scale rows 2 and 3
- Belly green-black
- In Ontario, only found along the Manitoba border
- Scales keeled; anal scale single
- Gives birth to live young

Juvenile Blue Racer

- Grey with central row of dark grey-brown blotches
- Few or no blotches on brown or grey tail
- Side of head speckled white and black

Butler's Garter

Thamnophis butleri

- 38-51 cm; record 69.2 cm
- Black or brown-green with 3 yellow stripes
- Stripes may be orange
- Lateral stripes on scale row 3 extending onto row 2 below and 4 above
- Towards back of body lateral stripe on scale rows 2 and 3
- Smallish head
- Belly green-yellow
- Only found in SW Ontario
- Scales keeled; anal scale single
- Gives birth to live young
- THREATENED (COSEWIC); THREATENED (OMNR)

Eastern Rat

Elaphe obsoleta

- 106.7-183 cm; record 256.5 cm (large snake)
- In some, faint blotched pattern may be seen
- Throat white
- Belly grey-brown wash
- Scales weakly keeled; anal scale divided
- Lays eggs
- THREATENED (COSEWIC); THREATENED (OMNR)

Juvenile Eastern Rat

- Light grey with grey-brown blotches on body and tail
- Dark bar across snout and from eye to jaw

How to count scale rows on a snake

Smooth Scales

Keeled Scales

Divided Anal Scale

Single Anal Scale

TURTLES OF ONTARIO IDENTIFIER

Illustrations are half life size.



www.torontozoo.
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361A Old Finch Ave.
Toronto, ON, Canada M1B 5K7
www.torontozoo.com



Midland painted

Chrysemys picta marginata

• 11.5-14 cm; record 19.5 cm

- Females larger than males
- Smooth, olive to brownish-grey carapace with orange-red margins
- Yellow plastron with dark central blotch
- Neck, legs and tail striped with red and yellow; yellow blotch behind each eye
- Males have very long nails on front feet
- Often seen basking on logs
- Lays 3-14 oval, white, smooth-shelled eggs



Wood

Glyptemys insculpta

• 14-20 cm; record 23.4 cm

- Brown or greyish-brown, rough, heavily sculptured carapace, often with a central keel or ridge and raised concentric growth rings on each scute
- Rear margin of carapace serrated
- Plastron is yellow with black squares
- Head black; skin brown; adults with orange or yellow on neck and legs
- Found on land (the most terrestrial turtle in Ontario) and in or near streams and wet meadows
- Lays 4-12 oval, white, thin-shelled eggs
- THREATENED (COSEWIC); ENDANGERED (OMNR)



Stinkpot

Sternotherus odoratus

• 5.1-11.5 cm; record 13.7 cm

- Small turtle with smooth, light olive to black, high-domed, narrow carapace
- Plastron is small, yellow-brown and gives little protection to legs; a hinge runs across the front of the plastron allowing it to close upward to protect the head
- Two light stripes on each side of the head
- Barbels (fleshy projections) on chin and throat
- Named for musky odour produced when handled (also known as musk turtle)
- Lays 2-5 oval, white, hard-shelled eggs
- THREATENED (COSEWIC); THREATENED (OMNR)



Western painted

Chrysemys picta bellii

• 9-18 cm; record 25.1 cm

- Light, irregular lines on olive to brownish-grey carapace
- Yellow plastron with large, dark, irregular shaped central blotch
- Often seen basking on logs
- Lays 3-20 oval, white, smooth-shelled eggs

Map

Graptemys geographica

- Male 9-15.9 cm; Female 18-27.3 cm
- Males much smaller than females
- Numerous fine yellow lines on olive green to brownish carapace, resembling a map; may be less obvious in older turtles
- Rear margin of carapace serrated
- Carapace has a slight raised area (or keel) down centre of shell
- Yellow plastron
- Yellow spot, variable in size and shape, behind each eye
- Head and limbs may have light and dark stripes
- Lays 10-16 oblong, parchment-shelled eggs
- SPECIAL CONCERN (COSEWIC); SPECIAL CONCERN (OMNR)



Blanding's

Emydoidea blandingii

• 12.5-18 cm; record 27.4 cm

- Carapace black to greyish-brown with numerous yellowish spots or streaks
- Plastron has a flexible grooved hinge that allows lower shell to close upward to protect head and legs
- Bright yellow on chin and throat
- Protruding eyes
- Domed shell obvious while basking on logs, rocks, or clumps of vegetation
- Lays 6-11 oval, dull white, hard-shelled eggs
- THREATENED (COSEWIC); THREATENED (OMNR)



Spotted

Clemmys guttata

• 9-11.5 cm; record 12.7 cm

- Smooth black carapace with bright yellow or orange spots; spots fade in older turtles
- Plastron yellow-orange with large black blotch on each scute
- Males have tan chin and brown eyes; females have yellow chin and orange eyes
- Head, neck, limbs and tail are grey to black with yellow spots; inside of legs washed with orange
- Lays 3-8 oval, leathery textured eggs
- ENDANGERED (COSEWIC); ENDANGERED (OMNR)

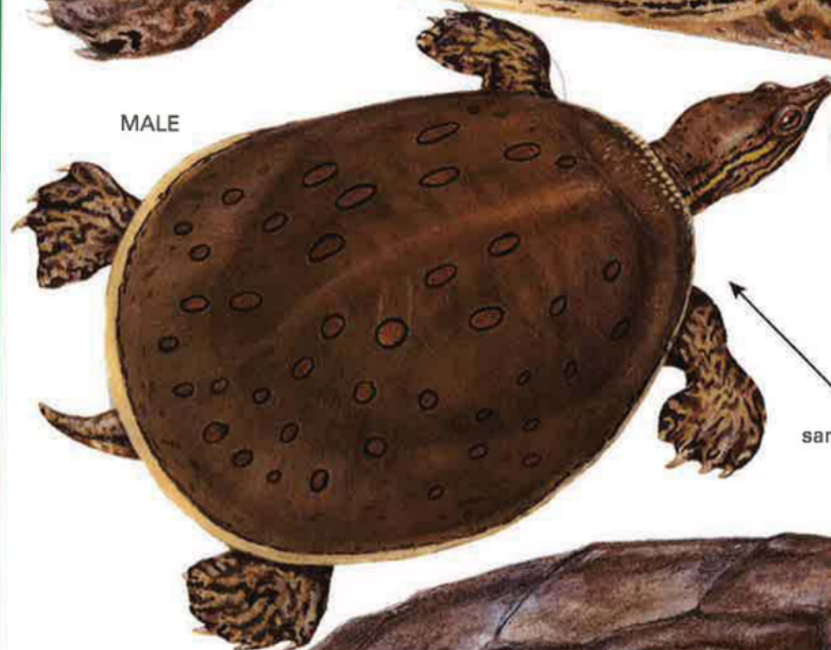


Turtles in Ontario are protected under the Fish and Wildlife Conservation Act. If you find a turtle please do not disturb it or remove it from its habitat. If you find a turtle wandering over land in spring or early summer, it is most likely a female about to lay her eggs. Watch it, love it, but leave it! We all have a roll to play in protecting wetland habitat and turtle nesting areas. Seven of eight Ontario turtles are currently at risk. Observations help to identify important turtle habitats. Submit sightings to Ontario Turtle Tally at <http://www.torontozoo.com/adoptapond/TurtleTally.asp>

These turtles are not found in all Ontario regions. Consult a field guide for maps of turtles in your area. The size of turtles includes U.S. populations as listed in: Roger Conant and Joseph T. Collins, *A Field Guide to Reptiles and Amphibians of Eastern and Central North America*, 3rd edition. Houghton Mifflin Co.: Boston, 1991.



FEMALE



MALE

same species

Eastern spiny soft shell *Apalone spinifera*

- Male 12.15-23.5 cm; Female 18-43.2 cm
- Carapace is flat and olive-grey to brown; yellow border edged in black around margin of carapace
- Males and juvenile turtles have large yellow spots outlined in black; females have brownish blotches
- Small tubercles or spines on edge of shell above neck
- Two dark bordered, light yellow lines on each side of head
- Very long neck; tubular "pig like" snout
- Often buries in sand or mud
- Lays 12-18 round, white, hard-shelled eggs
- THREATENED (COSEWIC); THREATENED (OMNR)



Snapping

Chelydra serpentina

- 20.3-36 cm; record 49.4 cm
- 4.5-16 kg; record 32 kg snapping turtle once lived at Toronto Zoo
- Carapace is light brown to black
- Young turtles have three longitudinal keels, older turtles almost smooth
- Plastron is yellowish, small, and cross-shaped; legs and skin not well protected
- Large head, two barbels on chin; rounded tubercles on neck
- Head, limbs and tail are brown
- Tail is long, same length or longer than carapace with "dinosaur-like" triangular scales projecting from the upper side
- Lays 20-40 round, ping-pong ball-like eggs
- SPECIAL CONCERN (COSEWIC)

Red-eared slider

(not illustrated)

Trachemys scripta elegans

The red-eared slider is often sold in pet stores, but is not native to Ontario. **Do not release pet turtles to the wild.** They may carry diseases that threaten our native turtles, and are not likely to survive.

- ① - scutes
- ② - serrated marginal scute
- ③ - longitudinal keel
- ④ - hinge on plastron

APPENDIX “REI-C”

STANDARD SPECIFICATIONS **FOR ACCESS BRIDGE CONSTRUCTION**

1. PRECAST CONCRETE BLOCK & CONCRETE FILLED JUTE BAG HEADWALLS

After the Contractor has set the endwall foundations and the new pipe in place, it shall completely backfill same and install new precast concrete blocks or concrete filled jute bag headwalls at the locations and parameters indicated on the drawing. All concrete used for headwalls shall be a minimum of 30 mPa at 28 days and include 6% +/- 1% air entrainment.

Precast concrete blocks shall be interlocking and have a minimum size of 600mmX600mmX1200mm. Half blocks shall be used to offset vertical joints. Cap blocks shall be a minimum of 300mm thick. A foundation comprising minimum 300mm thick poured concrete or precast blocks the depth of the wall and the full bottom width of the drain plus 450mm embedment into each drain bank shall be provided and placed on a firm foundation as noted below. The Contractor shall provide a levelling course comprising a minimum thickness of 150mm Granular "A" compacted to 100% Standard Proctor Density or 20mm clear stone, or a lean concrete as the base for the foundation. The base shall be constructed level and flat to improve the speed of installation. Equipment shall be provided as required and recommended by the block supplier for placing the blocks such as a swift lift device for the blocks and a 75mm eye bolt to place the concrete caps,. The headwall shall extend a minimum of 150mm below the invert of the access bridge culvert with the top of the headwall set to match the finished driveway grade, unless a 150mm high curb is specified at the edge of the driveway. To achieve the required top elevation, the bottom course of blocks and footing may require additional embedment into the drain bottom. The Contractor shall provide shop drawings of the proposed wall for approval by the Drainage Superintendent or Engineer prior to construction.

Blocks shall be placed so that all vertical joints are staggered. Excavation voids on the ends of each block course shall be backfilled with 20mm clear stone to support the next course of blocks above. Walls that are more than 3 courses in height shall be battered a minimum of 1 unit horizontal for every 5 units of vertical height. The batter shall be achieved by careful grading of the footing and foundation base, or use of pre-battered base course blocks. Filter cloth as specified below shall be placed behind the blocks to prevent the migration of any fill material through the joints. Backfill material shall be granular as specified below. Where the wall height exceeds 1.8 metres in height, a uni-axial geogrid SG350 or equivalent shall be used to tie back the walls and be installed in accordance with the manufacturer's recommendations. The wall face shall not extend beyond the end of the access bridge pipe. Non-shrink grout shall be used to fill any gaps between the blocks and the access bridge pipe for the full depth of the wall. The grout face shall be finished to match the precast concrete block walls as closely as possible.

When constructing the concrete filled jute bag headwalls, the Contractor shall place the bags so that the completed headwall will have a slope inward from the bottom of the pipe to the top of the finished headwall. The slope of the headwall shall be one unit horizontal to five units vertical. The Contractor shall completely backfill behind the new concrete filled jute bag headwalls with Granular "B" and Granular "A" material as per O.P.S.S. Form 1010 and the granular material shall be compacted in place to a Standard Proctor Density of 100%. The placing of the jute bag headwalls and the backfilling shall be performed in lifts simultaneously. The granular backfill shall be placed and compacted in lifts not to exceed 305mm (12") in thickness.

The concrete filled jute bag headwalls shall be constructed by filling jute bags with concrete. All concrete used to fill the jute bags shall have a minimum compressive strength of 25 MPa in 28 days and shall be provided and placed only as a wet mix. Under no circumstance shall the concrete to be used for filling the jute bags be placed as a dry mix. The jute bags, before being filled with concrete, shall have a dimension of 460mm (18") x 660mm (26"). The jute bags shall be filled with concrete so that when they are laid flat, they will be approximately 100mm (4") thick, 305mm (12") to 380mm (15") wide and 460mm (18") long.

The concrete jute bag headwall to be provided at the end of the bridge pipe shall be a single or double bag wall construction as set out in the specifications. The concrete filled bags shall be laid so that the 460mm (18") dimension is parallel with the length of the new pipe. The concrete filled jute bags shall be laid on a footing of plain concrete being 460mm (18") wide, and extending for the full length of the wall, and 305mm (12") thick extending below the bottom of the culvert pipe.

All concrete used for the footing, cap and bags shall have a minimum compressive strength of 30 mPa at 28 days and shall include 6% ± 1% air entrainment.

Upon completion of the jute bag headwall the Contractor shall cap the top row of concrete filled bags with a layer of plain concrete, minimum 100mm (4") thick, and hand trowelled to obtain a pleasing appearance. If the cap is made more than 100mm thick, the Contractor shall provide two (2) continuous 15M reinforcing bars set at mid-depth and equally spaced in

the cap. The Contractor shall fill all voids between the concrete filled jute bags and the corrugated steel pipe with concrete, particular care being taken underneath the pipe haunches to fill all voids.

The completed jute bag headwalls shall be securely embedded into the drain bank a minimum of 450mm (18") measured perpendicular to the sideslopes of the drain.

As an alternate to constructing a concrete filled jute bag headwall, the Contractor may construct a grouted concrete rip rap headwall. The specifications for the installation of a concrete filled jute bag headwall shall be followed with the exception that broken pieces of concrete may be substituted for the jute bags. The concrete rip rap shall be approximately 460mm (18") square and 100mm (4") thick and shall have two (2) flat parallel sides. The concrete rip rap shall be fully mortared in place using a mixture composed of three (3) parts of clean sharp sand and one (1) part of Portland cement.

The complete placement and backfilling of the headwalls shall be performed to the full satisfaction of the Drainage Superintendent and the Engineer.

2. QUARRIED LIMESTONE ENDWALLS

The backfill over the ends of the corrugated steel pipe shall be set on a slope of 1-½ units horizontal to 1 unit vertical from the bottom of the corrugated steel pipe to the top of each end slope and between the drain banks. The top 305mm (12") in thickness of the backfill over the ends of the corrugated steel pipe shall be quarried limestone. The quarried limestone shall also be placed on a slope of 1-½ units horizontal to 1 unit vertical from the bottom of the corrugated steel pipe to the top of each bank of the drain adjacent each end slope. The quarried limestone shall have a minimum dimension of 100mm (4") and a maximum dimension of 250mm (10"). The end slope protection shall be placed with the quarried limestone pieces carefully tamped into place with the use of a shovel bucket so that, when complete, the end protection shall be consistent, uniform, and tightly laid in place.

Prior to placing the quarried limestone end protection over the granular backfill and on the drain banks, the Contractor shall lay non-woven geotextile filter fabric "GMN160" conforming to O.P.S.S. 1860 Class I or approved equal. The geotextile filter fabric shall extend from the bottom of the corrugated steel pipe to the top of each end slope of the bridge and along both banks of the drain to a point opposite the ends of the pipe.

The Contractor shall take extreme care not to damage the geotextile filter fabric when placing the quarried limestone on top of the filter fabric.

3. BRIDGE BACKFILL

After the corrugated steel pipe has been set in place, the Contractor shall backfill the pipe with Granular "B" material, O.P.S.S. Form 1010 with the exception of the top 305mm (12") of the backfill. The top 305mm (12") of the backfill for the full width of the excavated area (between each bank of the drain) and for the top width of the driveway, shall be Granular "A" material, O.P.S.S. Form 1010. The granular backfill shall be compacted in place to a Standard Proctor Density of 100% by means of mechanical compactors. All of the backfill material, equipment used, and method of compacting the backfill material shall be inspected and approved and meet with the full satisfaction of the Drainage Superintendent and Engineer.

4. GENERAL

Prior to the work commencing, the Drainage Superintendent and Engineer must be notified, and under no circumstances shall work begin without one of them being at the site. Furthermore, the grade setting of the pipe must be checked, confirmed, and approved by the Drainage Superintendent or Engineer prior to continuing on with the bridge installation.

The alignment of the new bridge culvert pipe shall be in the centreline of the existing drain, and the placing of same must be performed totally in the dry.

Prior to the installation of the new access bridge culvert, the existing sediment build-up in the drain bottom must be excavated and completely removed. This must be done not only along the drain where the bridge culvert pipe is to be installed, but also for a distance of 3.05 metres (10 ft.) both upstream and downstream of said new access bridge culvert. When setting the new bridge culvert pipe in place it must be founded on a good undisturbed base. If unsound soil is encountered, it must be totally removed and replaced with 20mm (3/4") clear stone, satisfactorily compacted in place.

When doing the excavation work or any other portion of the work relative to the bridge installation, care should be taken not to interfere with, plug up, or damage any existing surface drains, swales, and lateral or main tile ends. Where damage is encountered, repairs to correct same must be performed immediately as part of the work.

The Contractor and/or landowner performing the bridge installation shall satisfy themselves as to the exact location, nature and extent of any existing structure, utility or other object that they may encounter during the course of the work. The Contractor shall indemnify and save harmless the Town, or the Municipality, the Engineer, and their staff from any damages which it may cause or sustain during the progress of the work. It shall not hold them liable for any legal action arising out of any claims brought about by such damage caused by it.

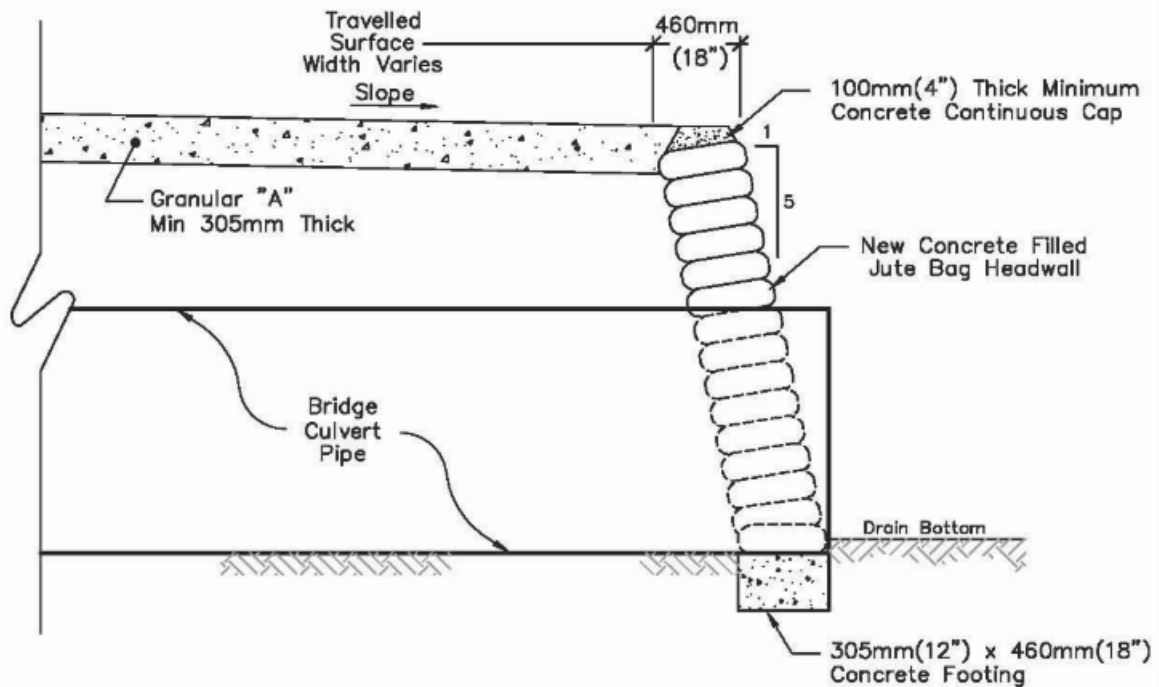
Where applicable, the Contractor and/or landowner constructing the new bridge shall be responsible for any damage caused by them to any portion of the Town road right-of-way. They shall take whatever precautions are necessary to cause a minimum of damage to same and must restore the roadway to its original condition upon completion of the works.

When working along a municipal roadway, the Contractor shall provide all necessary lights, signs, barricades and flagpersons as required to protect the public. All work shall be carried out in accordance with the requirements of the Occupational Health and Safety Act, and latest amendments thereto. If traffic control is required on this project, it is to comply with the M.T.O. Traffic Control Manual for Roadway Work Operations and Ontario Traffic Manual Book 7.

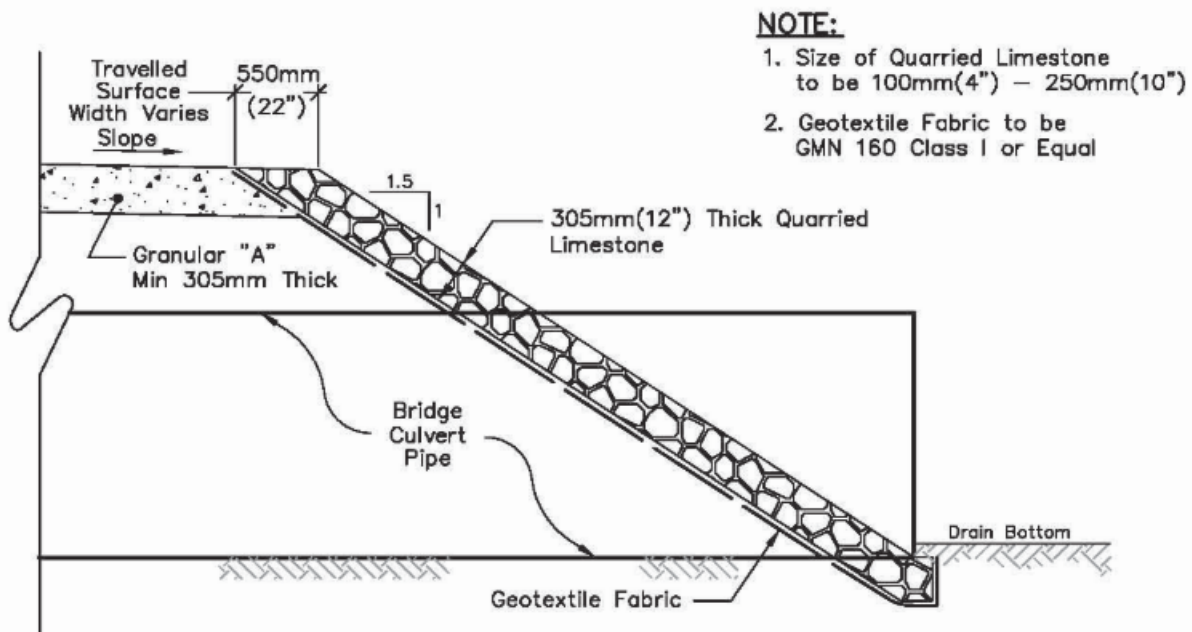
Once the bridge installation has been completed, the drain sideslopes directly adjacent the new headwalls and/or endwalls are to be completely restored including revegetation, where necessary.

All of the work required towards the installation of the bridge shall be performed in a neat and workmanlike manner. The general site shall be restored to its' original condition, and the general area shall be cleaned of all debris and junk, etc. caused by the work

All of the excavation, installation procedures, and parameters as above mentioned are to be carried out and performed to the full satisfaction of the Drainage Superintendent and Engineer.



Typical Jute Bag Headwall



NOTE:

1. Size of Quarried Limestone to be 100mm(4") – 250mm(10")
2. Geotextile Fabric to be GMN 160 Class I or Equal

Typical Quarried Limestone End Protection

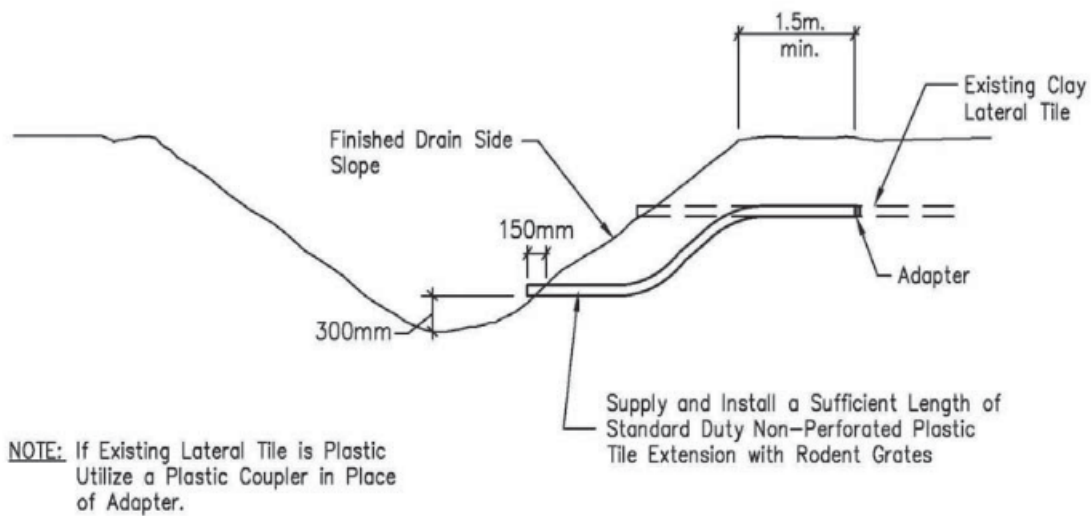
Rood Engineering Inc.

Consulting Engineers

9 Nelson Street

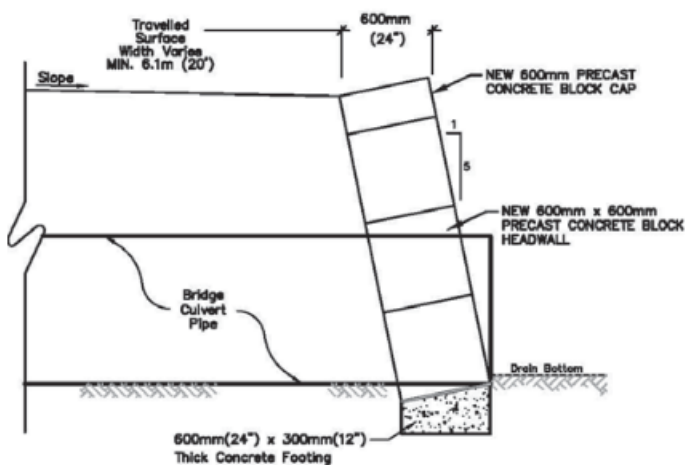
Leamington, Ontario N8H 1G6

519-322-1621



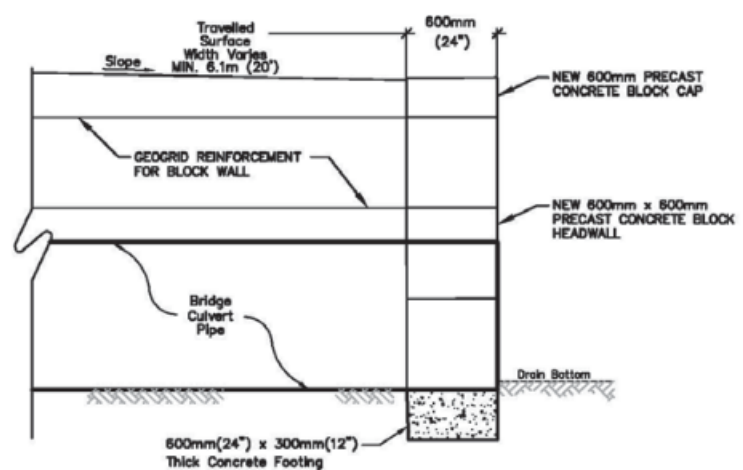
STANDARD LATERAL TILE DETAIL

N.T.S.



TYPICAL PRECAST CONCRETE BLOCK END PROTECTION

Scale = N.T.S.



TYPICAL VERTICAL PRECAST CONCRETE BLOCK END PROTECTION

Scale = N.T.S.

APPENDIX “REI-D”

SPECIAL PROVISIONS

Changes in assessment

Subsequent subdivision of land

65. (1) If, after the final revision of an engineer's assessment of land for a drainage works, the land is divided by a change in ownership of any part, the clerk of the local municipality in which the land is situate shall instruct an engineer in writing to apportion the assessment among the parts into which the land was divided, taking into account the part of the land affected by the drainage works. 2010, c. 16, Sched. 1, s. 2 (26).

Agreement on share of assessment

(2) If the owners of the subdivided land mutually agree on the share of the drainage assessment that each should pay, they may enter into a written agreement and file it with the clerk of the local municipality and, if the agreement is approved by the council by resolution, no engineer need be instructed under subsection (1). 2010, c. 16, Sched. 1, s. 2 (26).

Subsequent connection to drainage works, etc.

(3) If an owner of land that is not assessed for a drainage works subsequently connects the land with the drainage works for the purpose of drainage, or if the nature or extent of the use of a drainage works by land assessed for the drainage works is subsequently altered, the clerk of the local municipality in which the land is situate shall instruct an engineer in writing to inspect the land and assess it for a just proportion of the drainage works, taking into account any compensation paid to the owner of the land in respect of the drainage works. 2010, c. 16, Sched. 1, s. 2 (26).

Subsequent disconnection from drainage works

(4) If an owner of land that is assessed for a drainage works subsequently disconnects the land from the drainage works, the clerk of the local municipality in which the land is situate shall instruct an engineer in writing to inspect the land and determine the amount by which the assessment of the land should change. 2010, c. 16, Sched. 1, s. 2 (26).

Restriction on connection or disconnection

(5) No person shall connect to or disconnect from drainage works without the approval of the council of the municipality. 2010, c. 16, Sched. 1, s. 2 (26).

Notice of instructions

(6) The clerk of the local municipality shall send a copy of the instructions mentioned in subsection (1), (3) or (4) to the owners of the affected lands as soon as reasonably possible. 2010, c. 16, Sched. 1, s. 2 (26).

Engineer's assessment

(7) An engineer who prepares an assessment pursuant to instructions received under subsection (1), (3) or (4) shall file the assessment with the clerk of the local municipality. 2010, c. 16, Sched. 1, s. 2 (26).

Notice of assessment

(8) The clerk of the local municipality shall attach the engineer's assessment to the original assessment and send a copy of both to the owners of the affected lands. 2010, c. 16, Sched. 1, s. 2 (26).

Assessment binding

(9) Subject to subsection (11), the engineer's assessment is binding on the assessed land. 2010, c. 16, Sched. 1, s. 2 (26).

Costs

(10) The costs of the assessment, including the fees of the engineer, shall be paid by the owners of the lands in the proportion fixed by the engineer or, on appeal, by the Tribunal, and subsection 61 (4) applies to these costs. 2010, c. 16, Sched. 1, s. 2 (26).

Appeal of assessment


(11) If the engineer's assessment is for an amount greater than \$500, the owner of the land may appeal to the Tribunal within 40 days after the date the clerk sends a copy of the assessment to the owner. 2010, c. 16, Sched. 1, s. 2 (26).

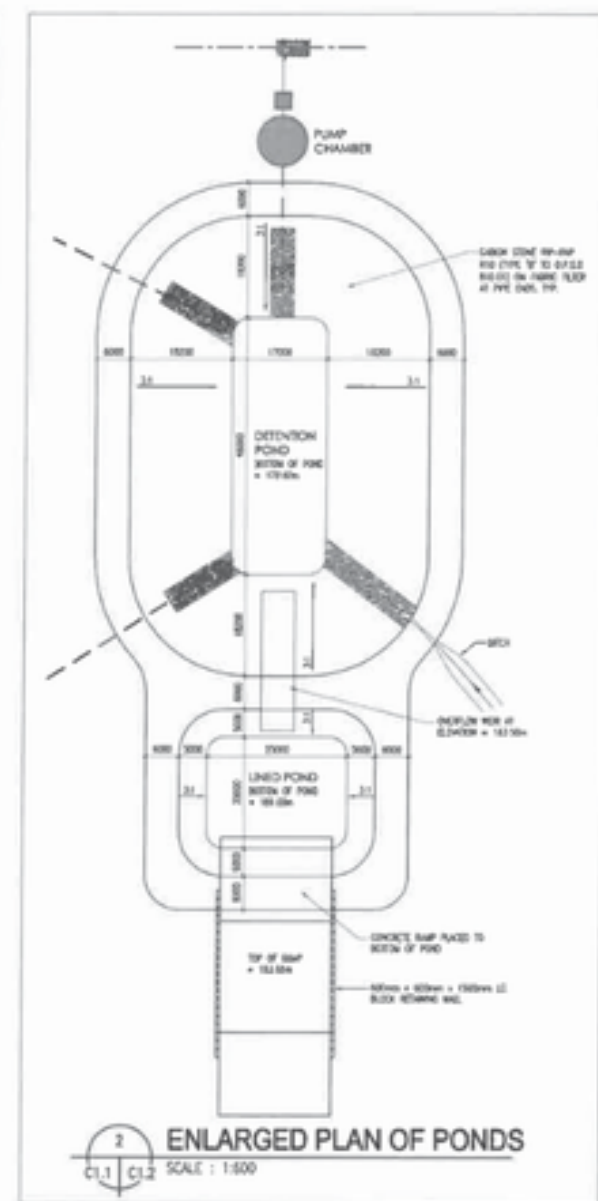
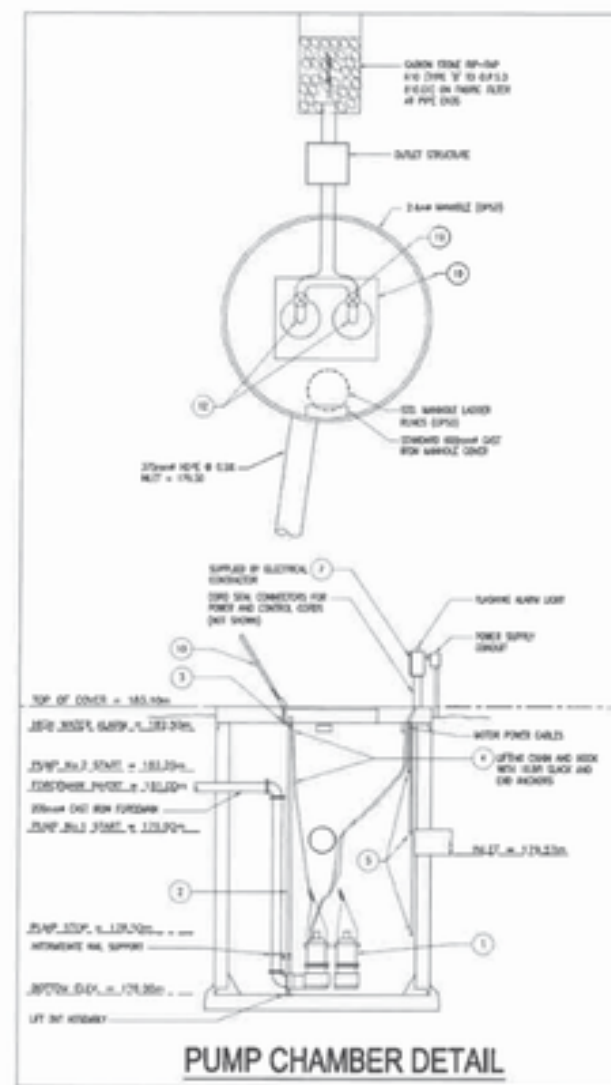
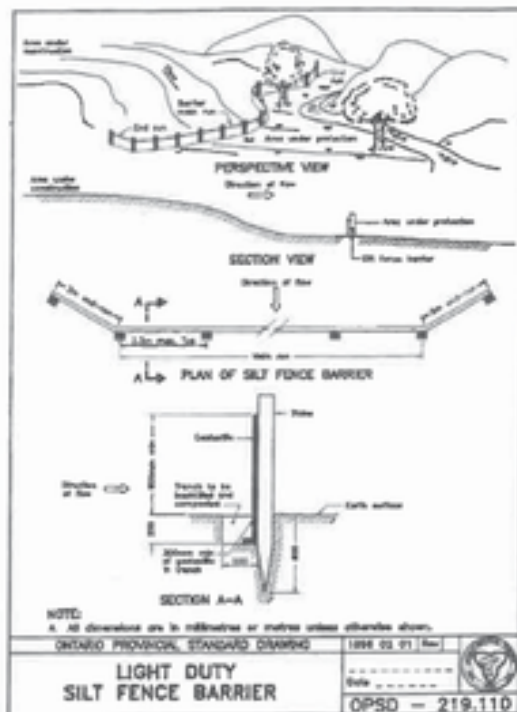
Use of amount collected

(12) Any amount collected under subsection (3) shall be credited to the account of the drainage works and shall be used only for the improvement, maintenance or repair of the whole or any part of the drainage works. 2010, c. 16, Sched. 1, s. 2 (26).


66. Repealed: 2010, c. 16, Sched. 1, s. 2 (26).



 <p>d.c. macloskey engineering ltd. 200-245 spadina street ont., toronto, ontario m5t 1s1 tel: (416) 597-8800</p>	<p>STAMP</p>	<p>DATE (dd/mm/yy)</p> <p>31/03/23</p>	<p>ISSUED FOR</p> <p>ZSA APPLICATION</p>	<p>general notes:</p> <p>1. THIS PLAN IS AN INSTRUMENT OF SERVICE ONLY AND IS THE PROPERTY OF THE ENGINEER. 2. ENGINEER SHALL NOT BE LIABLE FOR: a. CONSEQUENCES SHALL, NEVERTHELESS, BE RESPONSIBLE FOR ALL OMISSIONS AND ERRORS ON THE JOB AND THE OFFICE SHALL BE NOTIFIED OF ANY MANDATES FROM THE ENGINEERING AND CONSTRUCTION DIVISION OF THE CITY OF TORONTO. b. OMISSIONS IS LIMITED TO MANDATES IN THE GENERAL CONDITIONS PRESCRIBING CONTRACTOR'S RESPONSIBILITIES IN REGARD TO SURVEYING OF ANY OWNERSHIP. c. IN NO CASE SHALL THE ENGINEER BE REQUIRED TO RECOVER THEIR OWNERSHIP. NO RECOVERY IS ONLY TO CHECK FOR CONFORMANCE WITH DESIGN CONCEPT AND WITH THE INFORMATION GIVEN IN THE CONTRACT DOCUMENTS. d. CONTRACTORS SHALL PROVEPRIETARY KNOW THE DECISION IN WRITING OF THE ENGINEER OF ANY DECISIONS MADE BETWEEN THE CONTRACT DOCUMENTS AND ANY APPLICABLE CODES OF BY-LAWS. e. THE ENGINEER IS NOT RESPONSIBLE FOR THE CONTRACTOR'S WORK, METHODS AND OR RECHANGES IN THE CONSTRUCTION OF THIS FACILITY.</p>	<p>PROJECT</p> <p>CLASS 1 SOIL MANAGEMENT SITE</p> <p>ADDRESS : NORTH SIDE ROAD, AMHERSTBURG, ONT.</p> <p>CLIENT</p> <p>NORTHSIDE RECYCLING</p> <p>DRAWING TITLE</p> <p>SITE PLAN AND SITE SERVICING AND LOT GRADING</p>	<p>SCALE : AS NOTED</p> <p>DRAWN BY : BC/JLD</p> <p>CHECKED BY : MEM</p> <p>DATE : JAN. 2023</p> <p>PROJECT FILE NO. JAN 2023</p>	<p>DRAWING NO.</p> <p>C1.1</p>

[illegible]

ITEM #	QUANTITY	DESCRIPTION
1	2 x	100mm INDI CLUE, 151/1/10 SUBMERSIBLE PUMPS w/ A CAPACITY OF 1000 GPM (400 BOPM) @ 15 FEET HEAD (EACH PLANT) MODEL # 151000-01
2	2 x	UP/T-DOWN GUIDE RAIL, BASE ASSEMBLY
3	2 x	UPPER CLUE RAIL SUPPORT BRACKET
4	2 x	DOWN AND BASE ASSEMBLY
5	3 x	10 FT LEVEL CONTROLS
6	1 x	LEVEL CONTROL SUPPORT BRACKET
7	1 x	SUPPLY EXTERIOR CONTROL PANEL
8	1 x	DRY CONTACTS FOR REMOTE ALARM
9	1 x	THREE FLOAT CROCI/TRY WITH MANUAL RESET ALARM
10	2 x	ALUMINUM ACCESS HATCH, W&J WETSTRAUGH LTD., TYPE W - HINGED DOOR, LOCKABLE HANDLE
11	2 x	CAST IRON TWIN SOUP WATER DRAIN VALVES -W&J, 153000 -5127 IRON BODY, BRONZE GATE BY GILSON INDUSTRIES
12	-	200MM CAST IRON FORCEMAIN

 <p>d.o. modoskey engineering ltd. 10-110 sparda street sk, bratislava, slovakia sk 811 04 tel: +421 2 57 87 80 01</p>	<p>Sheet</p>	DATE (dd/mm/yy)	ISSUED FOR	<p>general notes:</p> <p>1. this sheet is an addendum to drawing no. 01 and is the property of the drawing's author, d.o. modoskey engineering ltd. and is not to be used for any other project without the written consent of the author.</p> <p>2. the author is not responsible for any errors or omissions in the drawing or for any damage or loss resulting from the use of the drawing.</p> <p>3. the author is not responsible for any damage or loss resulting from the use of the drawing.</p> <p>4. the author is not responsible for any damage or loss resulting from the use of the drawing.</p> <p>5. the author is not responsible for any damage or loss resulting from the use of the drawing.</p>	<p>PROJECT CLASS 1 SOIL MANAGEMENT SITE</p> <p>ADDRESS : NORTH SIDE ROAD, NAWBERTHILL, ONT.</p> <p>CLIENT NORTHSIDE RECYCLING</p> <p>DRAWING TITLE SECTIONS</p>	SCALE : AS NOTED	<p>DRAWING NO.</p> <p>C1.2</p>
		20/03/20	ENV APPLICATION			DRAWN BY : JC/JLD	
						CHECKED BY : MDM	
						DATE : JAN. 2023	
						PROJECT FILE NO. M22-135	

APPENDIX “REI-E”

FOR THE

(Geographic Township of Anderdon)

IN THE
COUNTY OF ESSEX • ONTARIO

Gerard Rood
GERARD ROOD, P.ENG.

**ROOD
ENGINEERING
INC.**

CONSULTING ENGINEERS
Leamington, Ontario
519-322-1621

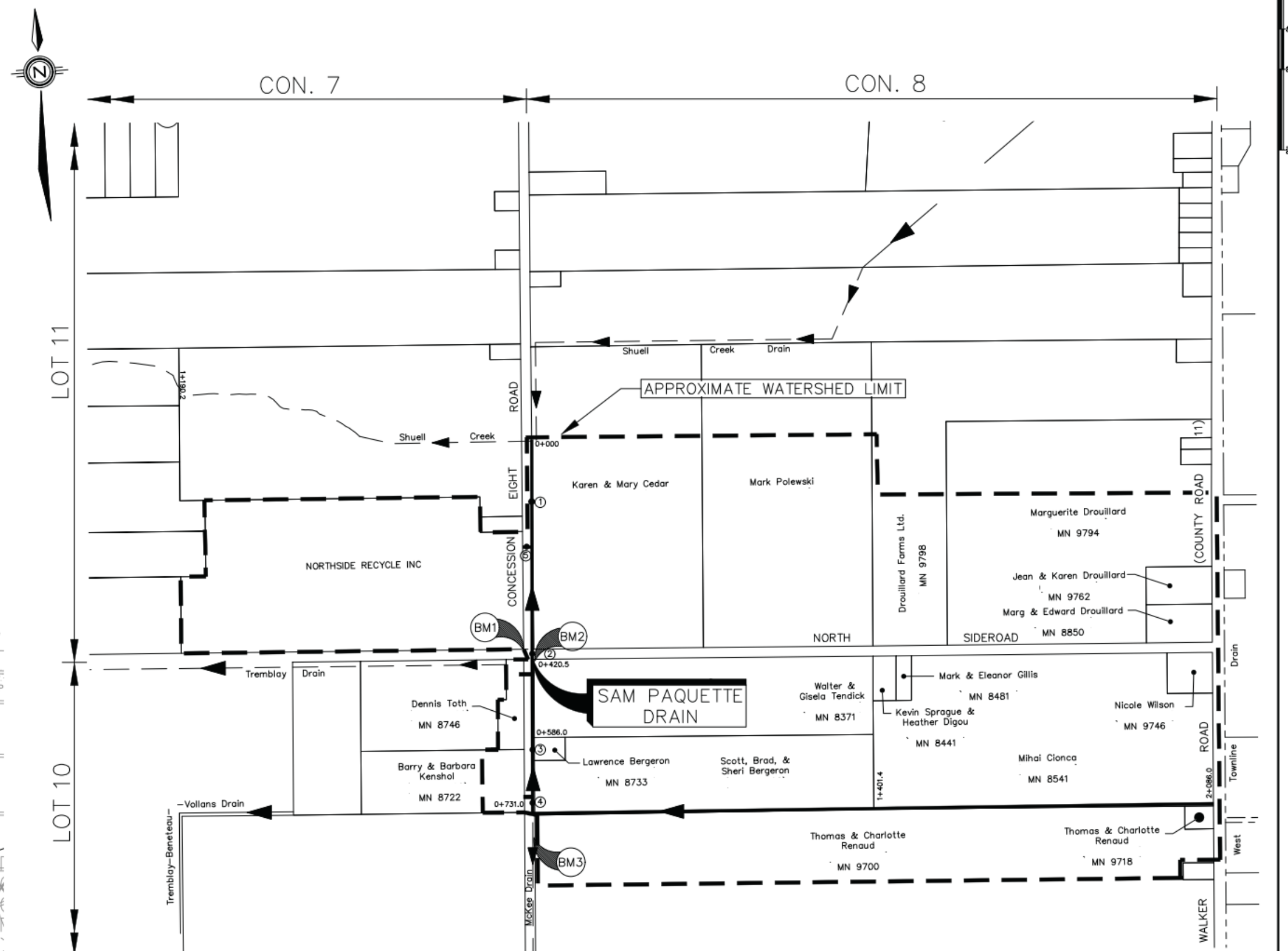
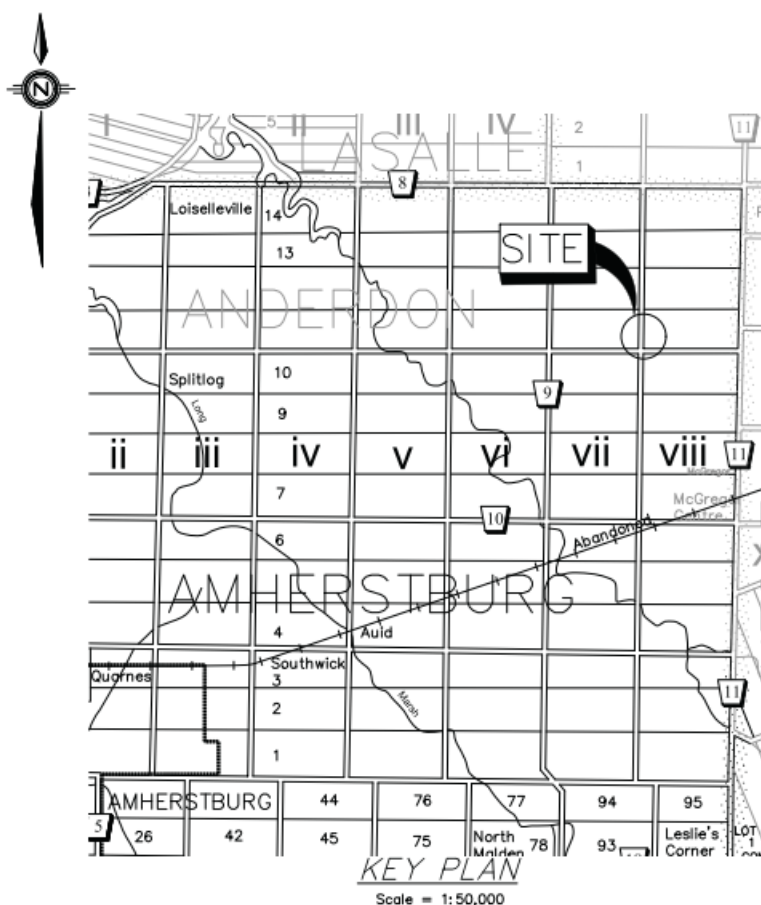
DATE: January 16th, 2025

TOWN OF AMHERSTBURG

MAYOR: MICHAEL PRUE
CLERK: KEVIN FOX
DRAINAGE
SUPERINTENDENT: SAM PAGLIA, P.ENG

BENCHMARKS:

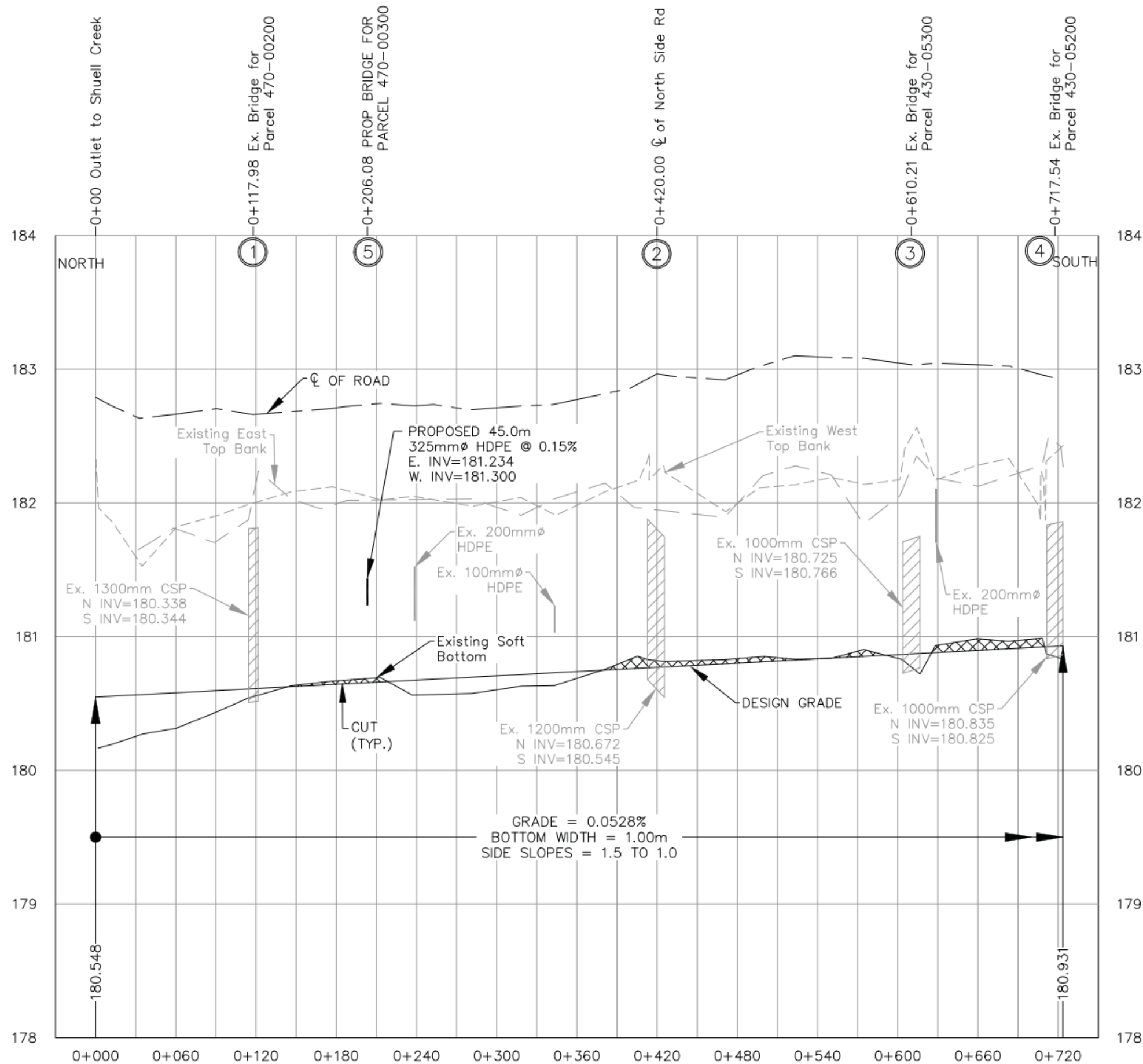
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- 3) TOP OF NAIL IN NORTH FACE OF HYDRO POLE LOCATED ON THE EAST SIDE OF THE 8th CONCESSION ROAD APPROX. 41.1M SOUTH OF BRIDGE 4 ELEV: 183.025m

WATERSHED PLAN

Scale = 1:4,000

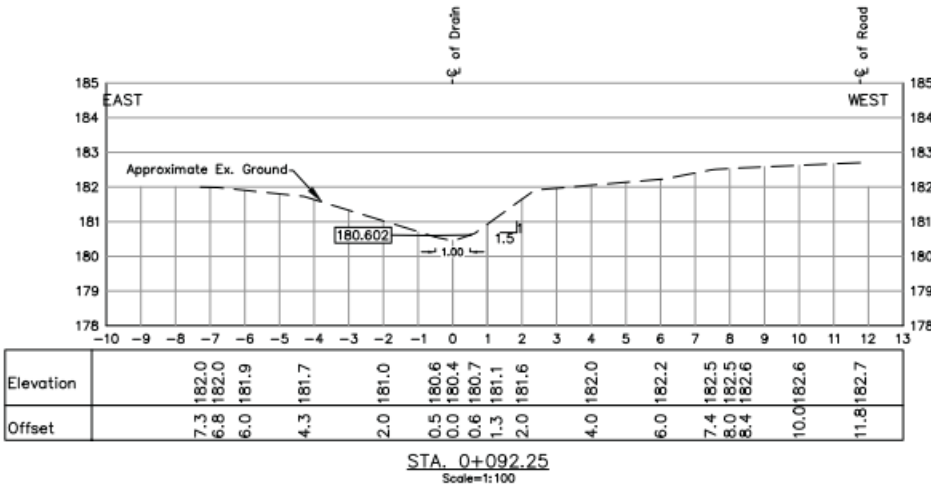
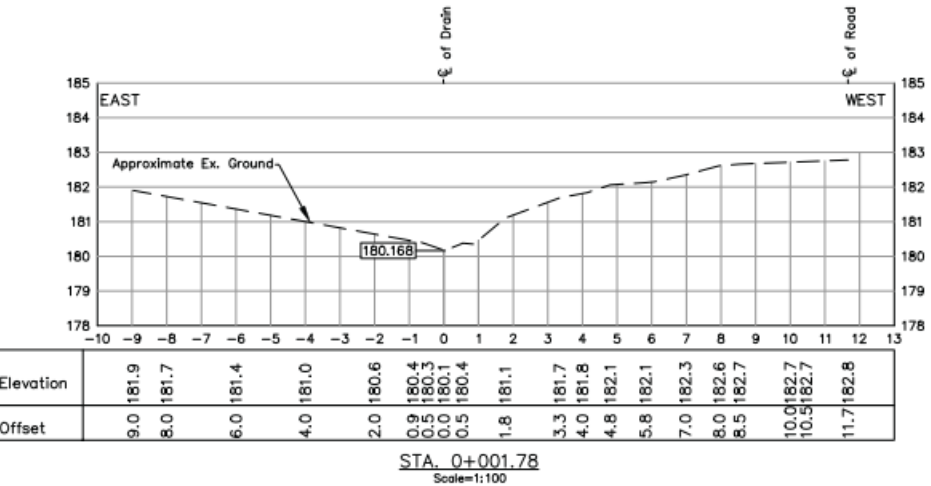
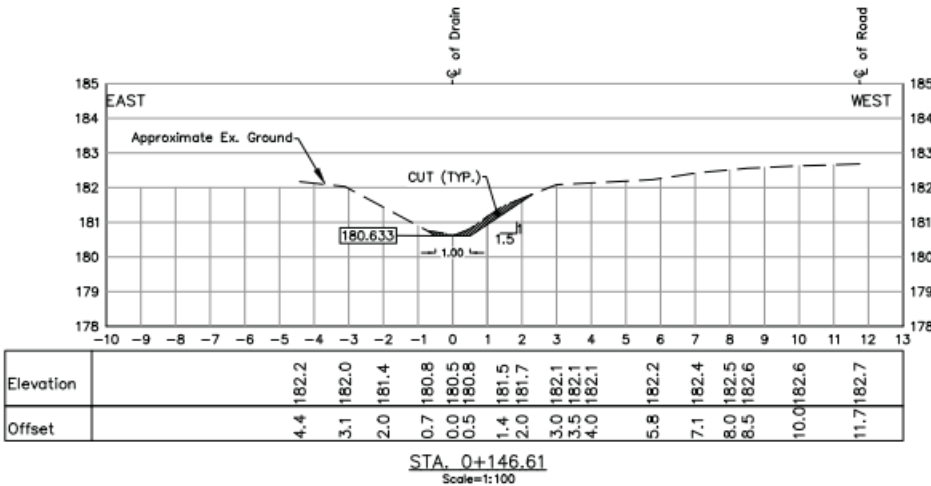
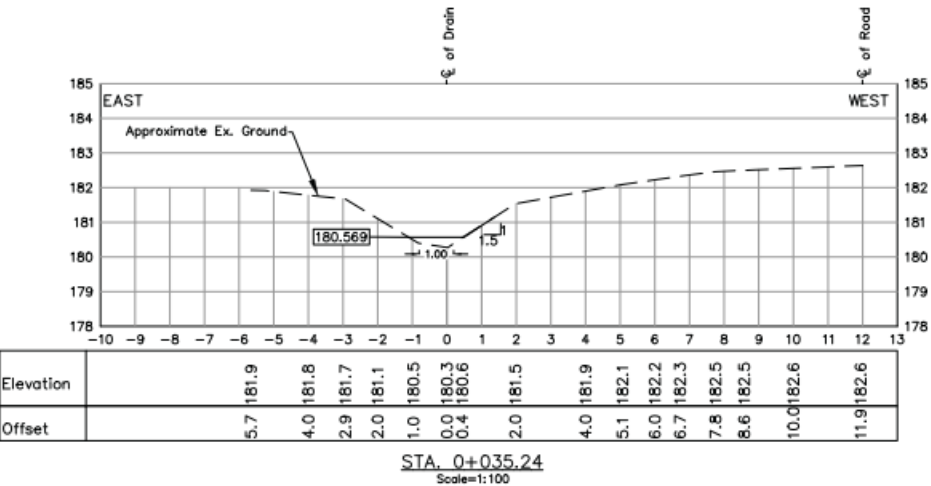
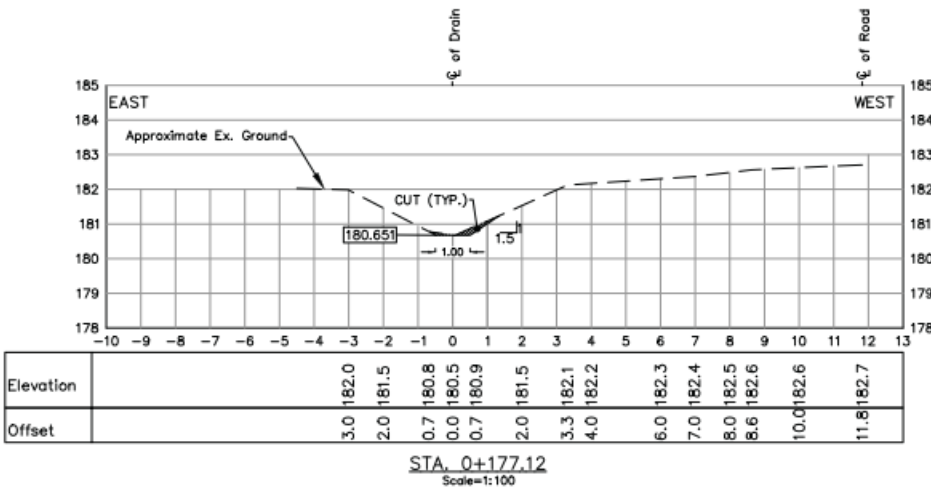
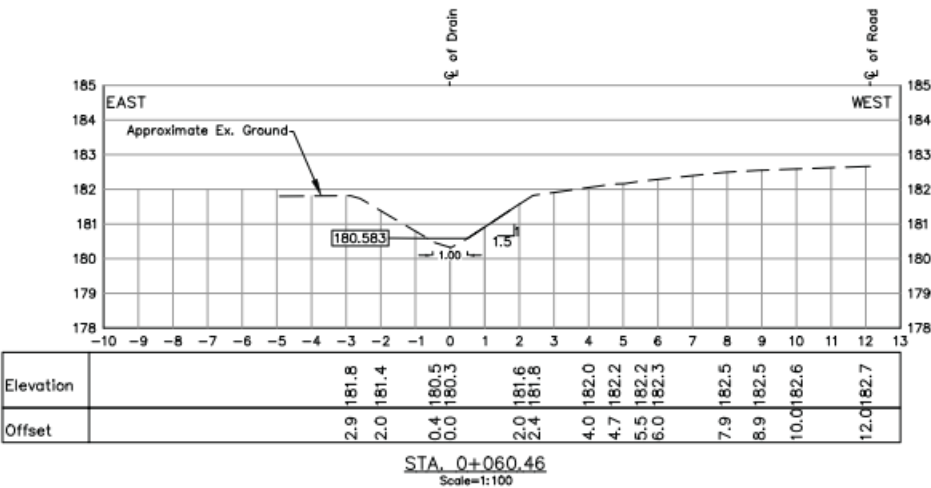
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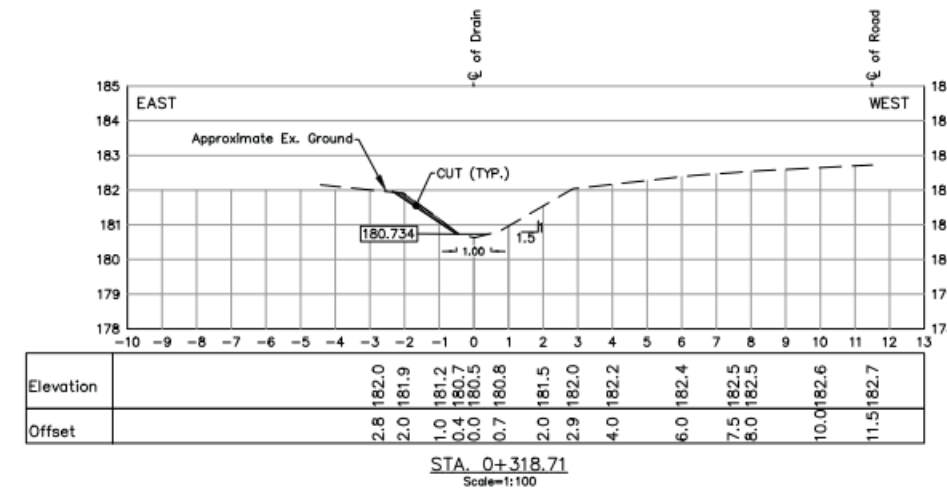
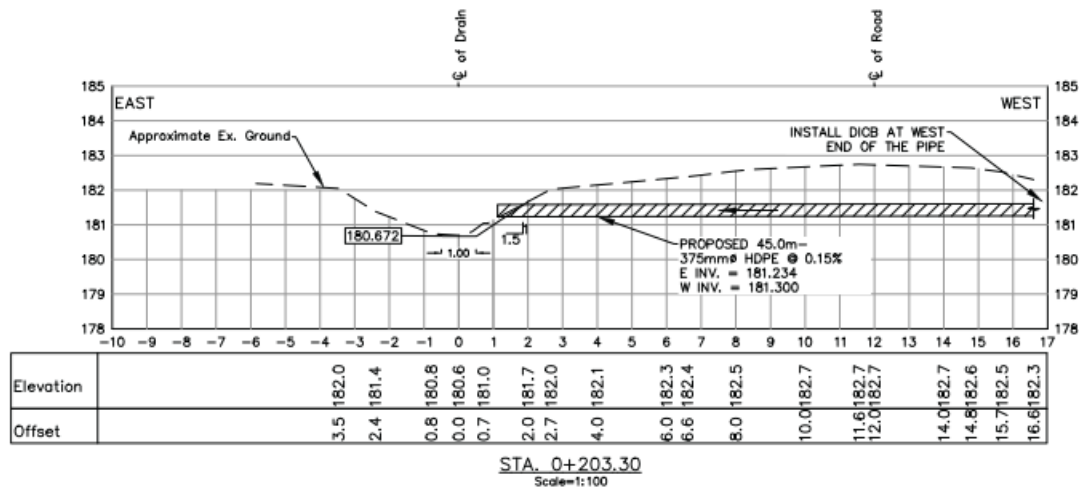
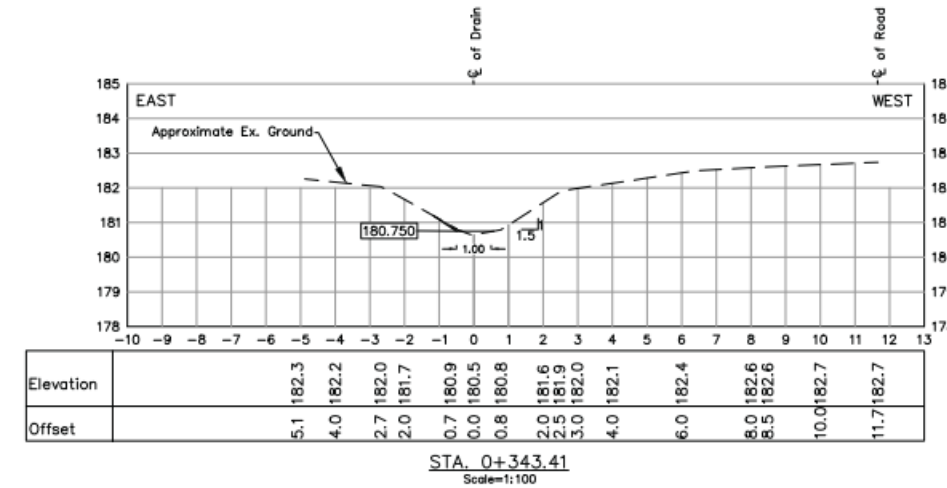
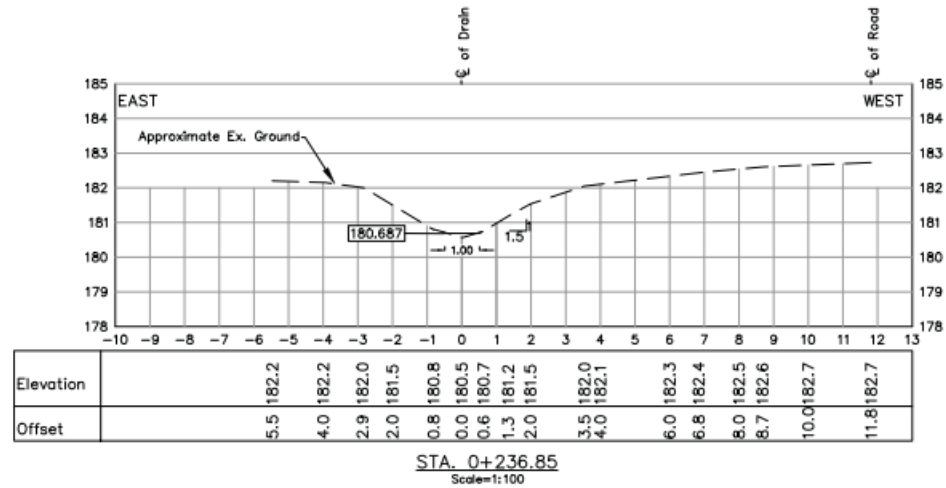
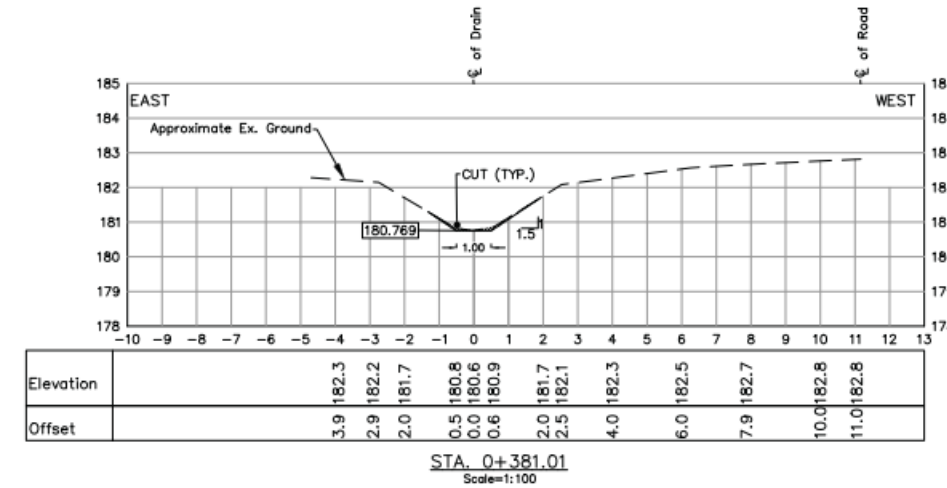
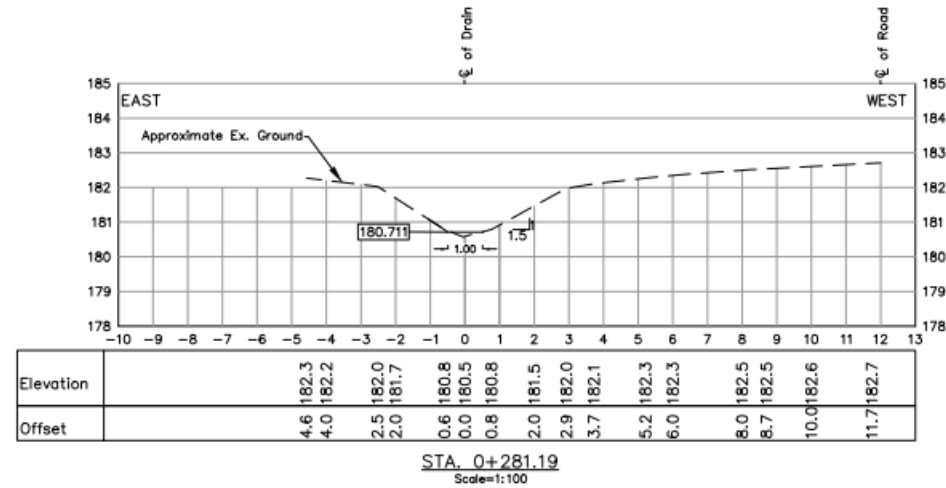
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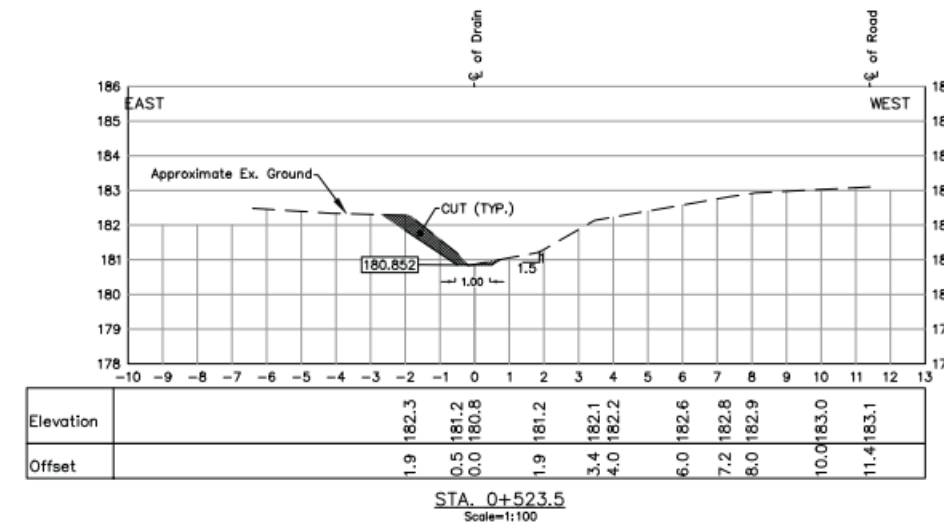
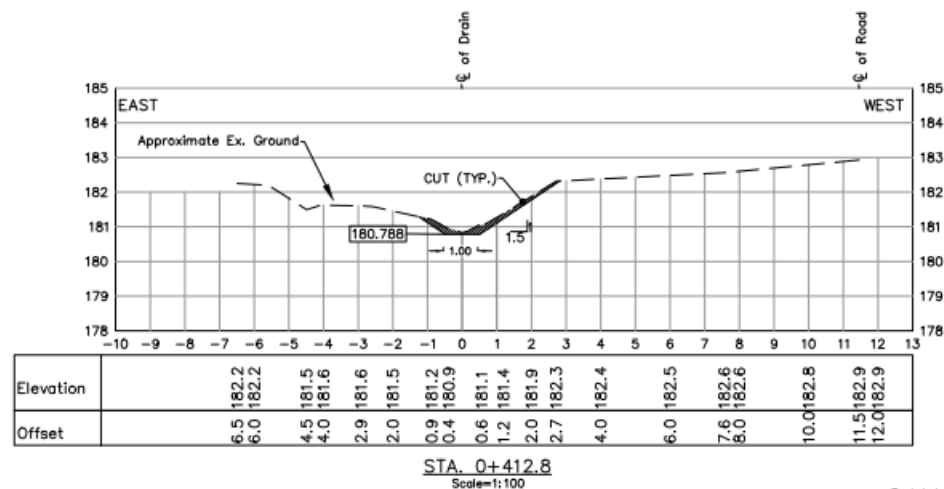
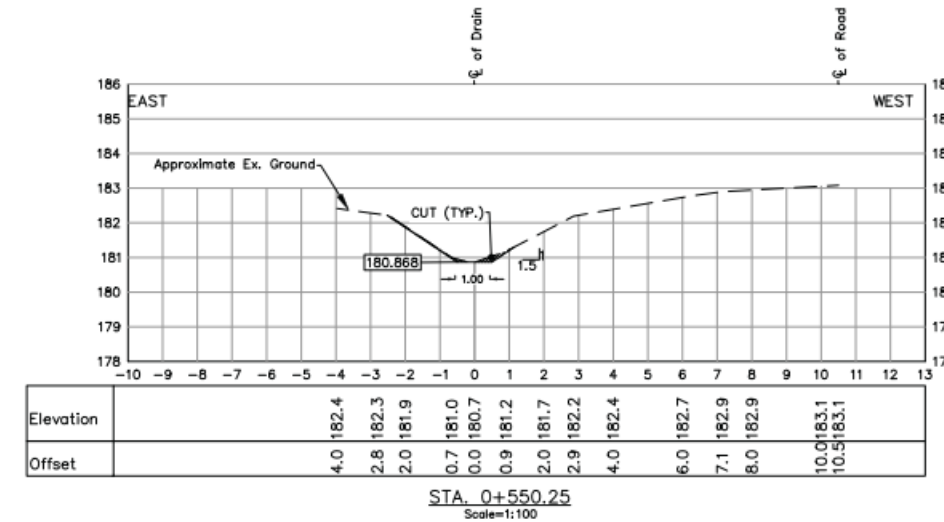
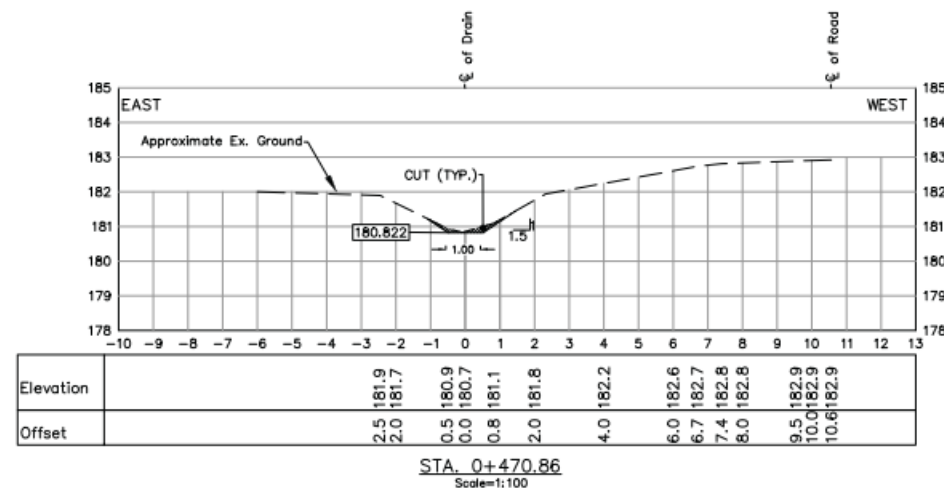
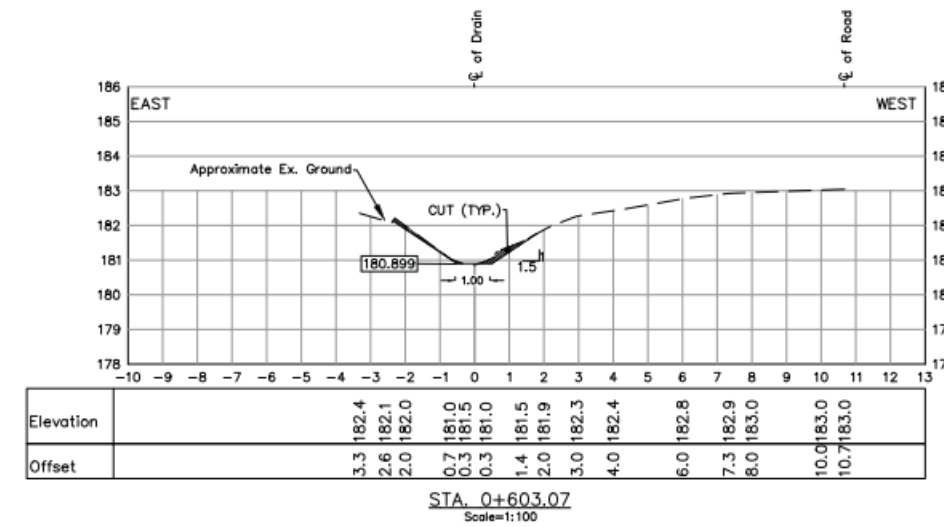
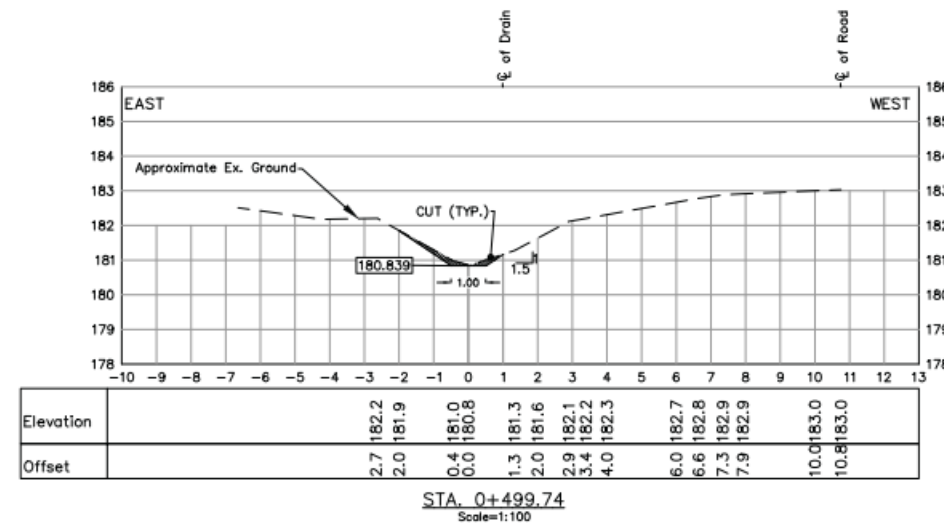


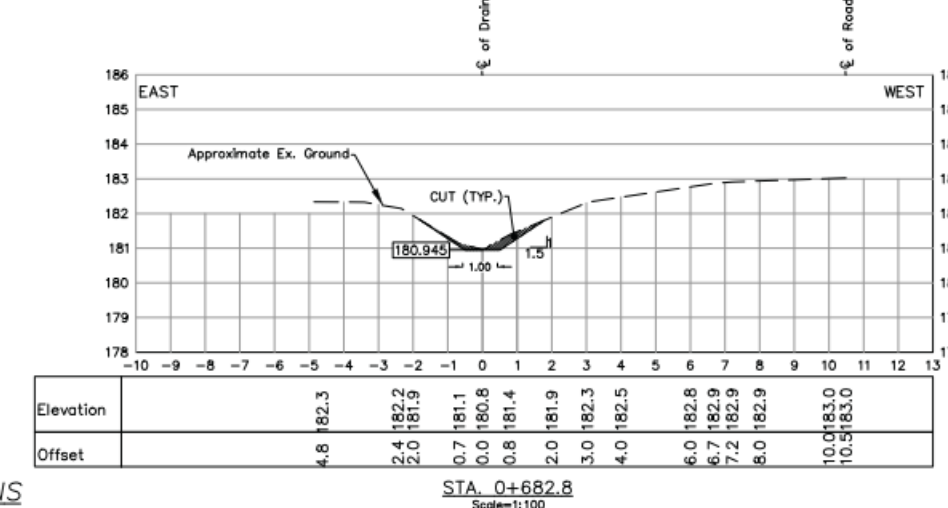
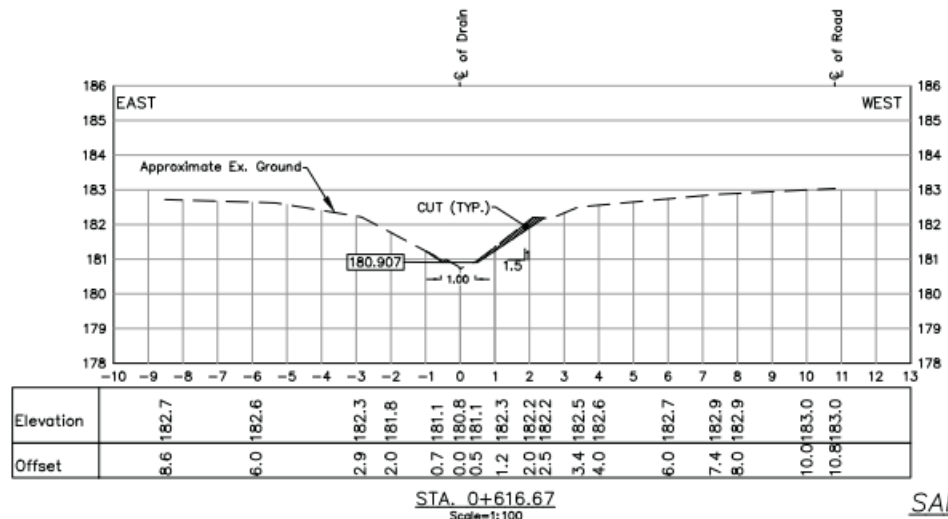
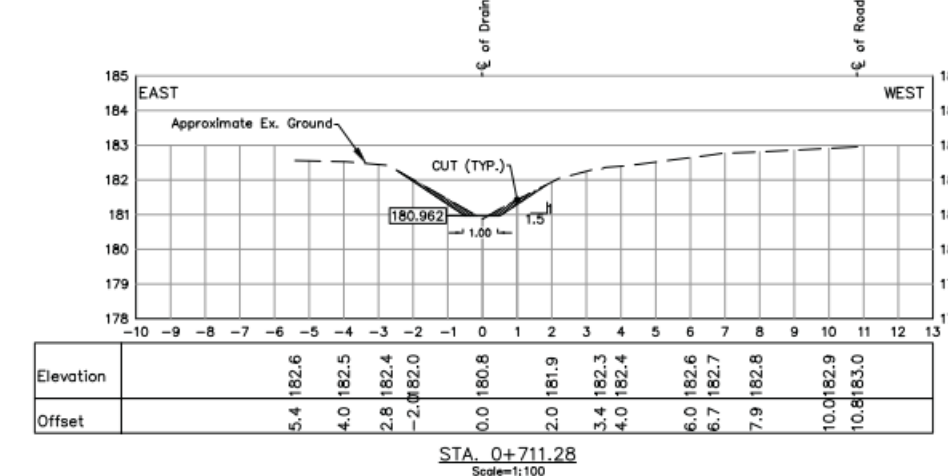
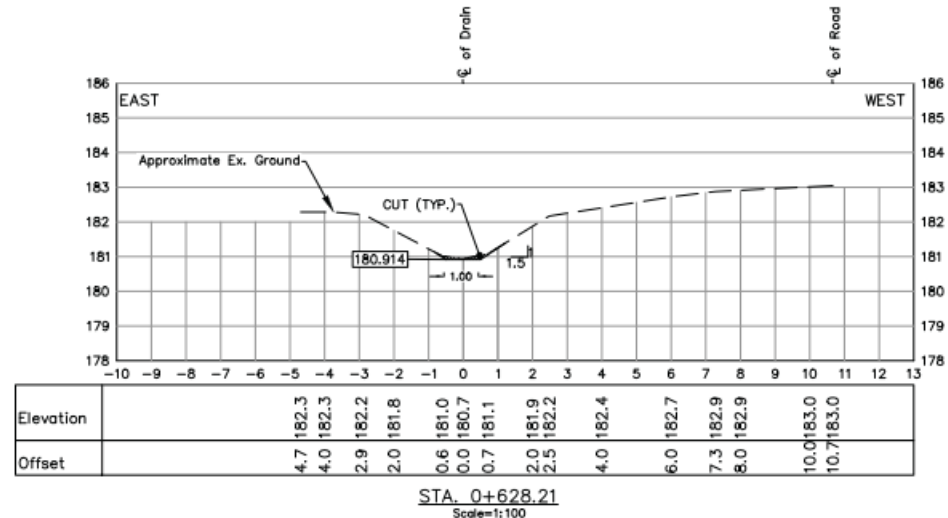
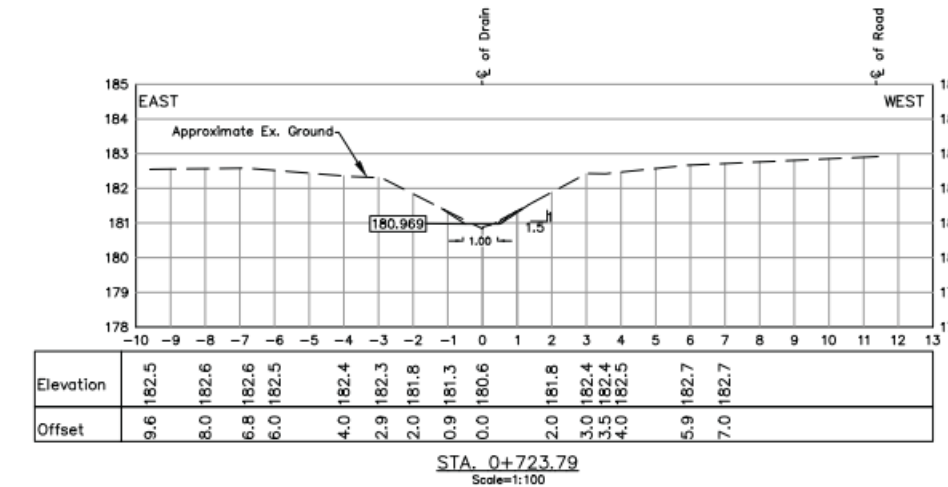
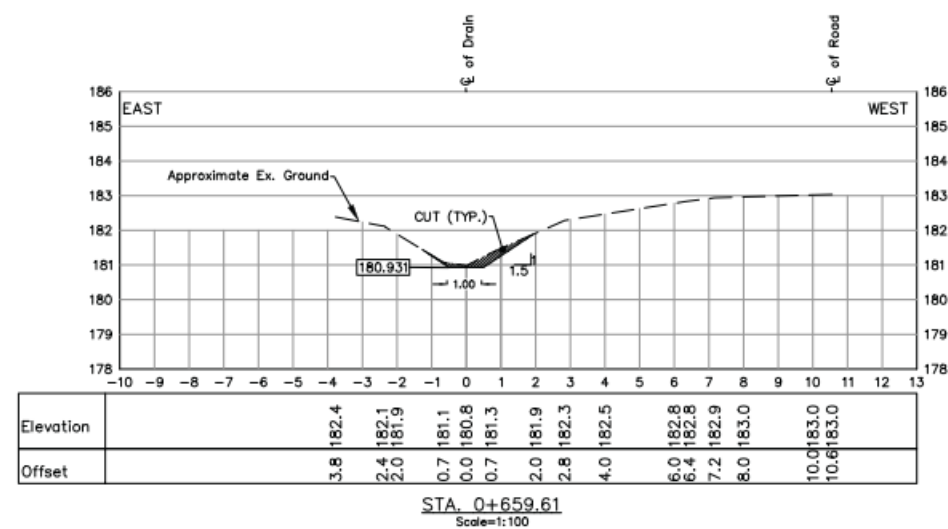
SAM PAQUETTE DRAIN - PROFILE

SCALE = 65' 000 Hor.
1:150 Vert.









SAM PAQUETTE DRAIN - CROSS-SECTIONS

THE CORPORATION OF THE TOWN OF AMHERSTBURG

BY-LAW NO. 2025-018

By-law to provide for the improvements to the Branch Drain & Subsequent Connection to the Sam Paquette Drain based on the report of Gerard Rood, P.Eng of Rood Engineering Inc.

WHEREAS a request for improvement to the Sam Paquette Drain was received under section 65 and 78 of the Drainage Act;

WHEREAS Council of the Corporation of the Town of Amherstburg appointed an engineer for the purpose of preparation of an engineer's report for improvements to the Sam Paquette Drain under section 65 and 78 of the Drainage Act;

WHEREAS Council of the Corporation of the Town of Amherstburg has authorized Gerard Rood, P.Eng., of Rood Engineering Inc., to prepare a report and said engineer's report dated January 16, 2025 entitled Sam Paquette Drain – Branch Drain & Subsequent Connection for Northside Recycle Inc. can be referenced as Schedule A, as attached hereto;

WHEREAS \$61,000 is the estimated cost provided for the new the drainage works;

AND WHEREAS the report was considered by the Amherstburg Drainage Board at the meeting held on February 25, 2025.

NOW THEREFORE the Council of the Corporation of the Town of Amherstburg hereby enacts as follows:

1. AUTHORIZATION

The attached drainage report is adopted and the drainage works is authorized and shall be completed as specified in the report.

2. BORROWING

The Corporation of the Town of Amherstburg may borrow on the credit of the Corporation the amount of \$61,000 being the estimated amount necessary for the improvements of the drainage works.

3. DEBENTURE(S)

The Corporation may issue debenture(s) for the amount borrowed less the total amount of:

- (a) Grants received under section 85 of the Drainage Act;
- (b) Monies paid as allowances;
- (c) Commuted payments made in respect of lands and roads assessed with the municipality;
- (d) Money paid under subsection 61(3) of the Drainage Act; and
- (e) Money assessed in and payable by another municipality.

4. PAYMENT

Such debenture(s) shall be made payable within 5 years from the date of the debenture(s) and shall bear interest at a rate not higher than 1% more than the municipal lending rates as posted by The Town of Amherstburg's Bank's Prime Lending Rate on the date of sale of such debenture(s).

- (1) A special equal annual rate sufficient to redeem the principal and interest on the debenture(s) shall be levied upon the lands and roads and shall be collected in the same manner and at the same as other taxes are

collected in each year for 5 years after the passing of this by-law.

- (2) All assessments of \$1000.00 or less are payable in the first year in which the assessments are imposed.

Read a first and second time and provisionally adopted this 24th day of March, 2025.

MAYOR – MICHAEL PRUE

CLERK – KEVIN FOX

Read a third time and finally passed this ____ day of _____, 2025.

MAYOR – MICHAEL PRUE

CLERK – KEVIN FOX



February 5, 2025

Agriculture, Food and Rural Affairs Appeal Tribunal and Board of Negotiation
1 Stone Road West, 2nd Floor NW
Guelph, ON N1G 4Y2
afraat@ontario.ca

NOTICE: Section 76(1) Varying Original Assessments for Maintenance for McLean Drain

At its Regular Council Meeting held on November 18, 2024, the Council of the Town of Essex passed the following resolution:

R24-11-518

Moved By Councillor Matyi

Seconded By Councillor Allard

That Drainage Report-2024-010 entitled Appointment of an Engineer under Section 76 of the Drainage Act to provide an updated assessment schedule for the McLean Drain prepared by Lindsay Dean, Drainage Superintendent dated November 18, 2024 be received; and

That Council appoint N.J. Peralta Engineering Ltd. under Section 76 of the Drainage Act to provide an updated schedule of assessment for the McLean Drain.

Carried

Under Section 76(1) of the *Drainage Act R.S.O. 1990, Chapter D.17* a municipality may make application to receive approval from the Tribunal to appoint an engineer to vary the assessment.

This letter serves as notice under Section 76(1) of the *Drainage Act R.S.O. 1990, Chapter D.17* that the Town of Essex is seeking permission to procure a report of an engineer to vary the assessment.



Reason for update: Although an updated assessment schedule for the most upstream municipality (Colchester South) was prepared in 1994, the most recent report governing the remainder of the McLean Drain downstream in Colchester North and Anderdon is from 1959. The 1959 report if used for downstream works does not account for the changes made in Colchester South in 1994, which is when a subdivision was built and was the driving force for the updated schedule. In the past when Colchester North and South were operating as separate townships, the schedules would be used jointly for billing whereby Colchester North (downstream municipality) would bill Colchester South and they would apply the cost to their existing schedule. The same logic could be applied today to bill works under separate schedules, however, in doing so an area in Colchester South that drains directly into Colchester North is being excluded from the billing. Given these challenges, and the property boundary and land use changes since 1959, the most practical solution would be to develop an updated comprehensive schedule for the entire watershed that will fairly assess all properties benefiting from maintenance works. The Town of Amherstburg has been consulted and is supporting this approach.

Municipalities through which the drain runs: The McLean Drain runs through the former Colchester North and South (now Essex) and Anderdon (now Amherstburg).

Yours truly,

A handwritten signature in black ink, appearing to read "J. Malandrucolo".

Joseph Malandrucolo, Clerk, Town of Essex
Encls.

cc. The Corporation of the Town of Amherstburg

31
WINDSOR, Ontario, February 2nd, 1959.

To:- The Reeve and the Municipal Council
of the Township of COLCHESTER SOUTH.

Gentlemen:

In compliance with your instructions, I have made an examination, survey, etc., of the McLEAN DRAIN, in your Township, and its Outlet through the Townships of Colchester North and Anderdon, and now report thereon as follows:-

I commenced my survey at where the present Drain crosses the line in the center of the 5th Concession of your Township; thence I followed the course of the said Drain, downstream, to its outlet in the Canard River, near the 3-4 Sideroad in the 8th Concession of the Township of Anderdon.

I find that the said Drain was last improved under a report made by J. J. Newman, dated March 3rd, 1943. Since that time, it has become quite badly filled with sediment, etc., and I would recommend that it be cleaned out, enlarged and improved in accordance with the accompanying profile and specifications.

I further find that each of the following owners is entitled to the following amounts for the enlargement of farm bridges rendered necessary by this drainage work:- ✓

COLCHESTER SOUTH:

1. Oliver Hill, owner $W\frac{1}{2}$ Lot 5, Concession 6 ----- \$ 400.00 ✓
2. N. & V. Souilliere, owner $E\frac{1}{4}$ Lot 5 & $W\frac{1}{4}$ Lot 6, Concession 6 ----- \$ 400.00 ✓

COLCHESTER NORTH:

3. M. Syrozyj & T. Palezuck, owner $SE\frac{1}{4}$ Lot 2, S.M.R. ----- \$ 400.00

ANDERDON:

4. Josephine Green, owner N. Pt. Lot 2, Concession 8 ----- \$ 400.00

I have provided for these in my estimates, as is provided for under Sub-Section 4 of Section 8 of the Municipal Drainage Act.

I further find that each of the following owners is entitled to and should receive the following amounts as compensation for damages to lands and crops (if any):-

COLCHESTER SOUTH:

1. Thadius Gorski, owner N. Pt. Lot 7, Concession 5 ----- \$ 120.00
2. Oliver Hill, owner $W\frac{1}{2}$ Lot 5, Concession 6 ----- \$ 100.00
3. N. & V. Souilliere, owner $W\frac{1}{2}$ Lot 5 & $E\frac{1}{4}$ Lot 5, & $W\frac{1}{4}$ Lot 6, Con. 6 ----- \$ 150.00

3. *Joe. Louki* Henry La Perte, owner E. Pt. 6 & Pt. 7, Concession 6 ----- \$ 72.00

Total for Damages, Colchester South Twp. ----- \$ 442.00 ✓

COLCHESTER NORTH:

4. Charlotte Gibb, owner E. Pt. Lot 3, Concession 7 ----- \$ 40.00

5. Edward Ouellette, owner S. Pt. Lot 4, Concession 7 ----- \$ 168.00

6. Harvey Grondin, owner N-3/8 Lot 1, S.M.R. ----- \$ 60.00

7. Nellida Gignac, owner E. Pt. Lot 1, S.M.R. ----- \$ 160.00

8. Ralph Grondin, owner SW $\frac{1}{4}$ Lot 2, S.M.R. ----- \$ 100.00

9. M. Syrozyj & T. Palesuck, owner SE $\frac{1}{4}$ Lot 2, S.M.R. ----- \$ 80.00

10. Metro Ostrowercha, owner W-3/4 Lot 3, S.M.R. ----- \$ 40.00

11. Armand Chauvin, owner SW Pt. Lot 1, N.M.R. ----- \$ 40.00

Total for Damages, Colchester North Twp. ----- \$ 688.00 ✓

ANDERDON:

12. Wm. Kennedy, owner SE Pt. Lot 3, Concession 8 ----- \$ 100.00

13. Josephine Green, owner N. Pt. Lot 2, Concession 8 ----- \$ 100.00

14. Jerome Chauvin, Pt. SE Pt. Lot 2, Concession 8 ----- \$ 20.00

15. Francis Jacques, owner Pt. SE Pt. Lot 2, Concession 8 ----- \$ 80.00

Total for Damages, Anderdon Twp. ----- \$ 300.00 ✓

I have provided for these in my estimates, as is provided for under Sub-Section 7 of Section 8 of the Municipal Drainage Act.

My estimate of the total cost of this work, including all incidental expenses, is the sum of \$18,439.00 made up as follows:-

COLCHESTER SOUTH:

Excavation from Sta. 0 to Sta. 75+60 --- 7,460 ft. ----- \$ 2,690.00

Brushing and Grubbing ----- \$ 205.00

Value of Enlargement for Farm Bridge to owner of W $\frac{1}{2}$ Lot 5, Concession 6 *DRIVER HILL* ----- \$ 400.00

Value of Enlargement for Farm Bridge to owner of E $\frac{1}{2}$ Lot 5, and W $\frac{1}{2}$ Lot 6, Concession 6 *VICTOR SEQUISHIERE* ----- \$ 400.00

Damages to lands and crops (if any) ----- \$ 442.00

Total for Construction, Damages, etc., Colchester South Twp. ----- \$ 4,377.00 ✓

Excavation across Townline Road between Colchester South & Col. North --- \$ 80.00 ✓

COLCHESTER NORTH:

Excavation from Sta. 75+58 to Sta. 213+50 --- 13,792 ft. --- \$ 5,200.00

Brushing and Grubbing ~~-----~~ \$ 300.00

Value of Enlargement of Farm Bridge to owner of SE $\frac{1}{4}$ Lot 2, S.M.R. ~~-----~~ \$ 400.00

Damages to Lands and Crops (if any) ----- \$ 688.00

Total for Construction, Damages, etc., Colchester North Twp. ----- \$ 7,588.00 ✓

Excavation across Townline Road between Col. North and Anderdon ----- \$ 80.00 ✓

ANDERDON:

Excavation from Sta. 214+25 to Sta. 277 ---- 6,275 ft. ---- \$ 3,200.00

Brushing and Grubbing ----- \$ 100.00

Value of Enlargement for Farm Bridge to owner of N. Pt.
of Lot 2, Concession 8 ----- \$ 400.00

Damages to lands and crops (if any) ----- \$ 300.00

Total for Construction, Damages, etc., in Anderdon Township ----- \$ 4,000.00 ✓

TOTAL FOR Construction, Damages, etc., in all Three Townships ----- \$ 15,885.00

Surveys, Plans, Estimates, Report & Assessments ----- \$ 735.00

Assistants and Expenses ----- \$ 293.00

Extra Work for Clerk, Colchester South Twp. ----- \$ 150.00 ✓

Publishing By-law, Colchester South Twp. ----- \$ 100.00 ✓

Court of Revision, Colchester South Twp. ----- \$ 24.00 ✓

Ontario Municipal Board Fee, Colchester South Twp. ---- \$ 10.00 ✓

Serving Copy of Report on Colchester North Twp. ----- \$ 10.00 ✓

Extra Work for Clerk, Colchester North Twp. ----- \$ 150.00

Publishing By-law, Colchester North Twp. ----- \$ 100.00

Court of Revision, Colchester North Twp. ----- \$ 24.00

Ontario Municipal Board Fee, Colchester North Twp. ---- \$ 10.00

Serving Copy of Report on Anderdon Township ----- \$ 10.00 ✓

Extra Work for Clerk, Anderdon Township ----- \$ 75.00

Publishing By-law, Anderdon Township ----- \$ 60.00

Court of Revision, Anderdon Township ----- \$ 24.00

Ontario Municipal Board Fee, Anderdon Township ----- \$ 5.00

Serving Copy of Report on Malden Township ----- \$ 10.00 ✓

Extra Work for Clerk, Malden Township ----- \$ 75.00

Publishing By-law, Malden Township ----- \$ 60.00

Court of Revision, Malden Township ----- \$ 24.00

Ontario Municipal Board Fee, Malden Township ----- \$ 5.00

Letting and Superintending, ----- \$ 600.00

Total for Incidentals ----- \$ 2,554.00

TOTAL ESTIMATE ----- \$ 18,439.00

Of this amount, I have assessed the lands in the Township of Colchester South which are benefitted by or use the said Drain as an outlet, with the sum of \$8,012.00 and the Township of Colchester South for roads with the sum of \$721.00, thus making the total assessment on the Township of COLCHESTER SOUTH, the sum of

\$8,733.00 as is more fully set forth in the Schedule of Assessment hereto attached.

I have assessed the lands in the Township of Colchester North which are benefitted by or use the said Drain as an outlet, with the sum of \$7,922.00 and the Township of Colchester North for roads with the sum of \$704.00, thus making the total assessment on the Township of COLCHESTER NORTH the sum of \$8,626.00 as is more fully set forth in the Schedule of Assessment hereto attached.

I have assessed the lands in the Township of Anderdon which are benefitted by or use the said Drain as an outlet, with the sum of \$520.00 and the Township of Anderdon for roads with the sum of \$68.00, thus making the total assessment on the Township of ANDERDON the sum of \$588.00 as is more fully set forth in the Schedule of Assessment hereto attached.

I have assessed the lands in the Township of Malden which are benefitted by or use the said Drain as an outlet with the sum of \$452.00 and the Township of Malden for roads with the sum of \$40.00, thus making the total assessment on the Township of MALDEN, the sum of \$492.00 as is more fully set forth in the Schedule of Assessment hereto attached.

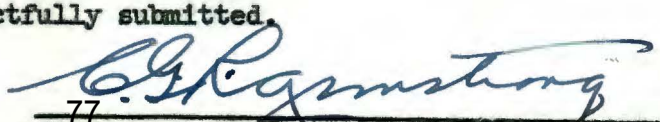
I would further recommend that this Drain, from Station 0 to the North side of the Road between the Townships of Colchester South and Colchester North, be kept up and maintained at the expense of the lands and roads in the Township of Colchester South and in the proportions herein contained, until otherwise determined under the provisions of the Municipal Drainage Act.

I would also recommend that that portion of the Drain between the Northerly limit of the Townline Road between the Townships of Colchester South and Colchester North and the Westerly limit of the Townline Road between the Townships of Colchester North and Anderdon, be kept up and maintained by the Township of Colchester North, and at the expense of the lands and roads in the Townships of Colchester North and Colchester South, until otherwise determined under the provisions of the Municipal Drainage Act.

I would also recommend that that portion of the Drain from the Westerly limit of the Townline Road between the Townships of Colchester North and Anderdon to the Canard River, be kept up and maintained by the Township of Anderdon, and at the expense of the lands and roads in the Township of Anderdon, and Malden, Colchester North and Colchester South, until otherwise determined under the provisions of the Municipal Drainage Act.

All of which is respectfully submitted.

CGRA/11.


77
Engineer for the Township of COLCHESTER SOUTH.

rebuilding said fence, provided he has used reasonable care in removing and replacing the same.

In this report, an allowance has been made to the owners of the West half of Lot 5, Concession 6, the East one-quarter of Lot 5, Concession, and the West one-quarter of Lot 6, Concession, 6, in the Township of Colchester South, and to the owner of the Southeast one-quarter of Lot 2, S.M.R., in the Township of Colchester North, for the enlargement of farm bridges. The Contractor will be required to remove each of these bridges since they are too small and interfere with the flow of water, and he will not be required to replace them. If the owners replace these bridges, they shall make certain that they are large enough to allow the water to flow through same without being obstructed, and they will increase the clear span of the bridges accordingly.

An allowance is also being made in this report to the owner of the North part of Lot 2, Concession 8, for the enlargement of a farm bridge. The Contractor will also be required to remove this bridge since it is too low and interferes with the flow of water, and he will not be required to replace same. If the owner replaces this bridge, he shall make certain that it is raised so that the underside of the steel "I" beams are at least Eight feet (8') above the bottom of the finished Drain at the location of the bridge.

The whole of the work shall be done in a neat, thorough, and workmanlike manner, to the full satisfaction of the Commissioner in charge.

Monthly estimates will be furnished the Contractor by the Commissioner in charge. Said estimates shall be not more than 80% of the value of the work done and materials furnished on the ground, but the paying of the full 80% does not imply that any portion of the work has been accepted. The remaining 20% will be paid thirty-seven (37) days after the final completion and acceptance of the work.

WINDSOR, Ontario.

February 2nd, 1959.


Engineer for the Township of COLCHESTER SOUTH.

CGRA/11.

SPECIFICATIONS for Repairing, Enlarging and Improving the McLEAN DRAIN, in the Townships of COLCHESTER SOUTH, COLCHESTER NORTH, and ANDERDON.

The Drain shall follow the course of the present Drain throughout its entire length and shall be of the form, size, depths, etc., as shown on the accompanying profile, and when completed, shall have a uniform and even bottom, and in no case shall such bottom project above the grade line shown on the profile, as determined from the bench marks. The Drain shall have uniform and even side slopes of not less than one and one-quarter feet horizontal to one foot vertical on each side.

Where there are any short bends or crooks in the course of the Drain, the Contractor will be required to cut off or widen the Drain on the side which tends to straighten the course.

The excavated earth shall be cast to either or both sides of the Drain as may be directed by the Commissioner in charge, and well and evenly spread over a sufficient space so that no portion of the excavated earth is more than Fifteen inches (15") in depth and kept at least Five feet (5') clear from the edge of the Drain, care being taken not to fill up any existing ditches, furrows or Drains with the excavated material.

Where the Drain passes in front of any house, lawn, garden, driveway or orchard, the excavated earth shall be hauled away and deposited and spread upon the lands of the owners as above specified.

Where the Drain crosses any road allowance, the excavated earth shall be taken half each way and deposited upon the adjoining lands and spread as above specified.

Where the Drain passes through the woods or pasture lands, a space as wide as is required for placing the earth and leaving the necessary berm, shall be cleared of all brush, rubbish, etc., before the excavating is done, and disposed of as hereinafter specified.

Where there is any brush or rubbish in the course of the Drain, including both side slopes of the Drain, or where the earth is to be spread, including any brush or rubbish on that strip of land between where the earth is to be spread and the edge of the Drain, all such brush and rubbish shall be grubbed out of the Drain, and close cut where the earth is to be spread, the whole to be burned or otherwise satisfactorily disposed of by the Contractor.

Where it is necessary to take down any fence in order to proceed with the work, the same shall be done by the Contractor, and when that portion of the work has been completed, the said fence shall be replaced by him in a neat and workmanlike manner, but he will not be required to procure any new materials for

31/10/1911

SCHEDULE OF ASSESSMENT.

McLean Drain, Colchester South Twp:z

Con.	Lot or Part of Lot	Area in Acres	Owner's Names	Acres Afftd.	Value of Benefit	Value Outlet Liab.	Total Value of Improv.
5	E. Pt. Lot 4	75	Irmie Schwab	20		62.00	62.00
"	W $\frac{1}{2}$ Lot 5	50	Irmie Schwab	15		47.00	47.00
"	E $\frac{1}{2}$ W $\frac{1}{2}$ Lot 5	50	FRANCIS Mark Deslippe	25		78.00	78.00
"	W $\frac{1}{2}$ E $\frac{1}{2}$ Lot 5	50	Nelson Dealippe	25		78.00	78.00
"	E $\frac{1}{2}$ Lot 5	50	Joe Gorski	50		156.00	156.00
"	N $\frac{1}{2}$ Lot 6	50	KEITH M ^C ORMICK D. Lucier	50	31.00	156.00	187.00
"	S $\frac{1}{2}$ W $\frac{1}{2}$ Lot 6	50	Steve Kordyban	50	20.00	156.00	176.00
"	S $\frac{1}{2}$ Lot 6	99	Witold Ruzgic Gerald Pollard	99		310.00	310.00
"	NW Pt. S $\frac{1}{2}$ Lot 7	21	Gerald Pollard	21		73.00	73.00
"	Pt. Lot 7	100	DENNIS HARTSHORN Thadius Gorski	100	270.00	332.00	602.00
"	SW Pt. Lot 7	28	SKE SCHEDULE NO. 1 Bernard White	16	20.00	56.00	76.00
"	SW Pt. Lots 7 & 8	47	Wm. Ferriss	30	62.00	104.00	166.00
"	N $\frac{1}{2}$ Lot 8 exc. Ry.	95	DENNIS HARTSHORN Thadius Gorski	95	145.00	312.00	457.00
"	Pt. Lot 8		C. & N. Railway (Bond 3) (Copies)	3	10.00	15.00	25.00
6	W $\frac{1}{2}$ W $\frac{1}{2}$ Lot 1	50	R. Dufour	40		69.00	69.00
"	E $\frac{1}{2}$ W $\frac{1}{2}$ Lot 1	50	F. Renaud	40		69.00	69.00
"	W $\frac{1}{2}$ E $\frac{1}{2}$ Lot 1	50	F. Renaud	40		87.00	87.00
"	E $\frac{1}{2}$ E $\frac{1}{2}$ Lot 1	50	D. Lucier	40		91.00	91.00
"	N-4/5 W $\frac{1}{2}$ W $\frac{1}{2}$ Lot 2	40	O. Quick	40		91.00	91.00
"	Pt. N. Pt. E $\frac{1}{2}$ W $\frac{1}{2}$ Lot 2	20	Mrs. Fawdry	20		46.00	46.00
"	Pt. N. Pt. E $\frac{1}{2}$ W $\frac{1}{2}$ Lot 2	19	J. Zulianni Est.	19		43.00	43.00
"	N $\frac{1}{2}$ E $\frac{1}{2}$ 2 & N $\frac{1}{2}$ W $\frac{1}{2}$ Lot 3	75	Stan Jenner	75		170.00	170.00
"	SE $\frac{1}{4}$ E $\frac{1}{2}$ Lot 2 & W $\frac{1}{2}$ Lot 3	75	Bernard Grondin	75		170.00	170.00
"	E $\frac{1}{2}$ W $\frac{1}{2}$ Lot 3	50	George Fawdry	50		114.00	114.00
"	W $\frac{1}{2}$ E $\frac{1}{2}$ Lot 3	48	QEO FERRISS Thomas Foote	48		110.00	110.00
"	N. Pt. E $\frac{1}{2}$ E $\frac{1}{2}$ Lot 3	41	Hartson Fawdry	41		94.00	94.00
"	S. Pt. E $\frac{1}{2}$ 3 & SW Cor. 4	9 $\frac{1}{2}$	Nelson Deslippe	9 $\frac{1}{2}$		30.00	30.00
"	E $\frac{1}{2}$ & S. Pt. W $\frac{1}{2}$ Lot 4	130	Thadius Gorski	130	187.00	297.00	484.00
"	Pt. SE Cor. Lot 4	1/3	Wm. Kotow	1/3		2.00	2.00
"	pt. SE Cor. Lot 4	1	Irwin Shepley	1		2.00	2.00
"	Pt. W $\frac{1}{2}$ Lot 4	60	J. Gurdal	60	62.00	137.00	199.00
"	W $\frac{1}{2}$ Lot 5	100	OSCAR Oliver Hill	100	208.00	228.00	436.00
"	W $\frac{1}{2}$ E $\frac{1}{2}$ 5 & E $\frac{1}{2}$ 5 & W $\frac{1}{2}$ 6	147	N. & V. Souilliere	147	312.00	337.00	649.00

Con.	Lot or Part of Lot	Area in Acres	Owner's Names	Acres Afftd	Value of Benefit	Value Outlet Liab.	Total Value of Improv't.
6	E. Pt. 6 & Pt. Lot 7	¹⁹² 272	Henry La Porte	¹⁹² 272 ✓	478.00	622.00	^{776.00} 1,100.00 ✓
"	⁶ Pt. Lots 7 & 8	⁸⁰ 284	Joe Koski	⁸⁰ 184 ✓	208.00	420.00	^{324.00} 628.00 ✓
"	Pt. Lots 7 & 8		C. & O. Railway (3 ^{and} 3 ^{separ})	7	20.00	25.00	45.00 ✓
"	Lots 9, 10 & 11	300	Vida Farms	300	104.00	686.00	790.00 ✓
Total on Lands -----					\$ 2,137.00	\$5,875.00	\$ 8,012.00 ✓
Sixth Concession Road (Col. South Township) -----					\$ 177.00	\$ 156.00	\$ 333.00 ✓
North Townline Road (1/2 Col. South Township) -----					\$ 83.00	\$ 69.00	\$ 152.00 ✓
Harrow Road (Essex County) -----					\$	\$ 104.00	\$ 104.00 ✓
Road between Lots 4 & 5, Con. 6, (Col. South Township) -----					\$ 62.00	\$ 46.00	\$ 108.00 ✓
North Townline Road (Essex County) -----					\$	\$ 12.00	\$ 12.00 ✓
West Townline Road (1/2 Col. South Township) -----					\$	\$ 12.00	\$ 12.00 ✓
Total on Roads -----					\$ 322.00	\$ 399.00	\$ 721.00 ✓
Total on Lands Brought Down -----					\$ 2,137.00	\$5,875.00	\$ 8,012.00
TOTAL ASSESSMENT, COLCHESTER SOUTH TOWNSHIP -----					\$ 2,459.00	\$6,274.00	\$ 8,733.00

COLCHESTER NORTH TOWNSHIP:

Con.	Lot or Part of Lot	Area in Acres	Owner's Names	Acres Afftd	Value of Benefit	Value Outlet Liab.	Total Value of Improv't.
7	SW Cor. & W. Pt. Lot 1	79½	Milford Sinasac	79½		118.00	118.00
"	Pt. SW Pt. Lot 1	¾	Gerald Sinasac	¾		2.00	2.00
"	Pt. SW Pt. Lot 1	¼	Jos. Bystryk	¼		1.00	1.00
"	Pt. SW Pt. Lot 1	1	R.C.S.S. #3B	1		2.00	2.00
"	SE Pt. Lot 1	62-2/3	Ralph Grondin	62-2/3		104.00	104.00
"	Pt. N. Pt. Lot 1	2	Achille Arquette	2		3.00	3.00
"	Pt. W. Pt. Lot 1	3	Arthur Tourangeau	3		4.00	4.00
"	W. Pt. Gore Lot 1	6	J. E. Adams Est.	6		8.00	8.00
"	Pt. N. Pt. Lot 1	21½	Leo Rocheleau	21½		27.00	27.00
"	Pt. N. Pt. Lot 1	13	Jos. Bystryk	13		22.00	22.00
"	NW. Cor. Lot 1	2-¾	Louis Rocheleau	2-¾		5.00	5.00
"	Gore Lot 2	60	Wilfred Girard	60		125.00	125.00
"	W. Pt. Lot 3	50	Thomas Foote	50	21.00	104.00	125.00
"	E. Pt. Lot 3	50	Charlotte Gibb	50	83.00	104.00	187.00
"	S. Pt. Lot 4	84-1/3	Edward Ouellette	84-1/3	177.00	175.00	352.00
"	Pt. N. Pt. Lot 4	51-¾	Hans Kloches	50	83.00	104.00	187.00
"	W. Pt. Lot 5	120	John Haswell	120	135.00	250.00	385.00
"	SE Pt. Lot 5	25	Wm. Morgan	25	31.00	52.00	83.00

Lot or Part of Lot	Area in Acres	Owner's Names	Acres Afctd	Value of Benefit	Value Outlet Liab.	Total Value of Improv't.
7 NE. Pt. Lot 5	25	Roy Shepley	25	21.00	52.00	73.00
" E $\frac{1}{2}$ SW $\frac{1}{4}$ Lot 6	25	Bailey Rogers	25	10.00	52.00	62.00
" W $\frac{1}{2}$ SW $\frac{1}{4}$ Lot 6	25	Ivan E. Day	25	10.00	52.00	62.00
" W. Pt. SE $\frac{1}{4}$ Lot 6	23 $\frac{1}{2}$	Wm. J. Lester	23 $\frac{1}{2}$		49.00	49.00
" E. Pt. SE $\frac{1}{4}$ Lot 6	23 $\frac{1}{2}$	Bailey Rogers	23 $\frac{1}{2}$		49.00	49.00
" N $\frac{1}{2}$ Lot 6	88	James Adams	88	42.00	183.00	225.00
" W $\frac{1}{2}$ & NW Pt. E $\frac{1}{2}$ Lot 7	139	Robert Templeton	139		289.00	289.00
" W. Pt. SE $\frac{1}{4}$ Lot 7	25	Annabelle Mass	25		52.00	52.00
" E. Pt. Lot 7 & W. Pt. Lot 8	70	Stanley Loosemore	70		146.00	146.00
" E. Pt. Lot 8	170	Stanley Loosemore	170		354.00	354.00
" Lot 9	213	Henrietta Reh	213		443.00	443.00
" E. Pt. Lot 10	31 $\frac{1}{2}$	Henrietta Reh	31 $\frac{1}{2}$		66.00	66.00
" Lot 10	181	Ben Wirth	181		376.00	376.00
" W $\frac{1}{2}$ Lot 11	106	Pauline Streiter	106		220.00	220.00
" E $\frac{1}{2}$ Lot 11	106	Charles Arps Est.	106		220.00	220.00
" S $\frac{1}{2}$ Lot 12	102	Roy J. Fields	102		212.00	212.00
" N $\frac{1}{2}$ Lot 12	100	Roy J. Fields	100		208.00	208.00
8 Lots 6, 7, and 8	108	Wm. Lester	54		89.00	89.00
SMR S. Pt. S $\frac{1}{2}$ Lot 1	42 $\frac{1}{2}$	Michael Denchick	42 $\frac{1}{2}$	21.00	73.00	94.00
" N. Pt. S $\frac{1}{2}$ Lot 1	57	Richmond Williams	57	42.00	92.00	134.00
" N-3/8 Lot 1	75	Harvey Grondin	75	104.00	94.00	198.00
" E. Pt. Lot 1	25	Nellida Gignac	25	42.00	31.00	73.00
" SW $\frac{1}{4}$ Lot 2	50	Ralph Grondin	50	104.00	86.00	190.00
" SE $\frac{1}{4}$ Lot 2	50	M. Syrozyj & T. Pale- zuck	50	104.00	87.00	191.00
" N $\frac{1}{2}$ Lot 2	100	Nellida Gignac	100	135.00	124.00	259.00
" W-3/4 Lot 3	150	Metro Ostrowercha	150	156.00	218.00	374.00
" E $\frac{1}{2}$ Lot 3 & 3/4 W $\frac{1}{2}$ Lot 4	125	E. & M. Burystyn	125	20.00	183.00	203.00
" SE Pt. Lot 4	40	Foffil Elura	40		58.00	58.00
" W $\frac{1}{2}$ NW $\frac{1}{4}$ Lot 4	25	Ira Want	25		31.00	31.00
" NE. Pt. Lot 4	60	Heinrick Neudorf	60		75.00	75.00
" NW. Pt. Lot 5	50	Heinrick Neudorf	50		72.00	72.00
" SW. Pt. Lot 5	46	Jack Bateman	46		67.00	67.00
" E. Pt. Lot 5	31 $\frac{1}{2}$	Ulric Knapp	31 $\frac{1}{2}$		45.00	45.00
" W. Pt. Lot 5	43	Stanley Haswell	43		52.00	52.00
" NE. Pt. Lot 5 & NW $\frac{1}{4}$ Lot 6	83	Joseph Sabo	75		93.00	93.00

Con. of Lot	Lo or Part	Area in Acres	Owner's Names	Acres Afstd	Value of Benefit	Value Outlet Liab.	Total Value of Improv't.
SMR	SW $\frac{1}{4}$ Lot 6	50	Wind. Dist. Hung. Soc.	50		72.00	72.00
"	NE $\frac{1}{2}$ 6 & NE $\frac{1}{4}$ 6 & Pt W $\frac{1}{2}$ 7	186 $\frac{1}{2}$	Paul Gagnon Jr.	155		206.00	206.00
"	SE $\frac{1}{4}$ Lot 7	47	James Adams	47		76.00	76.00
"	SE. Cor. Lot 8	5	Lloyd Nolan	5		8.00	8.00
"	All Lot 8 exc. SE 5 ac.	195	Arthur Tripp	100		166.00	166.00
"	SW. Pt. Lot 9	40	Stanley Loosemore	18		30.00	30.00
"	NE $\frac{1}{2}$ 9 W $\frac{1}{2}$ 10 exc. N 12 ac.	188-3/4	J. Wm. & L. Campbell	65		108.00	108.00
NMR	SW. Pt. Lot 1	3 $\frac{1}{4}$	Armand Chauvin	3 $\frac{1}{4}$	20.00	4.00	24.00
"	Pt. S $\frac{1}{2}$ Lot 1	12 $\frac{1}{2}$	Ben Bartok	12 $\frac{1}{2}$		13.00	13.00
"	Pt. S. Pt. Lot 1	$\frac{1}{2}$	Lila Drouillard	$\frac{1}{2}$		1.00	1.00
"	Pt. S. Pt. Lot 1	1	Ernest Dory	1		1.00	1.00
"	Pt. S. Pt. Lot 1	1	Harold Robbins	1		1.00	1.00
"	Pt. S. Pt. Lot 1	2	Ernest Dorey	2		2.00	2.00
"	Pt. S. Pt. Lot 1	1	Rosetta Irwin	1		1.00	1.00
"	Pt. S. Pt. Lot 1	$\frac{1}{2}$	Albert Boismar	$\frac{1}{2}$		1.00	1.00
"	Pt. S. Pt. Lot 1	$\frac{1}{2}$	Cecelia Dallaire	$\frac{1}{2}$		1.00	1.00
"	Pt. S. Pt. Lot 1	2	Jos. Dallaire	2		2.00	2.00
"	Pt. S. Pt. Lot 1	1	Jos. Dallaire	1		1.00	1.00
"	Pt. S. Pt. Lot 1	$\frac{1}{2}$	Paul Antaya	$\frac{1}{2}$		1.00	1.00
"	S. Pt. Lots 1, 2, & 3	76	Nicholas Telek	25	20.00	27.00	47.00
"	W. Pt. SE $\frac{1}{4}$ Lot 3	26-3/4	Frank Pagliaro	10		10.00	10.00
"	Pt. S. Pt. Lot 4	26-3/4	Frank Pagliaro	5		6.00	6.00
Total on Lands -----					\$1,381.00	\$6,541.00	\$ 7,922.00
South Townline Road (Essex County) -----					\$	\$ 12.00	\$ 12.00
South Townline Road (Colchester North Township) -----					\$ 83.00	\$ 68.00	\$ 151.00
West Townline Road (Colchester North Township) -----					\$	\$ 16.00	\$ 16.00
West Townline Road (Essex County) -----					\$ 52.00	\$ 35.00	\$ 87.00
Malden Road (Essex County) -----					\$ 41.00	\$ 31.00	\$ 72.00
South Rear Road (Colchester North Township) -----					\$ 93.00	\$ 93.00	\$ 186.00
Eighth Concession Road (Colchester North Township) -----					\$	\$ 16.00	\$ 16.00
Harrow Road (Essex County) -----					\$	\$ 16.00	\$ 16.00
Road between Lots 4 & 5, (Colchester North Township) -----					\$ 41.00	\$ 27.00	\$ 68.00
Road between Lots 8 & 9, (Colchester North Township) -----					\$	\$ 37.00	\$ 37.00
Road between Lots 12 & 13, (Colchester North Township) -----					\$	\$ 8.00	\$ 8.00

Lot or Part Con. of Lot	Area in Acres	Owner's Names	Acres	Value of Afstd Benefit	Value Outlet Liab.	Total Value of Improv't.
Road between Lots 5 & 6, S.M.R., (Colchester North Twp.)				\$	\$ 35.00	\$ 35.00
Total on Roads				\$ 310.00	\$ 394.00	\$ 704.00
Total on Lands Brought Down				\$1,381.00	\$6,541.00	\$ 7,922.00
TOTAL ASSESSMENT, COLCHESTER NORTH TOWNSHIP				\$1,691.00	\$6,935.00	\$ 8,626.00

ANDERDON TOWNSHIP:

8 W. Pt. Lot 3	91	Mrs. S. Charette	35	31.00	21.00	52.00
" SE. Pt. Lot 3	89	Wm. Kennedy	60	94.00	25.00	119.00
" N. Pt. Lot 2	127	Josephine Green	112	114.00	71.00	185.00
" Pt. SE Pt. Lot 2	4.3	Jerome Chauvin	4.6		3.00	3.00
" Pt. SE Pt. Lot 2	48.7	Francis Jacques	48.7		34.00	34.00
" SW. Pt. Lot 2	20	Mrs. S. Charette	15		10.00	10.00
" W. Pt. Lot 1	32½	Mrs. S. Charette	25		17.00	17.00
" NE. Pt. Lot 1	17½	Francis Jacques	17½		12.00	12.00
" S-3/4 Lot 1	150	Vincent Adams Est.	125		87.00	87.00
" Pt. Lot 1	¼	L. McNorton	¼		1.00	1.00
Total on Lands				\$ 239.00	\$ 281.00	\$ 520.00
East Townline Road (Essex County)				\$ 42.00	\$ 10.00	\$ 52.00
South Townline Road (Essex County)				\$	\$ 6.00	\$ 6.00
3-4 Sideroad				\$ 10.00	\$	\$ 10.00
Total on Roads				\$ 52.00	\$ 16.00	\$ 68.00
Total on Lands Brought Down				\$ 239.00	\$ 281.00	\$ 520.00
TOTAL ASSESSMENT, ANDERDON TOWNSHIP				\$ 291.00	\$ 297.00	\$ 588.00

MALDEN TOWNSHIP:

8 W½ Lot 93	101	G. J. Meloche	16		12.00	12.00
" S½ Lot 94	98	Wm. Allen	25		19.00	19.00
" q W½ Lot 94	98	Ivan Allen	32		23.00	23.00
9 N. Pt. Lot 95	53.5	E. Arquette	53.5		39.00	39.00
" S. Pt. W½ Lot 95	29	E. Arquette	29		20.00	20.00
" SE¼ Lot 95	41	A. Arquette	41		30.00	30.00
" SW¼ Lot 95	40.6	O. Pillon	40		29.00	29.00
" E½ W½ Lot 97	49	A. Marzio	25		19.00	19.00
" E½ 97 exc. NW. Cor.	98	John Kost	80		73.00	73.00
" E¼ Lot 98	98 50	H. Goulet	35		60.00	60.00
" W½ W½ Lot 97	49	John Gyori	5		4.00	4.00

Lot or Part n. of Lot	Area in acres.	Owner's Names	Acres Afctd Benefit	Value of Benefit	Value Outlet Liab.	Total Value of Improv't.
SW. Pt. Lot 96	50	O. Pillon	50		36.00	36.00
Pt. W $\frac{1}{2}$ Lot 96	35	J. Jakobi	35		25.00	25.00
NE. Pt. Lot 96	32	L. Langlois	32		23.00	23.00
Pt. SE. Pt. Lot 96	43	J. Jakobi	43		31.00	31.00
S. Pt. E $\frac{1}{2}$ Lot 96	4	Lawrence Langlois	4		3.00	3.00
SE. Cor. Lot 96	5.6	D. Lucier	5		4.00	4.00
NW. Cor. E $\frac{1}{2}$ Lot 97	$\frac{1}{2}$	Mrs. E. Ouellette	$\frac{1}{2}$		2.00	2.00
Total on Lands -----				\$	\$ 452.00	\$ 452.00
North Townline Road -----				\$	\$ 6.00	\$ 6.00
Pike Road (Essex County) -----				\$	\$ 8.00	\$ 8.00
East Townline Road (Essex County) -----				\$	\$ 16.00	\$ 16.00
East Townline Road (Malden Township) -----				\$	\$ 4.00	\$ 4.00
Road between Concessions 8 and 9 -----				\$	\$ 6.00	\$ 6.00
Total on Roads -----				\$	\$ 40.00	\$ 40.00
Total on Lands Brought Down -----				\$	\$ 452.00	\$ 452.00
TOTAL ASSESSMENT, MALDEN TOWNSHIP -----				\$	\$ 492.00	\$ 492.00

S U M M A R Y

TOTAL ASSESSMENT --- COLCHESTER SOUTH TOWNSHIP -----	\$2,459.00	\$6,274.00	\$ 8,733.00 ✓
TOTAL ASSESSMENT --- COLCHESTER NORTH TOWNSHIP -----	\$1,691.00	\$6,935.00	\$ 8,626.00 ✓
TOTAL ASSESSMENT --- ANDERDON TOWNSHIP -----	\$ 291.00	\$ 297.00	\$ 588.00 ✓
TOTAL ASSESSMENT --- MALDEN TOWNSHIP -----	\$	\$ 492.00	\$ 492.00 ✓
TOTAL ASSESSMENT	\$4,441.00	\$13,998.00	\$18,439.00 ✓

RA/11.


 Engineer for the Township of COLCHESTER

SOUTH

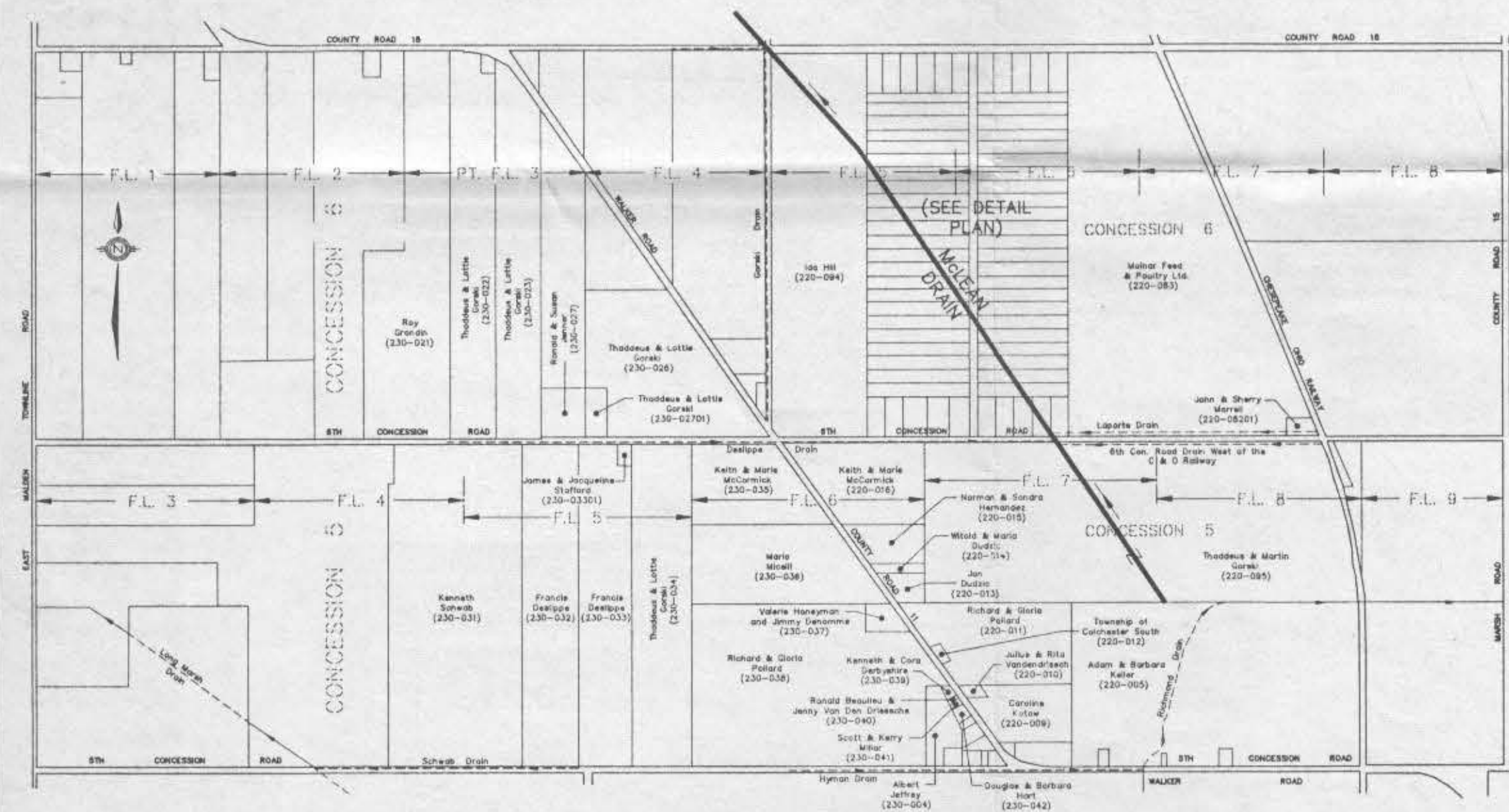
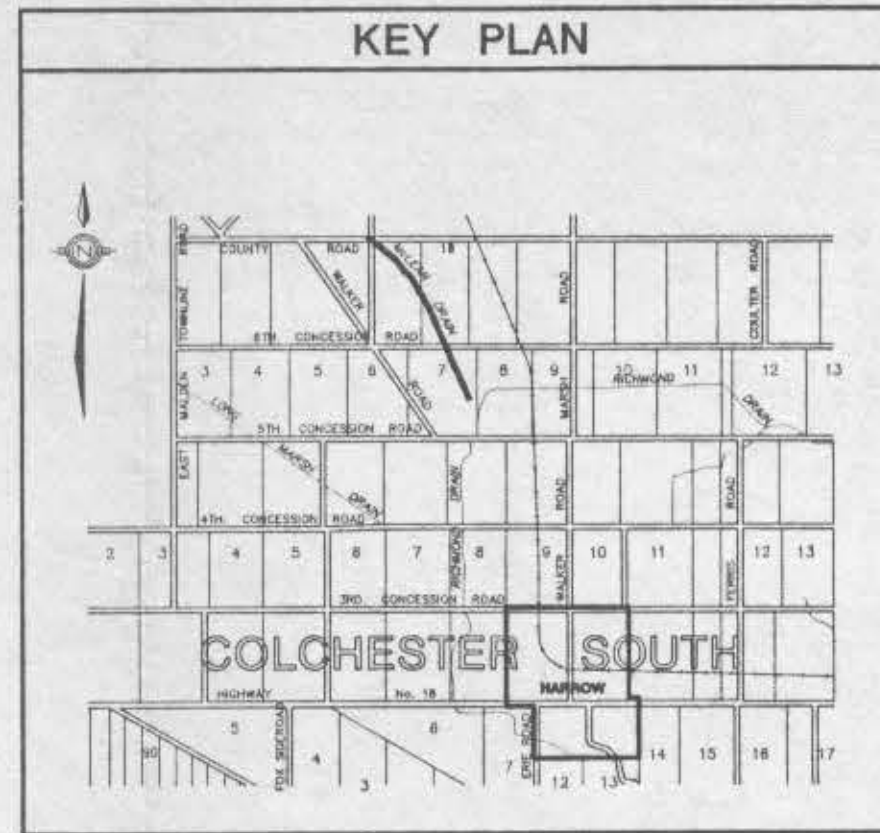
PLAN
SHOWING THE
McLEAN DRAIN
IN THE
TOWNSHIP OF COLCHESTER SOUTH
IN THE
COUNTY OF ESSEX



N.J. PERALTA ENGINEERING LTD.
45 DIVISION STREET NORTH
KINGSTON, ONTARIO, M9Y 1E1

SEPTEMBER 16th, 1994

TOWNSHIP OF COLCHESTER SOUTH
REEVE: RANDY ATKINS
ADMINISTRATOR CLERK: MICHAEL W. GIRARD
DRAINAGE
SUPERINTENDENT: TONY DIORICCO, C.E.T.



WATERSHED PLAN
SCALE = 1:10000

ROAD ALLOWANCE BETWEEN CONCESSIONS 6 and 7						CONCESSIONS 6 and 7				
1	2	3	4	5	6	83	84	85	86	87
Maria & Loretta (220-024)	John Smith (220-025)	James & Patricia (220-026)	Ronald & Deborah (220-027)	James & David (220-028)	Maria & Loretta (220-029)	Rudy & Len (220-030)	Larry & Norman (220-031)	Gary & Dennis (220-032)	Valerie & Anita (220-033)	Michael & Janet (220-034)
			7 George Kellie & Jeanne Benetou-Kellie (220-035)					82 Wile & Bertha (220-035)		
			8 Lana Gray (220-036)					81 Giuseppe & Theresa Riva (220-037)		
			9 Gail & Carmela Calorelli (220-038)					80 Aldo & Agnese Bombieri (220-039)		
			10 Constantine Devecchi (220-039)					59 John & Dorothy Tomaszewski and Suzanne Uhl (220-040)		
			11 Giovanni Cudini (220-041)					58 Wilson & Eileen (220-042)		
			12 Guido Cudini (220-043)					57 John Mackenzie and Deborah Corbett (220-044)		
			13 Giovanni Cudini (220-043)					56 Veronica Hurst (220-045)		
			14 Philip & Cheryl Prentice (220-047)					55 Richard Toffanini (220-048)		
			15 Natalie & Mary Rome (220-048)					54 Brian & Anne Barbour (220-049)		
			16 Gordon Rains (220-049)					53 Joyce & Byron (220-050)		
			17 Ida Mariani Filippini & Maria Riva (220-050)					52 George Rogers (220-051)		
			18 Geraldine Gardner (220-041)	LOT 5				51 Byron & Joyce Seges (220-052)		
			19 Wilson & Eileen Gardner (220-042)					50 Lorenzo & Cathy Bratti (220-053)		
			20 Eileen Gardner (220-043)					49 Robert Green (220-054)		
			21 Natalie & Mary Rome (220-044)					48 Giuseppe & Theresa Riva (220-041)		
			22 Maria Pannunzio (220-045)					47 Theresa Riva (220-040)		
			23 Maria Pannunzio (220-046)					46 Joseph Bujak (220-055)		
			24 Bernard McGraw (220-047)					45 John McNeil (220-056)		
			25 Diana McGraw (220-048)					44 Devadas & Francesco Riva (220-057)		
			26 George & Maria Calorelli (220-049)					43 John & Dorothy Tomaszewski and Suzanne Uhl (220-058)		
			27 Donald & Gail Zukowski (220-050)					42 John Matias (220-055)		
			28 Robert & Linda De Rosa (220-051)					41 Giuseppe & Theresa Riva (220-054)		
			29 Larry & Clara Rogers (220-052)					40 Ida Mariani (220-053)		
34 Loretta & Loretta (220-053)	33 Paul (220-052)	32 Carol & Quinn (220-051)	31 John & Angela (220-050)	30 David, Lillian & Anthony (220-049)		35 Timothy Jankowski & Jean Litvin (220-046)	38 David & Patricia (220-047)	37 Edward & Marilyn (220-048)	36 Loretta & Loretta (220-049)	36 Loretta & Loretta (220-049)

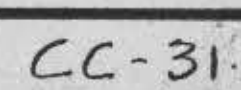
WATERSHED DETAIL PLAN
SCALE = 1:2500

DRAWN BY: D.G.
PLOT CODE: 1w2.5
COMPUTER FILE: SH7-1a1
PROJECT No.: E93-022
SHEET No.: 1 of 1

UNIVERSITY OF TORONTO LIBRARIES
1961
G. B. ARMSTRONG

WINDSOR, ONT. February 2nd, 1959.

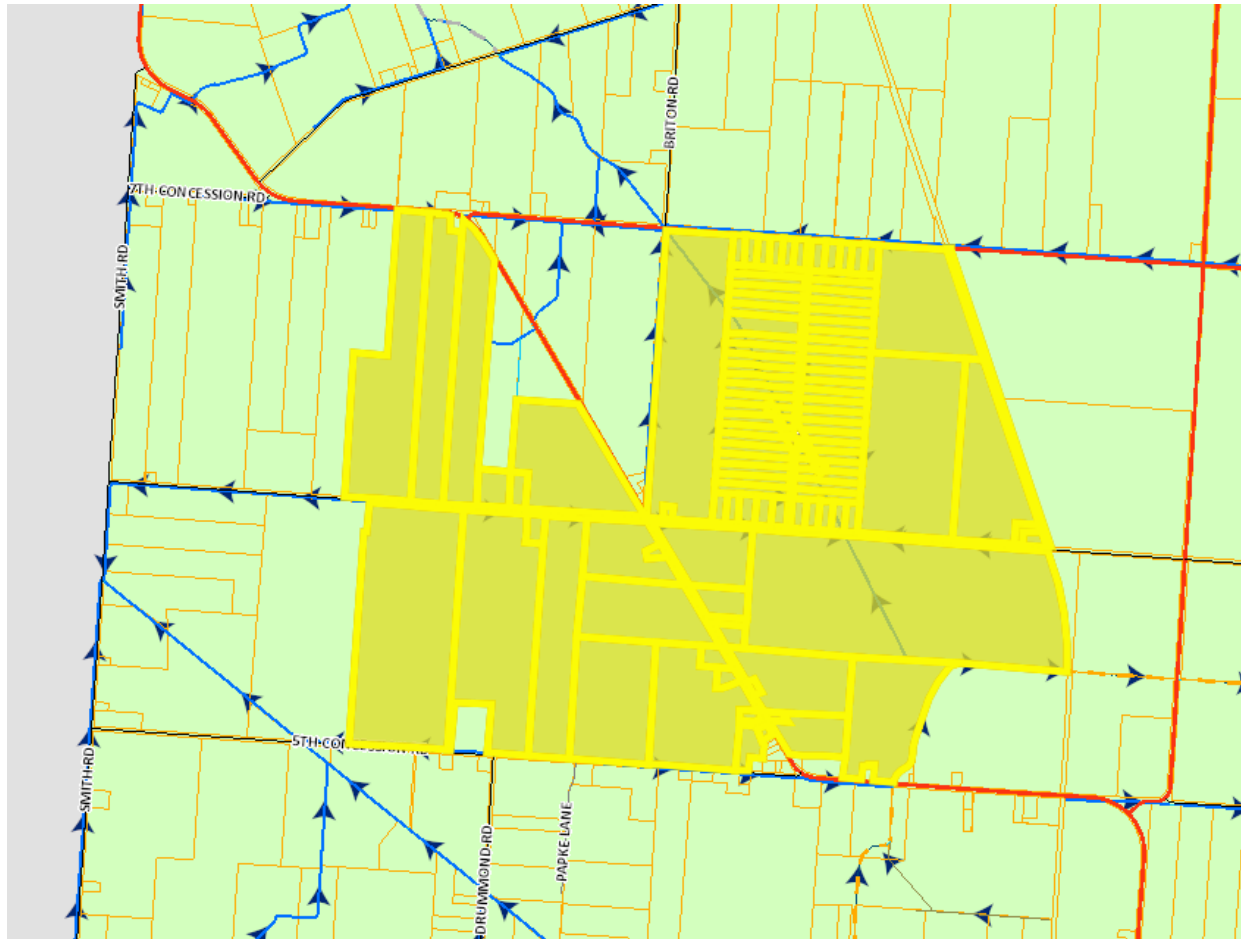
C. S. Armstrong
TOWNSHIP ENGINEER



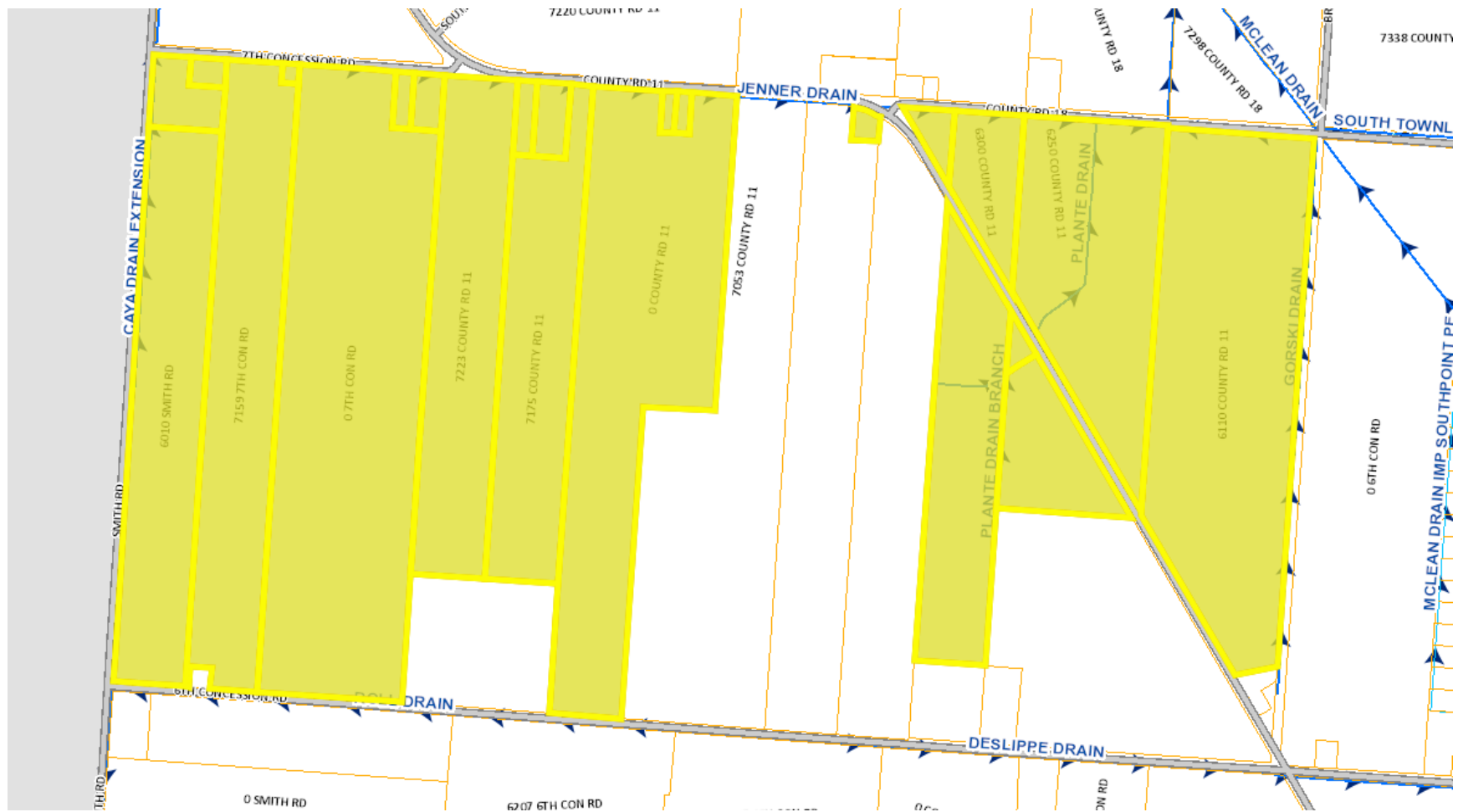
Colchester North – 1959 current schedule information. Some parcels within the watershed are not assessed that should be.



Colchester South – 1994 schedule current schedule assessed parcels



Properties missing between both schedules because the Jenner, Caya, and Gorski Drains pick up water from Colchester South and drain directly into the Colchester North portion of the McLean Drain. This picture excludes 2 properties in Anderdon as well that are draining into the Caya Drain:



By-law 2283
210380

MAINTENANCE SCHEDULE OF ASSESSMENT

MCLEAN DRAIN

TOWNSHIP OF COLCHESTER SOUTH

N. J. Peralta Engineering Ltd.

Consulting Engineers

45 Division St. N., Kingsville, Ontario N9Y 1E1 Tel. (519) 733-6587

Project No. E-93-022

September 16th, 1994

Reeve and Municipal Council
Corporation of the Township of Colchester South
P.O. Box 449
HARROW, Ontario
NOR 1G0

Reeve Atkins and Gentlemen:

SUBJECT: MAINTENANCE SCHEDULE - MCLEAN DRAIN
Township of Colchester South, County of Essex
Project No. E-93-022

Due to the proposed South Point Lane Development, considerable change to these lands with respect to land use, runoff, and hectares affected will result, which justifies the need for a new updated Maintenance Schedule of Assessment for the future maintenance and repair of the McLean Drain. This new Maintenance Schedule of Assessment could have been administered within the Engineers' report being prepared for the proposed Improvements to the McLean Drain within the limits of the development; however, for the purposes of expediting the proposed construction works to the McLean Drain and the development, we have chosen to provide the new Maintenance Schedule of Assessment under a separate report, as herein contained.

The requirement of this new Maintenance Schedule of Assessment, as is the case for the Engineers' report for the Improvements to the McLean Drain, is a requirement under the Subdividers' Agreement, and same is to be totally paid for by the landowners within the South Point Lane Development.

The preparation of the new Maintenance Schedule of Assessment included in this report, has been provided in accordance with Section 76 of the "Drainage Act, R.S.O. 1990, Chapter D.17".

This new Maintenance Schedule of Assessment has been produced based on varying the original Schedule of Assessment for the maintenance and repair of the McLean Drain which was contained and established in the June 10th, 1970 Engineers' report of C.G. Russell Armstrong, P.Eng. (By-law No. 1273). The 1970 Engineers' report consisted of only that portion of the McLean Drain extending from the north side of County Road No. 18, southeasterly and upstream to its' upper end at the Blind Line in Concession 5, near the line between Lot 7 and Lot 8, Concession 5.

In order to confirm the extent and accuracy of the watershed area for this portion of the McLean Drain, we obtained copies of the latest Engineers' reports for the Municipal Drains which exist in the general area, and reviewed same in order to determine their affect, if any, on the watershed area. The Municipal Drains which were reviewed and considered as part of our investigations of the McLean Drain watershed, are as follows:

- Deslippe Drain
- Schwab Drain
- Hyman Drain
- Sixth Concession Road Drain
West of the C & O Railway
- Laporte Drain
- Gorski Drain and Branch

Report - Maintenance Schedule - McLean Drain
Township of Colchester South - E-93-022

The review and investigations of the above Municipal Drains permitted us to confirm the actual watershed area for the McLean Drain, and to re-evaluate the proportions by which the cost of repairing and maintaining the McLean Drain should be levied against the lands and roads affected and benefitting from any future maintenance works conducted to same. We have also, on several occasions, visited the site to take measurements and levels where necessary, on various properties which were in question, and we report on all of the above as follows.

As previously mentioned, the portion of the McLean Drain for which this Maintenance Schedule of Assessment has been prepared for extends from the north limit of County Road 18 southeasterly and upstream to its' upper end at the Blind Line of Concession 5, near the line between Lot 7 and Lot 8, Concession 5. This portion of the McLean Drain consists primarily of an open drain, and a plan showing its' general location, as well as the affected ratepayers in the Township of Colchester South, is attached herein.

The new Maintenance Schedule of Assessment shall provide the Township with an up-to-date maintenance schedule which can be utilized when performing maintenance work in the future along any part of this portion of the McLean Drain. Furthermore, with the new Maintenance Schedule of Assessment in place, it shall permit the Township of Colchester South to properly allocate any future maintenance work to all of the landowners either presently using said portion of the McLean Drain as an outlet and/or benefitting from the proposed maintenance and repairs to same.

During our recent survey of the McLean Drain, as part of its' improvements for the South Point Lane Development, we determined that a portion of said drain northwesterly and downstream of the development is considerably filled-in and shall likely be required to be maintained in the very near future, and the new Maintenance Schedule of Assessment included herein shall prove to be very useful.

Based on all of the above, we would recommend that the total cost, including all incidental expenses, associated with maintaining this portion of the McLean Drain be levied against the lands and roads as outlined and detailed in the accompanying Maintenance Schedule of Assessment attached hereto, and in the proportions therein contained until otherwise determined under the provisions of the "Drainage Act, R.S.O. 1990, Chapter D.17".

We would also recommend that all costs associated with the preparation of this new Maintenance Schedule of Assessment be borne and shared equally by each of the forty-six (46) lot owners of Parcel 7 to Parcel 29 inclusive, and Parcel 40 to Parcel 62 inclusive, within the South Point Lane Development.

The proportions as outlined in the attached Maintenance Schedule of Assessment, have been determined for an estimated maintenance cost of \$7,000.00; however, the actual costs to maintain this portion of the McLean Drain, including all incidental costs and expenses, shall be tallied and then levied against the lands and roads according to the proportions as outlined in said schedule of assessment attached herein.

Report - Maintenance Schedule - McLean Drain
Township of Colchester South - E-93-022

All of which is respectfully submitted.

Yours very truly,

N. J. PERALTA ENGINEERING LTD.


Nick J. Peralta, P.Eng.

NJP\ab



N. J. PERALTA ENGINEERING LTD.
Consulting Engineers
45 Division Street N.
KINGSVILLE, Ontario
N9Y 1E1

att.

MAINTENANCE SCHEDULE OF ASSESSMENT

MCLEAN DRAIN

TOWNSHIP OF COLCHESTER SOUTH

<u>Conc. or Plan No.</u>	<u>Lot or Part of Lot</u>	<u>Tax Roll No.</u>	<u>Owner's Name</u>	<u>Hectares Afft'd.</u>	<u>(Acres Afft'd.)</u>	<u>Value of Benefit</u>	<u>Value of Outlet</u>	<u>TOTAL VALUE</u>
Con. 5	Pt. Lots 4 & 5	230-031	Kenneth Schwab	*14.17	(35.00)		98.00	98.00
Con. 5	Pt. Lot 5	230-032	Francis Deslippe	*10.12	3.71 (25.00)		70.00	70.00 26
Con. 5	Pt. Lot 5	230-033	Francis Deslippe	* 9.81	16.22 (24.24)		68.00	68.00 112
Con. 5	Pt. Lot 5	230-03301	James & Jacqueline Stafford	0.42	(1.03)		9.00	9.00
Con. 5	Pt. Lot 5	230-034	Thaddeus & Lottie Gorski	*16.19	(40.00)		112.00	112.00
Con. 5	Pt. Lot 6	230-035	Keith & Marie McCormick	*10.52	(26.00)		73.00	73.00
Con. 5	Pt. Lot 6	230-036	Mario Micelli	*15.33	(37.88)		106.00	106.00
Con. 5	Pt. Lot 6	230-037	Valerie Honeyman & Jimmy Denomme	1.13	(2.80)		16.00	16.00
Con. 5	Pt. Lot 6	220-016	Keith & Marie McCormick	*10.12	(25.00)	47.00	70.00	117.00
Con. 5	Pt. Lot 6	220-015	Norman & Sandra Hernandez	* 2.91	(7.20)	18.00	20.00	38.00
Con. 5	Pt. Lot 6	220-014	Witold & Maria Dudzic	0.53	(1.30)	4.00	10.00	14.00
Con. 5	Pt. Lot 6	220-013	Jan Dudzic	* 1.21	(3.00)	8.00	9.00	17.00
Con. 5	Pt. Lots 6 & 7	220-011	Richard & Gloria Pollard	*13.44	(33.21)		206.00	206.00
Con. 5	Pt. Lots 6 & 7	230-038	Richard & Gloria Pollard	*39.84	(98.44)		568.00	568.00

Maintenance Schedule of Assessment - McLean Drain
Township of Colchester South - E-93-022

<u>Conc. or Plan No.</u>	<u>Lot or Part of Lot</u>	<u>Tax Roll No.</u>	<u>Owner's Name</u>	<u>Hectares Afft'd.</u>	<u>(Acres Afft'd.)</u>	<u>Value of Benefit</u>	<u>Value of Outlet</u>	<u>TOTAL VALUE</u>
Con. 5	Pt. Lot 7	230-039	Kenneth & Cora Derbyshire	0.17	(0.43)	2.00	10.00	12.00
Con. 5	Pt. Lot 7	230-040	Ronald Beaulieu & Jenny Van Den Driessche	0.08	(0.20)	2.00	4.00	6.00
Con. 5	Pt. Lot 7	230-041	Scott & Kerry Millar	0.08	(0.20)	2.00	4.00	6.00
Con. 5	Pt. Lot 7	230-042	Douglas & Barbara Hart	0.26	(0.65)	2.00	14.00	16.00
Con. 5	Pt. Lot 7	230-004	Albert Jeffrey	0.94	(2.33)	5.00	22.00	27.00
Con. 5	Pt. Lot 7	220-012	Township of Colchester South	0.25	(0.62)	2.00	12.00	14.00
Con. 5	Pt. Lot 7	220-010	Julius & Rita Vandendrissch	0.40	(1.00)	2.00	19.00	21.00
Con. 5	Pt. Lot 7	220-009	Caroline Kotow	* 2.83	(7.00)	14.00	48.00	62.00
Con. 5	Pt. Lot 7	⁸²⁰ 220-005	Adam & Barbara Keller	*12.14	(30.00)	93.00	204.00	297.00
Con. 5	Pt. Lots 7 & 8	220-095	Thaddeus & Martin Gorski	*76.09	(188.00)	606.00	860.00	1,466.00
Con. 5	Pt. Lots 7 & 8		Chesapeake & Ohio Railway	1.21	(3.00)	20.00	17.00	37.00
Con. 6	Pt. Lots 2 & 3	230-021	Roy Grondin	* 2.02	(5.00)		14.00	14.00
Con. 6	Pt. Lot 3	230-022	Thaddeus & Lottie Gorski	* 2.02	(5.00)		14.00	14.00
Con. 6	Pt. Lot 3	230-023	Thaddeus & Lottie Gorski	* 3.24	(8.00)		22.00	22.00

Maintenance Schedule of Assessment - McLean Drain
Township of Colchester South - E-93-022

<u>Conc. or Plan No.</u>	<u>Lot or Part of Lot</u>	<u>Tax Roll No.</u>	<u>Owner's Name</u>	<u>Hectares Afft'd.</u>	<u>(Acres Afft'd.)</u>	<u>Value of Benefit</u>	<u>Value of Outlet</u>	<u>TOTAL VALUE</u>
Con. 6	Pt. Lot 3	230-027	Ronald & Susan Jenner	* 2.43	(5.99)		20.00	20.00
Con. 6	Pt. Lot 4	230-026	Thaddeus & Lottie Gorski	* 2.43	(6.00)		17.00	17.00
Con. 6	Pt. Lot 4	230-02701	Thaddeus & Lottie Gorski	* 1.24	(3.07)		13.00	13.00
Con. 6	Pt. Lot 5	220-094	Ida Hill	*40.27	(99.50)	307.00	100.00	407.00
Con. 6	Pt. Lot 5, PCL 1	220-024	Mark & Vernita Wilson	0.78	(1.92)	5.00	4.00	9.00
Con. 6	Pt. Lot 5, PCL 2	220-025	John Brussa	0.78	(1.92)	5.00	4.00	9.00
Con. 6	Pt. Lot 5, PCL 3	220-026	James & Patricia Wright	0.78	(1.92)	5.00	4.00	9.00
Con. 6	Pt. Lot 5, PCL 4	220-027	Ronald & Deborah Nichol	0.78	(1.92)	5.00	4.00	9.00
Con. 6	Pt. Lot 5, PCL 5	220-028	James & Sheila Krug	0.78	(1.92)	5.00	4.00	9.00
Con. 6	Pt. Lots 5 & 6, PCL 6	220-029	Mario Marrocco	0.78	(1.92)	5.00	4.00	9.00
Con. 6	Pt. Lots 5 & 6, PCL 7	220-030	George Keltika & Jeanne Beneteau-Keltika	1.30	(3.20)	8.00	10.00	18.00
Con. 6	Pt. Lots 5 & 6, PCL 8	220-031	Lana Grayer	1.54	(3.80)	8.00	11.00	19.00
Con. 6	Pt. Lots 5 & 6, PCL 9	220-032	Giulio & Carmela Caldarelli	1.54	(3.80)	10.00	11.00	21.00

Maintenance Schedule of Assessment - McLean Drain
Township of Colchester South - E-93-022

<u>Conc. or Plan No.</u>	<u>Lot or Part of Lot</u>	<u>Tax Roll No.</u>	<u>Owner's Name</u>	<u>Hectares Afft'd.</u>	<u>(Acres Afft'd.)</u>	<u>Value of Benefit</u>	<u>Value of Outlet</u>	<u>TOTAL VALUE</u>
Con. 6	Pt. Lots 5 & 6, PCL 10	220-033	Constantino Devecchi	1.54	(3.80)	13.00	11.00	24.00
Con. 6	Pt. Lots 5 & 6, PCL 11	220-034	Giovanna Cudini	1.54	(3.80)	15.00	11.00	26.00
Con. 6	Pt. Lots 5 & 6, PCL 12	220-035	Guido Cudini	1.54	(3.80)	15.00	11.00	26.00
Con. 6	Pt. Lots 5 & 6, PCL 13	220-036	Giovanna Cudini	1.54	(3.80)	15.00	11.00	26.00
Con. 6	Pt. Lots 5 & 6, PCL 14	220-037	Philip & Cheryle Prentice	1.54	(3.80)	15.00	11.00	26.00
Con. 6	Pt. Lots 5 & 6, PCL 15	220-038	Natale & Mary Roma	1.54	(3.80)	15.00	11.00	26.00
Con. 6	Pt. Lots 5 & 6, PCL 16	220-039	Gordon Sturm	1.54	(3.80)	15.00	11.00	26.00
Con. 6	Pt. Lots 5 & 6, PCL 17	220-040	Ilde Mariani and Filippina & Maria Rizzo	1.54	(3.80)	15.00	11.00	26.00
Con. 6	Pt. Lots 5 & 6, PCL 18	220-041	Geraldine Gardiner	1.54	(3.80)	15.00	11.00	26.00
Con. 6	Pt. Lots 5 & 6, PCL 19	220-042	Wilson & Eileen Gardiner	1.54	(3.80)	15.00	11.00	26.00

Maintenance Schedule of Assessment - McLean Drain
Township of Colchester South - E-93-022

<u>Conc. or Plan No.</u>	<u>Lot or Part of Lot</u>	<u>Tax Roll No.</u>	<u>Owner's Name</u>	<u>Hectares Afft'd.</u>	<u>(Acres Afft'd.)</u>	<u>Value of Benefit</u>	<u>Value of Outlet</u>	<u>TOTAL VALUE</u>
Con. 6	Pt. Lots 5 & 6, PCL 20	220-043	Eileen Gardiner	1.52	(3.76)	15.00	11.00	26.00
Con. 6	Pt. Lots 5 & 6, PCL 21	220-044	Natale & Mary Roma	1.35	(3.34)	15.00	10.00	25.00
Con. 6	Pt. Lots 5 & 6, PCL 22	220-045	Marie Pannunzio	1.43	(3.53)	15.00	10.00	25.00
Con. 6	Pt. Lots 5 & 6, PCL 23	220-046	Marie Pannunzio	1.43	(3.53)	15.00	10.00	25.00
Con. 6	Pt. Lots 5 & 6, PCL 24	220-047	Bernard McGraw	1.44	(3.55)	13.00	10.00	23.00
Con. 6	Pt. Lots 5 & 6, PCL 25	220-048	Diana McGraw	1.53	(3.78)	10.00	11.00	21.00
Con. 6	Pt. Lots 5 & 6, PCL 26	220-049	George & Maria Coscarella	1.54	(3.80)	10.00	11.00	21.00
Con. 6	Pt. Lots 5 & 6, PCL 27	220-050	Donald & Gail Ziolkowski	1.54	(3.80)	8.00	11.00	19.00
Con. 6	Pt. Lots 5 & 6, PCL 28	220-051	Robert & Linda De Rose	1.54	(3.80)	8.00	11.00	19.00
Con. 6	Pt. Lots 5 & 6, PCL 29	220-052	Larry & Clara Rogers	1.54	(3.80)	6.00	11.00	17.00

Maintenance Schedule of Assessment - McLean Drain
Township of Colchester South - E-93-022

<u>Conc. or Plan No.</u>	<u>Lot or Part of Lot</u>	<u>Tax Roll No.</u>	<u>Owner's Name</u>	<u>Hectares Afft'd.</u>	<u>(Acres Afft'd.)</u>	<u>Value of Benefit</u>	<u>Value of Outlet</u>	<u>TOTAL VALUE</u>
Con. 6	Pt. Lot 6, PCL 40	220-053	Ilde Mariani	1.40	(3.45)	15.00	10.00	25.00
Con. 6	Pt. Lot 6, PCL 41	220-054	Giuseppe & Therese Rizzo	1.40	(3.45)	15.00	10.00	25.00
Con. 6	Pt. Lot 6, PCL 42	220-055	John Matisz	1.38	(3.42)	15.00	10.00	25.00
Con. 6	Pt. Lot 6, PCL 43	220-056	John & Dorothy Tamasovics and Suzanne Ujj	1.21	(2.99)	15.00	9.00	24.00
Con. 6	Pt. Lot 6, PCL 44	220-057	Osvaldo & Francesco Rizzo	1.29	(3.18)	15.00	9.00	24.00
Con. 6	Pt. Lot 6, PCL 45	220-058	John Matisz	1.29	(3.18)	15.00	9.00	24.00
Con. 6	Pt. Lot 6, PCL 46	220-059	Jozsef Bujaki	1.27	(3.15)	15.00	9.00	24.00
Con. 6	Pt. Lot 6, PCL 47	220-060	Therese Rizzo	1.38	(3.42)	15.00	10.00	25.00
Con. 6	Pt. Lot 6, PCL 48	220-061	Giuseppe & Therese Rizzo	1.40	(3.45)	13.00	10.00	23.00
Con. 6	Pt. Lot 6, PCL 49	220-062	Robert Grayer	1.40	(3.45)	10.00	10.00	20.00
Con. 6	Pt. Lot 6, PCL 50	220-063	Lorenzo & Cathy Bisutti	1.40	(3.45)	9.00	10.00	19.00
Con. 6	Pt. Lot 6, PCL 51	220-064	Byron & Joyce Segee	1.40	(3.45)	8.00	10.00	18.00
Con. 6	Pt. Lot 6, PCL 52	220-065	George Rogers	1.40	(3.45)	7.00	10.00	17.00
Con. 6	Pt. Lot 6, PCL 53	220-066	Joyce & Byron Segee	1.40	(3.45)	6.00	10.00	16.00
Con. 6	Pt. Lot 6, PCL 54	220-067	Brian & Anne Barbour	1.40	(3.45)	5.00	10.00	15.00

Maintenance Schedule of Assessment - McLean Drain
Township of Colchester South - E-93-022

<u>Conc. or Plan No.</u>	<u>Lot or Part of Lot</u>	<u>Tax Roll No.</u>	<u>Owner's Name</u>	<u>Hectares Afft'd.</u>	<u>(Acres Afft'd.)</u>	<u>Value of Benefit</u>	<u>Value of Outlet</u>	<u>TOTAL VALUE</u>
Con. 6	Pt. Lot 6, PCL 55	220-068	Richard Tofflemire	1.40	(3.45)	5.00	10.00	15.00
Con. 6	Pt. Lot 6, PCL 56	220-069	Veronika Huszti	1.40	(3.45)	5.00	10.00	15.00
Con. 6	Pt. Lot 6, PCL 57	220-070	John Mackenzie and Deborah Carder	1.40	(3.45)	5.00	10.00	15.00
Con. 6	Pt. Lot 6, PCL 58	220-071	Wilson & Eileen Gardiner	1.40	(3.45)	5.00	10.00	15.00
Con. 6	Pt. Lot 6, PCL 59	220-072	John & Dorothy Tamasovics and Suzanne Ujj	1.40	(3.45)	5.00	10.00	15.00
Con. 6	Pt. Lot 6, PCL 60	220-073	Aldo & Agnese Bomben	1.40	(3.45)	5.00	10.00	15.00
Con. 6	Pt. Lot 6, PCL 61	220-074	Giuseppe & Therese Rizzo	1.40	(3.45)	5.00	10.00	15.00
Con. 6	Pt. Lot 6, PCL 62	220-075	Willie & Bertha Gaskin	1.17	(2.90)	5.00	8.00	13.00
Con. 6	Pt. Lot 6, PCL 63	220-076	Timothy Ruddy and Lori Challans	0.89	(2.20)	5.00	4.00	9.00
Con. 6	Pt. Lot 6, PCL 64	220-077	Laura & Norman Laur	0.85	(2.10)	5.00	4.00	9.00
Con. 6	Pt. Lot 6, PCL 65	220-078	Gary & Donna Goebel	0.73	(1.80)	5.00	4.00	9.00
Con. 6	Pt. Lot 6, PCL 66	220-079	Valentino & Anita Pistor	0.85	(2.10)	5.00	4.00	9.00
Con. 6	Pt. Lot 6, PCL 67	220-080	Michael & Perri Crerar	0.85	(2.10)	5.00	4.00	9.00
Con. 6	Pt. Lot 6, PCL 39	220-084	Loretta Lenarduzzi	0.81	(2.00)	15.00	8.00	23.00
Con. 6	Pt. Lot 6, PCL 38	220-085	Ludvic & Cecilia Drobnic	0.81	(2.00)	15.00	8.00	23.00

Maintenance Schedule of Assessment - McLean Drain
Township of Colchester South - E-93-022

Conc. or Plan No.	Lot or Part of Lot	Tax Roll No.	Owner's Name	Hectares Afft'd.	(Acres Afft'd.)	Value of Benefit	Value of Outlet	TOTAL VALUE
Con. 6	Pt. Lot 6, PCL 37	220-086	Edward & Marilyn Busko	0.81	(2.00)	15.00	8.00	23.00
Con. 6	Pt. Lot 6, PCL 36	220-087	Glenn & Patricia Hennin	0.81	(2.00)	15.00	8.00	23.00
Con. 6	Pt. Lot 6, PCL 35	220-088	Timothy Jamieson and Jean Laforge	0.81	(2.00)	15.00	8.00	23.00
Con. 6	Pt. Lots 5 & 6, PCL 30	220-089	Claude Loignon and Antoinette Meloche	0.97	(2.40)	8.00	9.00	17.00
Con. 6	Pt. Lot 5, PCL 31	220-090	John & Audrey Sprague	0.97	(2.40)	5.00	9.00	14.00
Con. 6	Pt. Lot 5, PCL 32	220-091	Colleen Quinlan	1.05	(2.60)	5.00	10.00	15.00
Con. 6	Pt. Lot 5, PCL 33	220-092	Paul Popov	0.77	(1.90)	5.00	8.00	13.00
Con. 6	Pt. Lot 5, PCL 34	220-093	Lawrence & Joanne Sealey	0.77	(1.90)	5.00	8.00	13.00
Con. 6	Pt. Lots 6 & 7	820-0832 220-083	Molnar Feed & Poultry Ltd.	0.61	(1.45)	100.00	443.00	543.00
Con. 6	Pt. Lot 7	820-0831 220-08201	John & Sherry Morrell	0.59	(1.45)	2.00	11.00	13.00
TOTAL ON LANDS						1,901.00	3,903.00	5,804.00
6th Concession Road						264.00	220.00	484.00
Road Between Lots 4 & 5, Con. 6							27.00	27.00

Maintenance Schedule of Assessment - McLean Drain
Township of Colchester South - E-93-022

<u>Conc. or Plan No.</u>	<u>Lot or Part of Lot</u>	<u>Tax Roll No.</u>	<u>Owner's Name</u>	<u>Hectares Afft'd.</u>	<u>(Acres Afft'd.)</u>	<u>Value of Benefit</u>	<u>Value of Outlet</u>	<u>TOTAL VALUE</u>
	County Road 11		County of Essex			100.00	131.00	231.00
	County Road 18		County of Essex				52.00	52.00
	Rizzo Nicola Road		South Point Lane Inc. c/o Giuseppe Rizzo			199.00	73.00	272.00
	Catherine Duransky Drive		South Point Lane Inc. c/o Giuseppe Rizzo			50.00	15.00	65.00
	South Point Drive		South Point Lane Inc. c/o Giuseppe Rizzo			50.00	15.00	65.00
TOTAL ON ROADS						663.00	533.00	1,196.00
TOTAL ON LANDS (brought forward)						1,901.00	3,903.00	5,804.00
TOTAL ASSESSMENT						\$2,564.00	\$4,436.00	\$7,000.00

* Denotes lands used for agricultural purposes.

1 Hectare = 2.4707 Acres

210380: 1994
By-law 2283



THE CORPORATION OF THE TOWN OF AMHERSTBURG

OFFICE OF ENGINEERING AND PUBLIC WORKS

MISSION STATEMENT: Committed to delivering cost-effective and efficient services for the residents of the Town of Amherstburg with a view to improve and enhance their quality of life.

Author's Name: Sam Paglia	Report Date: February 3, 2025
Author's Phone: 519 736-3664 ext. 2318	Date to Drainage Board: February 25, 2025
Author's E-mail: spaglia@amherstburg.ca	Resolution #: N/A

To: Members of the Drainage Board

Subject: Section 4 Petition by Road Authority – Engineering Appointment

1. RECOMMENDATION:

It is recommended that:

1. The report from the Drainage Superintendent and Engineering Coordinator dated February 3, 2025 regarding the Section 4 Petition by Road Authority – Engineering Appointment **BE RECEIVED**;
2. The Drainage Board recommend that Council **ACCEPT** the request from the Road Authority(s) on the requirement for drainage on Concession 3N. under Section 4 of the Drainage Act; and,
3. The Drainage Board recommend the appointment of Josh Warner, P.Eng., of R. Dobbin Engineering Inc., under Section 4 of the Drainage Act for the examination and report on the Concession 3N. Drainage scheme **BE APPROVED** by Council.

2. BACKGROUND:

The Town received a Petition for Drainage Works by Road Authority (Form 2) on January 14, 2025 and has been actively communicating with the road authority, relevant agencies and affected landowners/parties discussing the petition for legal outlet for the stormwater that the Town lands (roads) receives. In order to obtain legal outlet, the private ditch must be brought through the procedures under the Drainage Act (Act) to become and provide a legal outlet.

3. DISCUSSION:

A motion was passed at councils' February 13, 2023 RCM to authorize administration to utilize a roster for drainage services under the Act. Among others, R. Dobbin Engineering Inc. was selected to be included as part of this roster and is thereby eligible to examine and prepare a drainage report pursuant to Section 4 of the Act for this petition drain.

The current petition received by the Road Authority is deemed valid under Section 4(1)(c) of the Act because a road has petitioned for drainage. Therefore, the examining engineer will examine and report on the entire drainage scheme and submit a drainage report that provides not only the most economical and efficient solution to what could have been a common law matter, but also provides the legal outlet required by the Road in order to outlet and convey its water safely to a sufficient outlet. It also provides a mechanism for the Town to recover all costs fairly, and by By-Law for the construction and future maintenance of the drain and for the benefit of all the lands that use the drain.

The engineer, in their examination will provide recommendations to create a drainage system that provides a functional design as a base requirement and will include any improvements to the drain necessary by the request as well as account for the land uses in the watershed, adjacent watersheds, comments from affected landowners and required regulations to provide a report for the benefit of the community of landowners on that drain. The stormwater from affected lands within the watershed and the project itself, will progress, and be considered using a watershed approach and will follow the communal procedures to accomplish a standard level of service for all affected landowners in the watershed that meets all the requirements under the Act.

4. RISK ANALYSIS:

There is more risk if council does not accept a request for drainage works than there is in accepting one. Not only does council have the responsibility to repair and maintain existing drainage works under the Act, there is an obligation for council to provide finance with the funds necessary for all works related to drainage under the Act and all funds are recoverable by the users of the drain which may include the Town. The Engineer appointed by council has the requirement to determine how any costs incurred and associated with the request are to be collected by the Town. Landowners can appeal if council does not accept the request for drainage.

5. FINANCIAL MATTERS:

The financial implications will be determined by the appointed engineer and the community of landowners through the process and the engineers' report will provide a schedule of assessment for the recommended works along with future maintenance schedules for culvert sharing as well as future maintenance work.

All affected lands/roads and agencies are involved in the process and upstream lands are assessed for anything deemed necessary to carry stormwater safely to a sufficient

outlet from their lands. All affected landowners have the opportunity to appeal the recommended works or assessment through the process under the Act.

The Town is assessed for its land(s) or road(s) within the watershed that contribute stormwater as well as their lands receiving the legal outlet. The Town is also tasked with administering the project through the procedures of the Act and funding the project in its entirety, and until costs can be recovered through the assessment schedule adopted under the drains' By-Law. Once the recommended solution under bylaw is constructed the Town recovers 100% of the cost of the project from all landowners affected based on the ratios provided and adopted in the engineers' report that is appended to the adopted By-Law exclusive of the cost to administer the process,. The Towns assessment for their share of drainage is taken from the drain reserve fund.

6. CONSULTATIONS:

ERCA and Species at Risk Ontario have been notified of the requests received, and have the opportunity to ask for an environmental appraisal on the proposed area. If they wish to, they must pay for that appraisal under Section 6(1) regarding environmental appraisals. An ERCA permit will be required under Section 28 of the Conservation Authorities Act for this project.

7. CONCLUSION:

Administration is recommending that the request for improvement be accepted and that R. Dobbin Engineering Inc. be appointed for this request.



Sam Paglia, P.Eng.,
Drainage Superintendent and Engineering Coordinator

Attachment(s): Request(s) for Improvement received.



**Petition for Drainage Works by Road
Authority – Form 2**

Drainage Act, R.S.O. 1990, c. D.17, subs. 4(1)(c)

To: The Council of the Corporation of the Town of Amherstburg

Re: Road name and road location (provide description of road or section of road that requires drainage)

East side of Concession 3 North - Long Marsh Drain to North Side Road

Roadside Ditch Enclosure and roadside ditch improvements

Roadside ditch is accepting private water from farm and residential properties

I, Eric Chamberlain, as an individual having jurisdiction over
(Last, first name)

the above road system for the Town of Amherstburg

declare that the road described above requires drainage and hereby petition under subsection 4(1)(c) of the *Drainage Act* that
this area be drained by means of a drainage works.

Organization

Town of Amherstburg

Position Title

Manager of Roads and Fleet

Signature

Date (yyyy/mm/dd)

2025/01-14

Petitioners become financially responsible as soon as they sign a petition:

- Once the petition is accepted by council, an engineer is appointed to respond to the petition. *Drainage Act*, R.S.O. 1990, c. D. 17 subs. 8(1).
- After the meeting to consider the preliminary report, if the petition does not comply with section 4, the project is terminated and the road authority is responsible for the costs. *Drainage Act*, R.S.O. 1990, c. D. 17 subs. 10(4).
- After the meeting to consider the final report, if the petition does not comply with section 4, the project is terminated and the road authority is responsible for the costs. *Drainage Act*, R.S.O. 1990, c. D. 17 s. 43.
- If the project proceeds to completion, a share of the cost of the project will be assessed to the involved properties in relation to the assessment schedule in the engineer's report, as amended on appeal. *Drainage Act*, R.S.O. 1990, c. D. 17 s. 61.



THE CORPORATION OF THE TOWN OF AMHERSTBURG

OFFICE OF ENGINEERING AND PUBLIC WORKS

MISSION STATEMENT: Committed to delivering cost-effective and efficient services for the residents of the Town of Amherstburg with a view to improve and enhance their quality of life.

Author's Name: Sam Paglia	Report Date: February 10, 2025
Author's Phone: 519 736-3664 ext. 2318	Date to Drainage Board: February 25, 2025
Author's E-mail: spaglia@amherstburg.ca	Resolution #: N/A

To: Members of the Drainage Board

Subject: Various Drainage Apportionments

1. **RECOMMENDATION:**

It is recommended that:

1. The report from the Drainage Superintendent and Engineering Coordinator dated February 10, 2024, regarding various drainage apportionments **BE RECEIVED**;
2. The drainage apportionments **BE APPROVED** as listed:
 - Consent **B/32/22, B/11/24, B/15-17/24 and B/22/24** drainage apportionments for various Municipal Drains.
3. Administration **BRING FORWARD** the Drainage Board's recommendation to approve the drainage apportionments at a future Regular Council Meeting.

2. **BACKGROUND:**

Under the provisions of the Drainage Act (Act), when lands that are assessed for drainage are subsequently divided by a change of ownership of any part, the respective drainage assessments should be accounted for. The Town must take steps to apportion the assessments to reflect the division of the lands as well as maintain a functional assessment schedule for the benefit of the entire watershed for any of the affected drainage schemes.

This report deals with various drainage apportionments, each of which may be associated with separate, individual conditions of severance.

3. **DISCUSSION:**

Section 65 of the Act discusses the obligation of the Town to apportion existing drainage assessments when lands are subsequently sub-divided. Council's authority to permit lands to subsequently connect or disconnect from a drainage works. In this case, specifically, Section 65(2) provides the Town with the necessary provisions to complete assessment apportionments when landowners of the subdivided lands agree on the shares of the assessment.

Agreement on share of assessment

65. (2) If the owners of the subdivided land mutually agree on the share of the drainage assessment that each should pay, they may enter into a written agreement and file it with the clerk of the local municipality and, if the agreement is approved by the council by resolution, no engineer need be instructed under subsection (1). 2010, c. 16, Sched. 1, s. 2 (26).

Section 65(1) of the Drainage Act provides the Town with the option of instructing an engineer to complete the drainage apportionments:

Subsequent subdivision of land

65. (1) If, after the final revision of an engineer's assessment of land for a drainage works, the land is divided by a change in ownership of any part, the clerk of the local municipality in which the land is situate shall instruct an engineer in writing to apportion the assessment among the parts into which the land was divided, taking into account the part of the land affected by the drainage works. 2010, c. 16, Sched. 1, s. 2 (26).

An engineer was not instructed under Section 65(1) of the Act. In the case of the land divisions and severances being considered under this report, apportionments were completed by the Drainage Superintendent and Engineering Coordinator. Assessment schedules for drains that were affected by each land severance were analysed by area and land use, and apportioned accordingly based on the volume of water expected to flow from those lands.

Once completed, all affected landowners were contacted and provided a letter that described the apportionments. If the landowners were in agreement with the apportionments, an "*Agreement between Property Owners for Drain Apportionments due to Land Severance or Sale*" was signed by the affected property owners in accordance with Section 65(2) of the Act.

It is important to note that an apportionment does not set new values. The ratio in the current bylaw for the affected lands is apportioned to the affected lands in the severance accordingly. When several apportionments are completed on one particular drain, the assessment to lands not affected by severance becomes more and more unfair as more apportionments are completed. Therefore, S. 65 apportionments are only valid until such time as an engineer is appointed by council on the respective drains, where the engineer is obligated to assess all lands and roads in the watershed. Any lands affected by apportionment will likely be re-assessed a different value determined by the appointed engineer, and in an unbiased nature within the schedule of assessments in that report which becomes appended to the new bylaw for the drain.

In the case of the following severances, agreement letters were signed by all affected property owners and are attached:

- Consent **B/32/22, B/11/24, B/15-17/24 and B/22/24** drainage apportionments for various Municipal Drains.

Apportionment agreements, once accepted by the Drainage Board and approved by council through resolution, will be reflected in the assessments of all current and future maintenance works on any of the affected drains listed in each agreement.

4. RISK ANALYSIS:

Under the provisions of the Drainage Act, when lands that are assessed for drainage are subsequently divided by a change of ownership of any part, it is the Town's obligation to take steps to apportion the assessments to reflect the liability of drainage assessments related to the division of those lands. Failing to do so could lead to unfair assessments of drain maintenance costs that do not accurately reflect the accurate ownership of lands within drainage watersheds. This could lead to conflicts between the Town and landowners over drainage assessments and potentially, the denial of agricultural grants from the Ontario Ministry of Agriculture, Food and Rural Affairs (OMAFRA).

5. FINANCIAL MATTERS:

An administration fee of \$500.00 is charged by the Planning Department to an owner of land that wishes to sever a portion of his or her lands.

6. CONSULTATIONS: - N/A

7. CONCLUSION:

Administration is recommending that the drainage apportionments be approved as listed and that said apportionments be approved by council resolution:



Sam Paglia, P.Eng.,
Drainage Superintendent and Engineering Coordinator

Attachment(s):

- Consent **B/32/22, B/11/24, B/15-17/24 and B/22/24** drainage apportionments for various Municipal Drains.



The Corporation of The Town of Amherstburg

January 7, 2025

RE: Section 65 Drainage Apportionment – Consent B/32/22

Dear Landowner:

This letter is to advise you of changes to the drainage assessment for your property for the parcel located at [REDACTED], legally described as ANDERDON CON 1 P GORE LOT, RP 12R27907 PART 7 with Roll number [REDACTED]. This is in relation to the Application for Consent B/32/22, which proposes to sever a 0.48 hectare parcel of land from the existing parcel. The retained parcel area shall be 0.97 hectare and shall be considered neighborhood commercial for the purpose of this apportionment.

The re-apportionment of the drainage assessments for the lands described above proposed under this letter is in accordance with Section 65(2) of the "Drainage Act, R.S.O. 1990, Chapter D.17, as amended in 2010." It is the responsibility of every landowner in Ontario to not only capture, but convey the stormwater that their lands receive to a sufficient outlet. Typically, this is accomplished through drainage infrastructure. These apportionments are only in relation to the Municipal Drains governed by the Act, and are only to be used until such time as Council appoints an Engineer to update the current bylaw for the affected lands.

Administration for the Town of Amherstburg has reviewed all municipal drain reports under bylaw in order to complete the re-apportionments of drainage assessments for the subject lands. Said lands are located within the following watersheds, and are assessed into the following municipal drains constructed by bylaw under the Drainage Act:

1. **Ouellette Drain East** – Report by BairdAE dated August 22, 2014, by-law 2016-078
2. **Long Marsh Drain** – Report by Peralta, dated January 27, 1993, by-law 3032.

If you are in agreement with the new breakdown of your property listed in the attached chart(s), please have all registered owners of your property sign the attached form and return to the Public Works Department at 512 Sandwich St South. Under Section 65(2) of the Drainage Act, if the agreement is approved by Council by resolution, no engineer will need to be instructed to complete a re-apportionment.

Should you have any questions or require further clarification, please feel free to contact myself at (519) 736-3664 ext 2318.

Sincerely,

Sam Paglia

Sam Paglia, P.Eng.

Drainage Superintendent and Engineering Coordinator

Website: www.amherstburg.ca
271 SANDWICH ST. SOUTH, AMHERSTBURG, ONTARIO N9V 2A5
Phone: (519) 736-0012 Fax: (519) 736-5403 TTY: (519) 736-9860

Administration has created the following new breakdown for the affected properties:

1. Ouellette Drain East

Ouellette Drain East - Existing Assessment – Current By-Law 2016-078							
Conc.	Lot	Affected Area (HA)	Roll No.	Owner	Benefit Assessment	Outlet Assessment	TOTAL
1	PT 19	1.68		Pacitti Cont.	\$ 100.00	\$ 399.00	\$ 499.00

Please note that a portion of the original lot assessed into the drain was merged with 1000 Conc. 2N and removed from this apportionment area.

Ouellette Drain East – Reapportionment – Application for Consent B/32/22							
Conc.	Lot	Affected Area (HA)	Roll No.	Owner	Benefit Assessment	Outlet Assessment	TOTAL
1		0.97		Pacitti Cont.	\$ 67.00	\$ 267.00	\$ 334.00
1		0.48		NA	\$ 33.00	\$ 132.00	\$ 165.00

2. Long Marsh Drain

The Ouellette Drain East Drain uses the Long Marsh Drain as its outlet since the report of 2016. Previously, since the Long Marsh drain bylaw and report have not been updated since 1993, there is no way to apportion these lands.

For the sake of a drainage assessments in the future on the Long Marsh Drain, the drainage assessment to these lands for any work completed downstream on the Long Marsh Drain is apportioned 67% to the retained lands and 33% to the severed lands. This apportionment will be in effect until such time as an engineer is appointed on the Long Marsh Drain to update the By-Law.

Long Marsh Drain – Reapportionment – Application for Consent B/32/22					
Conc.	Lot	Affected Area (HA)	Roll No.	Owner	TOTAL
1		0.97		Pacitti Cont.	67%
1		0.48		NA	33%

CORPORATION OF THE TOWN OF AMHERSTBURG

**Agreement between Property Owners for Drain Apportionment
due to Land Severance or Sale**

OUELLETTE DRAIN EAST

Agreement between Pacitti Contracting Company Inc. and the Town of Amherstburg for cost apportionment due to severance or sale of land in the **Ouellette Drain East** drainage watershed or system.

<u>Ouellette Drain East – Reapportionment – Application for Consent B/32/22</u>							
Conc.	Lot	Affected Area (HA)	Roll No.	Owner	Benefit Assessment	Outlet Assessment	TOTAL
1		0.97		Pacitti Cont.	\$ 67.00	\$ 267.00	\$ 334.00
1		0.48		NA	\$ 33.00	\$ 132.00	\$ 165.00

I, (we) agree to the drainage apportionment as listed below that the Town of Amherstburg has calculated for our property, and hereby petition the Council of the Town of Amherstburg to fix these new apportionments by resolution.

<u>ALDO PACITTI</u>	<u>JAN 25/25</u>	<u>Aldo Pacitti</u>
Retained Property Owner 1 (printed)	Date	Retained Property Owner 1 (signature)
<u>ALDO PACITTI</u>	<u>JAN 25/25</u>	<u>Aldo Pacitti</u>
Severed Property Owner 1 (printed)	Date	Severed Property Owner 1 (signature)

CORPORATION OF THE TOWN OF AMHERSTBURG

**Agreement between Property Owners for Drain Apportionment
due to Land Severance or Sale**

LONG MARSH DRAIN

Agreement between Pacitti Contracting Company Inc. and the Town of Amherstburg for cost apportionment due to severance or sale of land in the **Long Marsh Drain** drainage watershed or system.

Long Marsh Drain – Reapportionment – Application for Consent B/32/22					
Conc.	Lot	Affected Area (HA)	Roll No.	Owner	TOTAL
1		0.97		Pacitti Cont.	67%
1		0.48		NA	33%

I, (we) agree to the drainage apportionment as listed below that the Town of Amherstburg has calculated for our property, and hereby petition the Council of the Town of Amherstburg to fix these new apportionments by resolution.

ALDO PACITTI
Retained Property Owner 1 (printed)

JAN 25/25
Date

Aldo Pacitti
Retained Property Owner 1 (signature)

ALDO PACITTI
Severed Property Owner 1 (printed)

JAN 25/25
Date

Aldo Pacitti
Severed Property Owner 1 (signature)



The Corporation of The Town of Amherstburg

January 9, 2025

RE: Section 65 Drainage Apportionment – Consent B/11/24

Dear Landownerr:

This letter is to advise you of changes to the drainage assessment for your property for the parcel located at [REDACTED] and [REDACTED] Alma, both legally described as CON 4 S PT LOT 1 with Roll numbers [REDACTED] and [REDACTED] respectively. This is in relation to the Application for Consent B/11/24, which proposes to sever a 0.248 hectare of land from [REDACTED] to merge with [REDACTED]. The merged parcel area shall be 0.564 hectares and shall be considered residential land for this agreement only and applied to the respective schedules as they appear in the bylaw.

The re-apportionment of the drainage assessments for the lands described above proposed under this letter is in accordance with Section 65(2) of the "Drainage Act, R.S.O. 1990, Chapter D.17, as amended in 2010." It is the responsibility of every landowner in Ontario to not only capture, but convey the stormwater that their lands receive to a sufficient outlet. Typically, this is accomplished through drainage infrastructure. These apportionments are only in relation to the Municipal Drains governed by the Act, and are only to be used until such time as Council appoints an Engineer to update the current bylaw for the affected lands.

Administration for the Town of Amherstburg has reviewed all municipal drain reports under bylaw in order to complete the re-apportionments of drainage assessments for the subject lands. Said lands are located within the following watersheds, and are assessed into the following municipal drains constructed by bylaw under the Drainage Act:

1. **Bridges over the Cook Drain** – Report by N.J. Peralta, P.Eng., dated November 20, 2020, by-law 2021-002.
2. **Long Marsh Drain** – Report by N.J. Peralta, P.Eng., dated January 27, 1993, by-law 3202.

If you are in agreement with the new breakdown of your property listed in the attached chart(s), please have all registered owners of your property sign the attached form and return to the Public Works Department at 512 Sandwich St South. Under Section 65(2) of the Drainage Act, if the agreement is approved by Council by resolution, no engineer will need to be instructed to complete a re-apportionment.

Should you have any questions or require further clarification, please feel free to contact myself at (519) 736-3664 ext 2318.

Sincerely,

Sam Paglia

Sam Paglia, P.Eng.

Drainage Superintendent and Engineering Coordinator

Attach.

Website: www.amherstburg.ca

271 SANDWICH ST. SOUTH, AMHERSTBURG, ONTARIO N9V 2A5

Phone: (519) 736-0012 Fax: (519) 736-5403 TTY: (519)736-9860

Administration has created the following new breakdown for the affected properties:

1. Bridges over the Cook Drain.

<u>Bridges over the Cook Drain</u>							
Existing Assessment – N.J. Peralta, P.Eng., dated November 5, 2020 - By-Law 2021-002							
Conc.	Lot	Affected Area (HA)	Roll No.	Owner	Benefit Assessment	Outlet Assessment	TOTAL
4	1	0.316	██████	Leonard and Deborah Maillo	\$ 0.00	\$ 127.00	\$ 127.00
4	1	13.845	██████	Mailloux Farms	\$ 0.00	\$ 1,897.00	\$ 1,897.00
						\$ 2,024.00	\$ 2,024.00

Reapportionment – Application for Consent B/11/24 - <u>Bridges over the Cook Drain</u>							
Conc.	Lot	Affected Area (HA)	Roll No.	Owner	Benefit Assessment	Outlet Assessment	TOTAL
4	1	0.564	██████	Leonard and Deborah Maillo	\$ 0.00	\$ 197.00	\$ 127.00
4	1	13.597	██████	Mailloux Farms	\$ 0.00	\$ 1,827.00	\$ 1,897.00
						\$ 2,024.00	\$ 2,024.00

2. Long Marsh Drain

<u>Long Marsh Drain –</u>							
Existing Assessment – N.J. Peralta, dated January 27, 1993 – By-Law 3032							
Conc.	Lot	Affected Area (HA)	Roll No.	Owner	Benefit Assessment	Outlet Assessment	TOTAL
4	1	0.316	██████	Leonard and Deborah Maillo	\$ 0.00	\$ 50.00	\$ 50.00
4	1	13.41	██████	Mailloux Farms	\$ 0.00	\$ 1,814.00	\$ 1,814.00
						\$ 1,864.00	\$ 1,864.00

Reapportionment – N.J. Peralta, dated January 27, 1993 – By-Law 3032 – Long Marsh Drain							
Conc.	Lot	Affected Area (HA)	Roll No.	Owner	Benefit Assessment	Outlet Assessment	TOTAL
4	1	0.564	██████	Leonard and Deborah Maillo	\$ 0.00	\$ 90.00	\$ 90.00
4	1	13.658	██████	Mailloux Farms	\$ 0.00	\$ 1,774.00	\$ 1,774.00
						\$ 1,864.00	\$ 1,864.00

CORPORATION OF THE TOWN OF AMHERSTBURG

Agreement between Property Owners for Drain Apportionment due to Land Severance or Sale

Cook Drain

Agreement between *Leonard and Debra Mailloux* and *Mailloux Farms Inc.* for cost apportionment due to severance or sale of land in the **Cook Drain** drainage watershed or system.

Reapportionment – Application for Consent B/11/24 - <u>Bridges over the Cook Drain</u>							
Conc.	Lot	Affected Area (HA)	Roll No.	Owner	Benefit Assessment	Outlet Assessment	TOTAL
4	1	0.564	██████	Leonard and Deborah Maillou	\$ 0.00	\$ 197.00	\$ 127.00
4	1	13.597	██████	Mailloux Farms	\$ 0.00	\$ 1,827.00	\$ 1,897.00
						\$ 2,024.00	\$ 2,024.00

I, (we) agree to the drainage apportionment as listed below that the Town of Amherstburg has calculated for our property, and hereby petition the Council of the Town of Amherstburg to fix these new apportionments by resolution.


Mailloux Farms Ltd.
Retained Property Owner 1 (printed)

Date


Retained Property Owner 1 (signature)

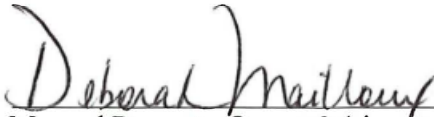
Leonard Mailloux
Merged Property Owner 1 (printed)

Date


Merged Property Owner 1 (signature)

Deborah Mailloux
Merged Property Owner 2 (printed)

Date


Merged Property Owner 2 (signature)

CORPORATION OF THE TOWN OF AMHERSTBURG

Agreement between Property Owners for Drain Apportionment due to Land Severance or Sale

Long Marsh Drain

Agreement between *Leonard and Debra Mailloux* and *Mailloux Farms Inc.* for cost apportionment due to severance or sale of land in the **Long Marsh Drain** drainage watershed or system.

I, (we) agree to the drainage apportionment as listed below that the Town of Amherstburg has calculated for our property, and hereby petition the Council of the Town of Amherstburg to fix these new apportionments by resolution.

Reapportionment – N.J. Peralta, dated January 27, 1993 – By-Law 3032 – Long Marsh Drain							
Conc.	Lot	Affected Area (HA)	Roll No.	Owner	Benefit Assessment	Outlet Assessment	TOTAL
4	1	0.564		Leonard and Deborah Mailloux	\$ 0.00	\$ 90.00	\$ 90.00
4	1	13.658		Mailloux Farms	\$ 0.00	\$ 1,774.00	\$ 1,774.00
						\$ 1,864.00	\$ 1,864.00

Mailloux Farms Ltd.
Retained Property Owner 1 (printed)

Date

Josh Mailloux
Retained Property Owner 1 (signature)

Leonard Mailloux
Merged Property Owner 1 (printed)

Date

Leonard Mailloux
Merged Property Owner 1 (signature)

Deborah Mailloux
Merged Property Owner 2 (printed)

Date

Deborah Mailloux
Merged Property Owner 2 (signature)



The Corporation of The Town of Amherstburg

January 10, 2025

RE: Section 65 Drainage Apportionment – Consent B/15/24, B/16/24 and B17/24

Dear Landownerr:

This letter is to advise you of changes to the drainage assessment for your property for the parcel located at [REDACTED] Simcoe legally referenced as PLAN 12m-418 LOT 2 with Roll Number [REDACTED] and in relation to the application for consent decision numbers. B/15, 16 & 17/24 all associated with the original parcel above. The decision permits the severance of three (3) lots with area of 0.039, 0.039 & 0.047 Hectares respectively with frontage on Simcoe and a retained parcel with area 0.150 hectares and frontage on Martin Cres. The severed and retained parcels shall be considered residential for this agreement only, and for the purpose of apportioning the artificial water expected to flow from those lands.

The re-apportionment of the drainage assessments for the lands described above proposed under this letter is in accordance with Section 65(2) of the "Drainage Act, R.S.O. 1990, Chapter D.17, as amended in 2010." It is the responsibility of every landowner in Ontario to not only capture, but convey the stormwater that their lands receive to a sufficient outlet. Typically, this is accomplished through drainage infrastructure. These apportionments are only in relation to the Municipal Drains governed by the Drainage Act, and are only to be used until such time as Council appoints an Engineer to update the current bylaw for the affected lands.

Administration for the Town of Amherstburg has reviewed all municipal drain reports under bylaw in order to complete the re-apportionments of drainage assessments for the subject lands. Said lands are located within the following watersheds, and are assessed into the following municipal drains constructed by bylaw under the Drainage Act:

1. Pike Road Drain and Auxiliary Outlet –Gerard Rood, P.Eng., dated January 26, 2022, by-law 2022-031

2. 2nd Concession Rd Drain – Gerard Rood, P.Eng., dated February 2, 2022, by-law 2022-030.

If you are in agreement with the new breakdown of your property listed in the attached chart(s), please have all registered owners of your property sign the attached form and return to the Public Works Department at 512 Sandwich St South. Under Section 65(2) of the Drainage Act, if the agreement is approved by Council by resolution, no engineer will need to be instructed to complete a re-apportionment.

Should you have any questions or require further clarification, please feel free to contact myself at (519) 736-3664 ext 2318.

Sincerely,

Sam Paglia, P.Eng.
Drainage Superintendent and Engineering Coordinator

Website: www.amherstburg.ca
271 SANDWICH ST. SOUTH, AMHERSTBURG, ONTARIO N9V 2A5
Phone: (519) 736-0012 Fax: (519) 736-5403 TTY: (519)736-9860

Administration has created the following new breakdown for the affected properties:

1. Pike Road Drain and Auxiliary Outlet

<u>Pike Road Drain and Auxiliary Outlet Drain</u>							
Existing Assessment – Rood, P.Eng., By-law 2022-031							
Conc.	Lot	Affected Area (HA)	Roll No.	Owner	Benefit Assessment	Outlet Assessment	TOTAL
2	PT 23	0.269	██████	Julie Bonenfant	\$ 3,974	\$ 4,663	\$ 8,637

<u>Pike Road Drain and Auxiliary Outlet Drain</u>							
Reapportionment – Application for Consent Decision B 15, 16 & 17/24							
Conc.	Lot	Affected Area (HA)	Roll No.	Owner	Benefit Assessment	Outlet Assessment	TOTAL
2	Retained PT 23	0.144	██████	Renaud Brendan Daniel Crawford Deanna Marie	\$ 2,127	\$ 2,496	\$ 4,623
2	Severed Lot 1	0.039	██	N/A	\$ 576	\$ 676	\$ 1,252
2	Severed Lot 2	0.039	██	N/A	\$ 576	\$ 676	\$ 1,252
2	Severed Lot 3	0.047	██	N/A	\$ 694	\$ 815	\$ 1,509
		0.269			\$ 3,974	\$ 4,663	\$ 8,637

2. 2nd Concession Road Drain South

<u>2nd Concession Road Drain South</u>							
Existing Assessment – Rood, P.Eng., By-law 2022-030							
Conc.	Lot	Affected Area (HA)	Roll No.	Owner	Benefit Assessment	Outlet Assessment	TOTAL
2	PT 23	0.269	██████	Julie Bonenfant	\$ 0	\$ 60	\$ 60

<u>2nd Concession Road Drain South</u>							
Reapportionment – Application for Consent Decision B 15, 16 & 17/24							
Conc.	Lot	Affected Area (HA)	Roll No.	Owner	Benefit Assessment	Outlet Assessment	TOTAL
2	Retained PT 23	0.144	██████	Renaud Brendan Daniel Crawford Deanna Marie	\$ 0	\$ 32	\$ 32
2	Severed Lot 1	0.039	██	N/A	\$ 0	\$ 9	\$ 9
2	Severed Lot 2	0.039	██	N/A	\$ 0	\$ 9	\$ 9
2	Severed Lot 3	0.047	██	N/A	\$ 0	\$ 10	\$ 10
		0.269			\$ 0	\$ 60	\$ 60

CORPORATION OF THE TOWN OF AMHERSTBURG

Agreement between Property Owners for Drain Apportionment due to Land Severance or Sale

Agreement between property owners for cost drainage apportionment due to severance or sale of land in the **Pike Road Drain and Auxiliary Outlet Drain** drainage watershed or system.

I, (we) agree to the drainage apportionment as listed below that the Town of Amherstburg has calculated for our property, and hereby petition the Council of the Town of Amherstburg to fix these new apportionments by resolution to any past, present or future drain assessment.

Pike Road Drain and Auxiliary Outlet Drain							
Reapportionment – Application for Consent Decision B 15, 16 & 17/24							
Conc.	Lot	Affected Area (HA)	Roll No.	Owner	Benefit Assessment	Outlet Assessment	TOTAL
2	Retained PT 23	0.144		Renaud Brendan Daniel Crawford Deanna Marie	\$ 2,127	\$ 2,496	\$ 4,623
2	Severed Lot 1	0.039		N/A	\$ 576	\$ 676	\$ 1,252
2	Severed Lot 2	0.039		N/A	\$ 576	\$ 676	\$ 1,252
2	Severed Lot 3	0.047		N/A	\$ 694	\$ 815	\$ 1,509
		0.269			\$ 3,974	\$ 4,663	\$ 8,637

Renaud Brendan Daniel
Property Owner 1 (printed)

Jan 30th 2025
Date

Brendan Renaud
Property Owner 1 (signature)

Crawford Deanna Marie
Property Owner 2 (printed)

Jan 30th 2025
Date

Deanna Marie
Property Owner 2 (signature)

CORPORATION OF THE TOWN OF AMHERSTBURG

Agreement between Property Owners for Drain Apportionment due to Land Severance or Sale

Agreement between property owners for cost drainage apportionment due to severance or sale of land in the **2nd Concession Road Drain South** drainage watershed or system.

I, (we) agree to the drainage apportionment as listed below that the Town of Amherstburg has calculated for our property, and hereby petition the Council of the Town of Amherstburg to fix these new apportionments by resolution.

<u>2nd Concession Road Drain South</u>							
Reapportionment – Application for Consent Decision B 15, 16 & 17/24							
Conc.	Lot	Affected Area (HA)	Roll No.	Owner	Benefit Assessment	Outlet Assessment	TOTAL
2	Retained PT 23	0.144	██████	Renaud Brendan Daniel Crawford Deanna Marie	\$ 0	\$ 32	\$ 32
2	Severed Lot 1	0.039	███	N/A	\$ 0	\$ 9	\$ 9
2	Severed Lot 2	0.039	███	N/A	\$ 0	\$ 9	\$ 9
2	Severed Lot 3	0.047	███	N/A	\$ 0	\$ 10	\$ 10
		0.269			\$ 0	\$ 60	\$ 60

Renaud Brendan Daniel
Property Owner 1 (printed)

Jan 30th 2025
Date

Brandon Renaud
Property Owner 1 (signature)

Crawford Deanna Marie
Property Owner 2 (printed)

Jan 30th 2025
Date

Deanna Crawford
Property Owner 2 (signature)



The Corporation of The Town of Amherstburg

February 3, 2025

RE: Section 65 Drainage Apportionment – Consent B/22/24

Dear Landownerr:

This letter is to advise you of changes to the drainage assessment for your three (3) properties, legally described as PLAN 1103 LOT 51, PLAN 1103 LOT 50 and PLAN 1103 LOT 49. This is in relation to Application for Consent B/22/24, which proposes to sever a 0.0864 hectare parcel of land by merging land from Roll No. [REDACTED] to Lot 51 creating a new building lot, and a portion to the existing Lot 49 at [REDACTED] Willow Beach Road. The retained parcel area shall be 0.0808 hectare and shall be considered residential land for this agreement only.

The re-apportionment of the drainage assessments for the lands described above proposed under this letter is in accordance with Section 65(2) of the "Drainage Act, R.S.O. 1990, Chapter D.17, as amended in 2010." It is the responsibility of every landowner in Ontario to not only capture, but convey the stormwater that their lands receive to a sufficient outlet. Typically, this is accomplished through drainage infrastructure. These apportionments are only in relation to the Municipal Drains governed by the Act, and are only to be used until such time as Council appoints an Engineer to update the current bylaw for the affected lands.

Administration for the Town of Amherstburg has reviewed all municipal drain reports under bylaw in order to complete the re-apportionments of drainage assessments for the subject lands. Said lands are located within the following watersheds, and are assessed into the following municipal drains constructed by bylaw under the Drainage Act:

1. **Willow Beach Drain and Pump** – Report by Todgham and Case Associates Inc., dated November 2, 2005 and appended to Bylaw number 2006-34

If you are in agreement with the new breakdown of your property listed in the attached chart(s), please have all registered owners of your property sign the agreement and return to the Infrastructure Services at 512 Sandwich St South. Under Section 65(2) of the Drainage Act, if the agreement is approved at Council by resolution, no engineer will need to be instructed to complete a re-apportionment.

Should you have any questions or require further clarification, please feel free to contact myself at (519) 736-3664 ext 2318.

Sincerely,

Sam Paglia

Sam Paglia, P.Eng.
Drainage Superintendent and Engineering Coordinator

Attach.

Administration has created the following new breakdown for the affected properties:

1. Willow Beach Drain and Pump

Existing Assessment – N.J. Peralta, P.Eng., dated January 27, 1993, by-law 2917							
Conc.	Lot	Affected Area (HA)	Roll No.	Owner	Benefit Assessment	Outlet Assessment	TOTAL
	49	.06	██████	Grant and Patricia Pottle	\$ 0.00	\$ 15.00	\$ 15.00
	50	.06	██████	Robert Arthur	\$ 0.00	\$ 15.00	\$ 15.00
	51	.06	██████	Robert Arthur	\$ 0.00	\$ 15.00	\$ 15.00
					\$ 0.00	\$ 45.00	\$ 45.00

<u>Willow Beach Drain and Appurtenances – Schedule A-2</u>							
Reapportionment – Application for Consent B/22/24							
Conc.	Lot	Affected Area (HA)	Roll No.	Owner	Benefit Assessment	Outlet Assessment	TOTAL
	49	.081	██████	Gerald Goodchild	\$ 0.00	\$ 22.50	\$ 22.50
	51	.087	██████	Gerald Goodchild	\$ 0.00	\$ 22.50	\$ 22.50
					\$ 0.00	\$ 45.00	\$ 45.00

CORPORATION OF THE TOWN OF AMHERSTBURG

**Agreement between Property Owners for Drain Apportionment
due to Land Severance or Sale**

LONG MARSH DRAIN

Agreement between *Gerald Goodchild* and the Town of Amherstburg for cost apportionment due to severance or sale of land in the *Willow Beach Drain and Pump* drainage watershed or system.

<u>Willow Beach Drain and Appurtenances – Schedule A-2</u>							
Reapportionment – Application for Consent B/22/24							
Conc.	Lot	Affected Area (HA)	Roll No.	Owner	Benefit Assessment	Outlet Assessment	TOTAL
	49	.081		Gerald Goodchild	\$ 0.00	\$ 22.50	\$ 25.50
	51	.087		Gerald Goodchild	\$ 0.00	\$ 22.50	\$ 25.50
					\$ 0.00	\$ 45.00	\$ 45.00

I, (we) agree to the drainage apportionment as listed below that the Town of Amherstburg has calculated for our property, and hereby petition the Council of the Town of Amherstburg to fix these new apportionments by resolution.

GERALD GOODCHILD
Retained Property Owner 1 (printed)

Feb 3/25
Date

Gerald Goodchild
Retained Property Owner 1 (signature)

GERALD GOODCHILD
Severed Property Owner 1 (printed)

Feb 3/25
Date

Gerald Goodchild
Severed Property Owner 1 (signature)