

THE CORPORATION OF THE TOWN OF AMHERSTBURG

BY-LAW NO. 2019 – 095

**By-law to provide for the John Parks No. 1 Drain Improvements based on the
Drainage Report by R. Dobbin Engineering Inc.**

WHEREAS a request for repair and improvement of the on the John Parks No. 1 Drain was received under section 78 of the Drainage Act;

WHEREAS Council of the Corporation of the Town of Amherstburg felt it necessary to appoint an engineer for the purpose of preparation of an engineer's report for the John Parks No.1 Drain Improvements under section 78 of the Drainage Act;

WHEREAS Council of the Corporation of the Town of Amherstburg has authorized Mike Gerrits, P. Eng., to prepare a report and said engineer's report dated October 18, 2019, can be referenced as Schedule A, as attached hereto;

WHEREAS \$145,260.00 is the amount to be contributed by the Town of Amherstburg for the drainage works;

AND WHEREAS the report was considered by the Amherstburg Drainage Board at the meeting held on Tuesday, November 5th, 2019.

AND WHEREAS the schedule of assessment as presented by R. Dobbin Engineering Inc. was further revised for the Court of Revision held on December 2, 2019, and can be referenced as Schedule B, as attached hereto;

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

1. AUTHORIZATION

The attached 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 \$145,260.00 being the amount necessary for the improvements of the drainage works.

This project being the John Parks No.1 Drain Improvements.

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) 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 as shown in the schedule 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) For paying the amount \$1,668.00 being the amount assessed upon the lands and roads belonging to or controlled by the municipality a special rate sufficient to pay the amount assessed plus interest thereon shall be levied upon the whole rateable property in the Town of Amherstburg in each year for 5 years after the passing of this by-law to be collected in the same manner and at the same time as other taxes collected.
- (3) All assessments of \$1000.00 or less are payable in the first year in which the assessments are imposed.

5. SCHEDULE OF ASSESSMENTS OF LANDS AND ROADS

Property Description				Estimated Assessment as per Report	Estimated Grants 33 1/3%	Annual Debenture Payment Amount
Lot or Part Lot No.	Concession	Geographic Township	Parcel Roll No.			
Pt. Lot 11	1	Malden	600-07201	\$3,590.00	\$0.00	808.11
Pt. Lot 11	1	Malden	600-07200	\$50,155.00	\$0.00	11,289.92
Pt. Lot 11	1	Malden	600-07100	\$16,047.00	\$0.00	3,612.19
Pt. Lot 11	1	Malden	600-06400	\$1,269.00	\$0.00	285.65
Pt. Lot 9	1	Malden	600-04200	\$1,275.00	\$0.00	287.00
Pt. Lot 11	1	Malden	600-06300	\$3,413.00	\$1,137.67	512.18
Pt. Lot 10&11	1	Malden	600-05600	\$3,113.00	\$1,037.00	467.31
Pt. Lot 10	1	Malden	600-04610	\$2,828.00	\$942.67	424.39
Pt. Lot 9	1	Malden	600-04000	\$5,500.00	\$1,833.33	825.37
Pt. Lot 8	1	Malden	600-02900	\$6,551.00	\$2,183.67	983.09
Pt. Lot 7	1	Malden	600-02300	\$7,827.00	\$2,609.00	1174.57
Total				\$101,568.00	\$9,743.34	\$20,669.78

Read a first and second time and provisionally adopted this 12th day of November, 2019.


MAYOR – ALDO DICARLO


CLERK – PAULA PARKER

Read a third time and finally passed this 10 day of May, ~~2019~~²⁰²¹


MAYOR – ALDO DICARLO


CLERK – PAULA PARKER

October 18, 2019

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

Gentlemen and Mesdames:

Re: John Parks No. 1 Drain Improvements

As instructed, we have undertaken an examination of the John Parks No. 1 Drain on part of Lot 11, Concession 1 with regards to extending the drain to the Detroit River, replacing an existing lawn enclosure across two properties and incorporating a lawn enclosure across a third property which was completed outside of the Drainage Act. The lawn enclosures are located on the properties with the Area Roll Numbers (ARN) ending in 600-07100, 600-07200 and 600-07201 in the Town of Amherstburg (former geographic Township of Malden).

Authorization under the Drainage Act

The Town of Amherstburg received concerns relating to the deterioration and safety of a failing section of the John Parks No. 1 Drain. The Town of Amherstburg appointed an Engineer under Section 78 of the Drainage Act to prepare a report to address the failure.

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

Existing Drainage

The drain outlets to the Detroit River via the Country Road 20 (Front Road South) centreline culvert. The drain extends 20m to the east and then 8m in a northerly direction to the north property limit of the 2627884 Ontario Inc. property (ARN 600-07201) as a 900mm dia. corrugated steel pipe drain. The drain extends 20m in a northerly direction to the north property limit of the F. & G. Storino property (ARN 600-07200) as a 900mm dia. corrugated steel pipe drain. The drain then extends 40m in an easterly direction along the north property limit of the F. & G. Storino property (ARN 600-07200) as a 900mm dia. corrugated steel pipe drain. The drain then extends 44m in a north easterly direction across the F. & G. Storino property (ARN 600-07100) as a 1,030mmX740mm corrugated steel pipe arch (CSPA). The drain then extends in a northerly direction for 1,187m as an open channel where it terminates in the centre of Lot 7, Concession 1.

In 1999, L. Zarlenga of Bruce D. Crozier Engineering Inc. prepared a report that included maintenance recommendations for the existing drain. The report also commented on extending the existing enclosure across the F. & G. Storino property (ARN 600-07100) between Station 0+088 and Station 0+132. The report stated that extending the enclosure across the F. & G. Storino property (ARN 600-07100) between Station 0+088 and Station 0+132 would need to be completed under a new Engineers Report under the Drainage Act. It appears the drain enclosure was extended across the F. & G. Storino property (ARN 600-07100) privately and was not completed under the Drainage Act. A by-law was not adopted by Council for the private enclosure of an existing municipal drain.

Drain Classification

The open portion of the John Parks Drain No. 1 is currently classified as a class "E" drain from the drain outlet to the northerly limit of Lot 11, Concession 1. The remainder of the drain is classified as a class "F" drain. These classifications are according to the Ontario Ministry of Agriculture, Food and Rural Affairs Agricultural Information Atlas.

The report and the DFO's Request for Review Form were submitted on July 9, 2019 to ensure compliance. A letter of advice was issued from the DFO on October 7, 2019. All DFO requirements have been included in this report.

The Essex Region Conservation Authority (ERCA) was contacted via an email dated June 6, 2018 to inform them of the project. A report was mailed to the ERCA on July 9, 2019. Correspondence from ERCA was received on September 4, 2019. All ERCA requirements have been included in this report.

Onsite Meeting

An onsite meeting was held on June 14, 2018 to discuss the project. The following were in attendance.

Shane McVitty, Town of Amherstburg Drainage Superintendent
 Michael Gerrits, R. Dobbin Engineering Inc.
 Josh Warner, R. Dobbin Engineering Inc.

Bob Sutts, Landowner	Del Oxford, Landowner
Frank Storino, Landowner	Gina Storino, Landowner
John Gibb, Landowner	Gene Reaume, Landowner
Garry Balogh, Landowner	Pierretta Puzzango, Landowner
Ross Scott, Landowner	Charlene Scott, Landowner
Steve Bernyk, Landowner	Dave McWhinnie, Landowner
James Hodges, Landowner	Julie Kotsis-Wilder, Landowner
Bill Wilder, Landowner	

The following was discussed at the site meeting:

- General discussion of the Drainage Act and Landowners rights under the Drainage Act.
- General discussion of the request for a Section 78 report under the Drainage Act.
- Landowners were informed that the portion of the drain that was installed under the 1976 report is 43 years old and may be coming close to the end of its service life. Without exposing the pipe and completing an inspection it is unclear whether the project will be an isolated repair or a full replacement of the closed drain.
- Landowners were informed that the enclosed portion of the drain which was completed outside of the Drainage Act needs to be incorporated into the John Parks Drain No. 1. The Landowner who paid for the enclosure that was completed outside of the Drainage Act clarified that the enclosure was engineered.
- Landowners were informed that the drains capacity to convey water to the Detroit River is governed by the existing outlet and water levels of the Detroit River. The water levels on the Detroit River are high and causes water to back up in the drain.
- The current drain report plan does not include a watershed plan, the new report will include one. A number of Landowners requested the watershed boundary be verified on their lands. The Landowners were informed that R. Dobbin Engineering Inc. will complete a topographic survey and will address any Landowners request for boundary verification.

Discussion

The water level in the drain is governed by the Detroit River water levels. R. Dobbin Engineering Inc. was unable to video the drain due to the high water level. Without a video it is difficult to determine the condition of the drain particularly the bottom 1/3 of the corrugated steel pipe. Culverts that have fluctuating water levels have increased dissolved gases which accelerate corrosion within the structure.

The existing enclosed drain is 43 years old. R. Dobbin Engineering Inc. noted one failed section at the June 14, 2018 site meeting. R. Dobbin Engineering Inc. noted a second failure section immediately up gradient of the initial failure on July 10, 2019.

The Ministry of Transportation of Ontario's gravity pipe manual estimates the service life of a 16 gauge corrugated steel galvanized culvert in this area to be between 25 and 35 years. Armtec estimates the service life of galvanized culverts to be 50 years under ideal conditions. The Steel Drainage and Highway Construction Products handbook states a galvanized culvert should last a minimum of 50 years depending on the soils and water.

Under this report R. Dobbin Engineering Inc. recommends the culvert be replaced based on the age of the culvert, the estimated life spans of galvanized culverts, the amount of standing water within the culvert and that the existing pipe has failed in two locations and is expected to fail in other locations on a regular basis. Maintaining the failing sections of the enclosure will be difficult since it is expected that the remainder of the enclosure is in similar condition and there will be no end to the repairs.

There has been significant correspondence relating to lawn enclosures on this drain, specifically who is responsible for the cost of a lawn enclosure. Brief excerpts from the correspondence are listed below:

Existing Reports

- C. Armstrong prepared a report in 1948, the report included incorporating an existing ditch complete with improvements into a drain report.
- W. Settrington prepared a report in 1976 which included improvements to both an open and closed channel. It appears W. Settrington assessed all costs associated with the existing enclosure between Station 0+020 and Station 0+088 to the landowner benefitting from the enclosure.
- N. Peralta prepared a report in 1985 to update maintenance schedules. The report appears to be based on maintaining the drain without consideration for any bridge, culvert or enclosure replacements.

Correspondence with the Storino's (ARN ending in 600-07100)

- June 19, 1997 – F. Storino wrote a letter to the Township of Malden expressing concern over the condition of the existing open drain on the Storino property between Station 0+088 and Station 0+122.
- June 26, 1997 – the Township of Malden retained L. Zarlenga to investigate the complaint.
- August 27, 1997 – L. Zarlenga prepared a report addressing his investigation. The report concluded that enclosing the drain on the Storino Property between Station 0+088 and 0+122 (immediately upstream of the existing enclosure) would be difficult due to the amount of cover. The report also stated that the outlet is governed by the Detroit River and in order to prevent standing water a pump system would be required. The report recommended the open channel portion of the drain between Station 0+088 and 0+335 be maintained as per the current Drain Report.
- May 20, 1999 – G. Storino wrote a letter to the Town of Amherstburg reiterating the complaints addressed in the June 19, 1997 letter prepared by F. Storino.
- June 1, 1999 – G. Storino requested maintenance be completed on the drain between Station 0+088 and 0+122.
- June 29, 1999 – The Town of Amherstburg retained L. Zarlenga to investigate the request for maintenance between Station 0+088 and 0+122.
- November 9, 1999 – L. Zarlenga prepared a report which stated the existing pipe between Station 0+020 and Station 0+088 was installed in 1976 at the expense of the landowner at that time. The report identified that water was ponding within the pipe up to approximately 6" in depth. The report identified that the channel upstream of the closed drain was vegetated. The report recommended drain maintenance be completed on the open channel and the closed pipe be flushed. L. Zarlenga informed the Storino's if they wished to proceed with an enclosure a report would be required under the Drainage Act. L. Zarlenga did not prepare a report under the provisions of the Drainage Act to address the proposed drain enclosure.
- November 10, 1999– L. Zarlenga prepared a report to address the Storino's request for an enclosure across their property between Station 0+088 and Station 0+122. The report stated that the first time a bridge or enclosure occurs on a Municipal Drain it is at the entire expense of the Landowner requesting the improvement and that a new report would be required under the Drainage Act. The Storino's were given an estimate that included a cost for a new drainage report. L. Zarlenga did not prepare a report under the provisions of the Drainage Act to address the drain enclosure.
- January 18, 2000 – The Town of Amherstburg sent the Storino's a letter requesting confirmation on whether they want to proceed with the maintenance or with an enclosure.

- January 25, 2000 – The Town of Amherstburg received a letter from the Storino's requesting maintenance be completed on the drain. The Storino's did not feel paying for the entire cost of a lawn enclosure was fair and therefore only requested maintenance be completed on the drain.
- April 6, 2000 – The Town of Amherstburg's Drainage Superintendent, B. Crawford, contacted L. Zarlenga to inform him the Storino's intended to enclose the drain between Station 0+088 and Station 0+120 privately without the benefit of a drainage report.
- April 7, 2000 – L. Zarlenga prepared a letter to the Town of Amherstburg informing the Town that the pipe enclosure between Station 0+088 and Station 0+120 would be considered a first time installation and would be performed totally at the owners costs. Maintenance and liabilities and costs associated with a private structure within the Municipal Drain are the responsibility of the structure owner. The Town was informed that future maintenance of the enclosure would be at the cost of the Storino's even if it was installed as part of a Drainage Report. L. Zarlenga informed the Town of Amherstburg that the drainage enclosure would require approval of Town Council.
- May 5, 2000 – The Town of Amherstburg sent a memo to B. Crawford advising that the construction of the enclosure across the Storino property was approved by Council.

This above correspondence demonstrates the Landowners were aware of the consequences of enclosing a drain. The enclosure between Station 0+088 and Station 0+122 is currently not part of the drain and will be incorporated into the drain under this report. The correspondence also demonstrates that the Landowners have been informed that the majority of the costs associated with the existing enclosure on their property is considered a special benefit under the Drainage Act.

Recommendations

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

1. Remove and replace the existing headwall at the drain outlet at Station 0+000;
2. Remove and replace the closed drain between Station 0+020 and Station +088 that was installed in 1976 under the W. Settrington report complete with reconnecting the existing catch basin, restoration and the installation of new catch basins;
3. Update Maintenance Schedule; and
4. It is proposed to incorporate the 1,030mm x 740mm corrugated steel pipe arch on the F. & G. Storino property (ARN 600-07100) between Station 0+088 and Station 0+132 under this report. Once incorporated the existing enclosure will then become part of the drain.

Design

The proposed replacement between the outlet to the Detroit River (Station 0+000) and Station 0+132 shall be designed to accommodate a minimum 1 in 2 year storm event complete with maintenance provisions. The proposed drain will provide a better level of service for Landowners within the watershed, however it will not be designed to road standards. Due to the minimal grades, the cover on the drain will be minimal when it crosses under the road side ditches. Ditch grading will be required to increase the cover to a minimum of 0.3 m in these areas. Hydraulically, the drain is governed by the Detroit River water levels. In order to utilize the capacity of the drain during elevated water levels, a pump system would be required.

Estimate of Cost

It is recommended that the work be carried out in accordance with the accompanying Specification of Work and the Profile, which form part of this Report. There has been prepared an Estimate of Cost in the amount of \$145,260 including the following:

Construction	\$ 80,073
Construction Contingency Allowance	\$ 15,000
Allowances	\$ 1,340
Engineering	\$ 34,412
Updated Maintenance Schedule	\$ 2,000
Locates	\$ 3,350
Conservation Fees	\$ 800
Tendering (Provisional)	\$ 810
Inspection (Provisional)	\$ 5,000
Total	\$145,260

Assessment

As per Section 21 of the Drainage Act, the Engineer in his report shall assess for benefit and outlet for each parcel of land and road liable for assessment. Outlet assessments shall be based on equivalent hectares which represents the amount of water generated on properties. The equivalent hectare area considers the properties impervious surfaces such as buildings, paved areas etc.

The following are the equivalent hectare conversions rates utilized in this report.

Description	Area (ha)	Factor	Equivalent Area (ha)
Agricultural	1.0	1.0	1.0
Roads	1.0	4.0	4.0
Residential Lots	1.0	1.5-2.0	1.5-2.0

Lands, roads, buildings, utilities, or other structures that are increased in value or are more easily maintained as a result of the construction, improvement, maintenance, or repair of a drainage works may be assessed for benefit. (Section 22)

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

The Engineer may assess for special benefit any lands for which special benefits have been provided by the drainage works. (Section 24) The Storino's own the properties with the ARN ending in 600-07100 and 600-07200 and 600-07201. There has been significant correspondence with the Storino's over the cost associated with a lawn enclosure across their properties. It is R. Dobbin Engineering Inc.'s opinion that all costs, less maintenance and access credits, related to the maintenance, repair and replacement of the lawn enclosure are borne by the Landowners benefiting from the enclosure.

A Schedule of Assessment for lands and roads affected by the work and therefore liable for the cost thereof has been prepared as per the Drainage Act. Any affected public utility or road authority shall be assessed, as per Section 26 of the Drainage Act, any increased costs for the removal or relocation of any of its facilities and plant that may be necessitated by construction or future maintenance and repair work. The cost of any fees for permits or approvals or any extra work required by any affected utility, road authority, conservation authority, ministry, government agency, etc., federal or provincial, shall be assessed to that organization requiring the permit, approval, or extra work.

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

1. The headwall has been assessed with 66% of the costs as benefit assessment to the road authority and 34% of the costs assessed as an outlet assessment to upstream lands and roads based on equivalent hectares.

2. The catch basin fronting on Front Road South, Catch Basin #1, has been assessed with 33% of the cost applied as benefit assessment to the adjacent Landowner (ARN 600-07201), 33% of the costs as benefit assessment to the road authority and 33% of the costs assessed as an outlet assessment to upstream lands and roads based on equivalent hectares.
3. Catch Basin #3 has been assessed equally to the properties with the ARN's ending in 600-07100 and 600-07200.
4. Junction Box #2 has been assessed with 50% of the cost applied as benefit assessment to the adjacent Landowner (ARN 600-07100) and the remainder of the cost assessed as an outlet assessment on upstream lands and roads based on equivalent hectares.
5. Lawn enclosures which serve as an access have been assessed with 10 metres of the enclosure assessed with 50% of the cost applied as benefit assessment and the remainder of the cost assessed as an outlet assessment on upstream lands and roads based on equivalent hectares. The 10 meter enclosure equates to a standard access with a 6 metre top width and as such, costs beyond that have been assessed as a benefit assessment to the Landowner of the property. Based on the above, the lawn enclosures have been assessed as follows:
 - Station 0+020 to Station 0+028 – 25% of the cost applied as benefit assessment to the property (600-07201), 25% to the Road Authority and the remainder of the cost assessed as an outlet assessment on upstream lands and roads based on equivalent hectares.
 - Station 0+038 to Station 0+048 – 25% of the cost applied as benefit assessment to the property (600-07200), 25% to the Road Authority and the remainder of the cost assessed as an outlet assessment on upstream lands and roads based on equivalent hectares.
6. The lawn enclosures which do not serve as an access have been assessed as follows:
 - Station 0+028 to Station 0+038 – 43% of the cost applied as benefit assessment to the property (600-07200), 53% of the costs applied as a benefit to the road authority and the remainder of the cost assessed as an outlet assessment on upstream lands and roads based on equivalent hectares.
 - Station 0+048 to Station 0+088 – 67% of the cost applied as benefit assessment to the property (600-07200), 29% of the cost applied as benefit assessment to the property (600-07100) and the remainder of the cost assessed as an outlet assessment on upstream lands and roads based on equivalent hectares.

- Under this report it is proposed to incorporate the existing private drain enclosure into the drain under Section 31 of the Drainage Act. The incorporated drain has been assessed with 10 metres of the drain enclosure between Station 0+122 and Station 0+132 assessed with 50% of the cost applied as benefit assessment to the Landowner of the property and the remainder of the cost assessed as an outlet assessment on upstream lands and roads based on equivalent hectares. The 10 meter enclosure equates to a standard access with a 6 metre top width.

Allowances

Under Section 29 of the Drainage Act, the Engineer in his report shall estimate and allow in money to the Landowner of any land that it is necessary to use for the construction or improvement of a drainage works or for the disposal of material removed from drainage works. This shall be considered an allowance for right-of-way. Section 29 allowances will not be provided on private lands since the work includes improving an existing drain.

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

Under Section 31 of the Drainage Act, where an existing drain that was not constructed on requisition or petition under this Drainage Act or any predecessor of this Drainage Act is incorporated in whole or in part in a drainage works, the engineer in the report shall estimate and allow in money to the Landowner of such drain or part the value to the drainage works of such drain or part and shall include such sum in the estimates of the cost of the construction, improvement, repair or maintenance of the drainage works.

Allowances have been made, where appropriate, as per Section 30 of the Drainage Act for damages to lands and crops and as per Section 31 of the Drainage Act for an existing CSPA. Section 31 costs for the existing CSPA are \$108.18/m and are based on the 50% of the actual costs (1999) of the CSPA. The allowance of \$541 reflects 50% of a 10 m access culvert.

Conc.	Lot or Part	Roll No.	Owner	Section 30	Section 31	Total
1	Pt. Lot 11	600-07100	F. & G. Storino	200	540	740
	Pt. Lot 11	600-07200	F. & G. Storino	400		400
	Pt. Lot 11	600-07201	2627884 Ontario Inc.	100		100
	Pt. Lot 11	600-07250	2627884 Ontario Inc.	100		100
Total Allowances				\$800	\$540	\$1,340

Access and Working Area

The working area for the closed drain where buildings are not located within 10 m of the drain shall be 20 meters centred on the drain. The working area for the closed drain where buildings are located within 10 m of the drain shall be reduced to account for the existing buildings.

Access to the work site shall be gained from road allowances when possible, along existing private lanes and along the fence lines. Access to the working area along the private lanes and fence lines shall be restricted to a width of 6 metres.

Restrictions

No trees and shrubs shall be planted nor shall permanent structures be erected within 10 metres of either side of the proposed drain without prior written permission of Council. If trees are planted that interfere with access for future maintenance of the drainage works, they shall be removed at the expense of the Landowner.

Attention is also drawn to Sections 80 and 82 of the Drainage Act that refers to the obstruction of a drainage works.

Agricultural Grant

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

Maintenance

Upon completion of the work, the drainage works shall be maintained as per the applicable Schedules of Maintenance enclosed with this report unless otherwise altered under provisions of the Drainage Act or as outlined below. The maintenance schedules are used to prorate the actual maintenance costs when maintenance occurs. The costs illustrated on the Schedules of Maintenance are not part of the proposed improvements.

The cost to maintain the headwall at the outlet to the Detroit River shall be assessed to upstream properties based on equivalent hectares.

The Front Road South road crossing (Station 0+000 to Station 0+020) shall be maintained using the following cost distribution: 95% of the costs assessed to the road authority and 5% of the costs assessed to upstream properties based on equivalent hectares.

The cost to maintain Catch Basin #1 (CB #1) shall be assessed with 1/3 of the costs to the adjacent landowner (ARN 600-07201), 1/3 of the costs to the road authority and the remainder of costs to upstream properties based on equivalent hectares.

The cost to maintain Catch Basin #3 (CB #3) shall be assessed with 1/2 of the costs to the adjacent landowner (ARN 600-07100) and 1/2 of the costs to the adjacent landowner (ARN 600-07201).

The Cost to maintain the catchbasins with the paved portion the Front Street South shall be at the cost of the Road Authority.

The cost to maintain Junction Box 2 (JB #2) shall be assessed with 1/2 of the cost applied as benefit assessment to the adjacent Landowner (ARN 600-07100) and the remainder of the cost assessed as an outlet assessment on upstream lands and roads based on equivalent hectares.

The drain enclosure between Station 0+020 and 0+088 shall be maintained using the following cost distribution: 5% of the costs assessed to the Landowner (ARN 600-07100), 55% of the costs assessed to the Landowner (ARN 600-07200), 3% of the costs assessed to the Landowner (ARN 600-07201), 25% of the costs assessed to the Road Authority and the remainder of the cost assessed as an outlet assessment to upstream lands and roads based on equivalent hectares. In the future this section for drain may be utilized for an access to the property. Costs assessed upstream are based on a Granular 'A' driving surface. Any other surface shall be assessed as an additional special benefit to the Landowner.

The drain enclosure between Station 0+088 and 0+132 shall be maintained using the following cost distribution: 70% of the costs assessed to the Landowner (ARN 600-07100) and the remainder of the cost assessed as an outlet assessment to upstream lands and roads based on equivalent hectares. In the future this section for drain may be utilized for an access to the property. Costs assessed upstream are based on a Granular 'A' driving surface. Any other surface shall be assessed as an additional special benefit to the Landowner.

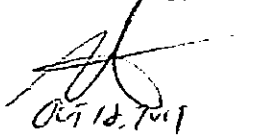
Maintenance of the open portions of the drain shall be assessed in accordance with the attached maintenance schedule (1).

The existing bridges between Station 0+132 and Station 1+317 shall be maintained or removed using the following cost distribution: 50% of the costs assessed to the benefiting Landowner and the remainder of the cost assessed as an outlet assessment to upstream lands and roads based on equivalent hectares.

These above conditions will apply unless otherwise altered under the provisions of the Drainage Act.

All of the above is submitted for your consideration.

Yours truly,



Mike Gerrits, P. Eng.



John Parks Drain No. 1
 Town of Amherstburg
 October 18, 2019

ALLOWANCES

Allowances have been made as per Section 30 and Section 31 of the Drainage Act.

Conc.	Lot or Part	Roll No.	Owner	Section 30	Section 31	Total
1	Pt. Lot 11	600-07100	F. & G. Storino	200	540	740
	Pt. Lot 11	600-07200	F. & G. Storino	400		400
	Pt. Lot 11	600-07201	2627884 Ontario Inc.	100		100
	Pt. Lot 11	600-07250	2627884 Ontario Inc.	100		100
Total Allowances				\$ 800	\$ 540	\$ 1,340

John Parks Drain No. 1
Town of Amherstburg
October 18, 2019

ESTIMATE OF COST

	Quantity	Unit	Material	Labour	Total
1 Traffic Control	1	l.s.	750	1,500	2,250
2 Locate Existing Corrugated Steel Pipe Culvert at Front Road South (Station 0+020)	1	l.s.	-	150	150
3 Locate Existing Corrugated Steel Pipe Culvert at Station 0+048	1	l.s.	-	150	150
4 Test Pit at Station 0+035	2	l.s.	-	150	150
5 Confirm Invert Elevation at Station 0+020 and Station 0+088	2	l.s.	-	300	300
6 Remove and Dispose of 900mm dia. Corrugated Steel Pipe Culvert	68	m	-	3,400	3,400
7 Remove and Dispose of 900mm dia. Corrugated Steel Pipe 90 Degree Bend	3	ea	-	75	75
8 Remove and Dispose of Existing Catch Basin	2	ea	-	300	300
9 Remove and Dispose of Existing Headwall (Station 0+000)	1	l.s.	-	500	500
10 Remove, Stockpile and Reinstall Paving Stones at 1217 Frot Road South	60	sq.m.	-	900	900
11 Remove, Dispose and Repair Existing Concrete Curb at 1217 Frot Road South	12	m	600	600	1,200
12 1050mm HDPE Drain c/w Bedding and Backfill	68	m	36,516	8,160	44,676
13 300mm HDPE CB Lead c/w connection to existing Road Catch Basin	5	m	230	225	455
14 1800mm X 1800mm Catchbasin (CB1) c/w Connection to Existing 900mm CSP	1	ea	2,200	680	2,880
15 1800mm X 1800mm Junction Box (JB2)	1	ea	2,200	680	2,880
16 1800mm dia. (CB3) c/w Connection to Existing CSP	1	ea	2,200	680	2,880
17 Ditch Grading Around CB1	10	m	0	250	250
18 Yard Restoration c/w 100mm Topsoil and Hydroseed	368	sq.m.	1,840	1,472	3,312
19 Concrete Block Outlet Headwall c/w Clear Stone Base (Station 0+000)	17	blocks	3,825	2,040	5,865
20 Triton Type 1 DOT Turbidity Barrier	1	l.s.	1,500	125	1,625
21 Rip Rap (Station 0+000)	10	l.s.	250	500	750
22 Work Around Existing Entrance Walls (Station 0+040)	1	l.s.	-	750	750
23 Work Around Gas Utility	1	l.s.	-	750	750
24 Work Around Waterline	1	l.s.	-	750	750
25 Work Around Hydro	1	l.s.	-	750	750
26 Work Around Fibre Optic Cable	1	l.s.	-	750	750
27 Work Around Telephone	1	l.s.	-	750	750
28 Granular B Backfill (Provisional)	25	t	375	250	625
Miscellaneous					15,000
Sub Total					95,073
Allowances					1,340
Survey, Design, Report and Meetings					34,412
Updated Maintenance Schedule					2,000
Utility Locates and Survey					3,350
Tendering (Provisional)					810
Inspection (Provisional)					5,000
ERCA Fee					800
Total Estimate excluding HST					142,785
Non-Recoverable HST (1.76%)					2,475
Total Estimate					145,260

John Parks Drain No. 1
Town of Amherstburg
October 18, 2019

SCHEDULE OF ASSESSMENT

Conc.	Lot or Part	Affected Hect.	Roll No.	Owner	Special Benefit	Benefit	Outlet	Total
3. Municipal Lands								
	County Road 20 (Front Street)	0.14		County of Essex	5,827	15,413	246	21,486
	Watermian			Town of Amherstburg	1,668	-	-	1,668
					<u>7,495</u>	15,413	246	23,154
				Total Special Benefit	7,495			
				Total Benefit	15,413			
				Total Outlet	246			
				Total - Municipal Lands	<u>23,154</u>			
4. Privately-Owned Non-Agricultural Lands								
1	Pt. Lot 12	0.01	600-07500	E. & P. Reaume	-	-	7	7
	Pt. Lot 12	0.02	600-07400	2627884 Ontario Inc.	-	-	15	15
	Pt. Lots 11 & 12	0.18	600-07300	2627884 Ontario Inc.	-	-	134	134
	Pt. Lot 11	-	600-07250	2627884 Ontario Inc.	-	-	-	-
	Pt. Lot 11	0.14	600-07201	2627884 Ontario Inc.	-	3,590	104	3,694
	Pt. Lot 11	0.14	600-07200	F. & G. Storino	41,818	8,197	140	50,155
	Pt. Lot 11	0.73	600-07100	F. & G. Storino	15,312	-	735	16,047
	Pt. Lot 11	0.62	600-07000	T. & G. Gillen	-	-	652	652
	Pt. Lot 11	0.16	600-06900	R. & C. Scott	-	-	229	229
	Pt. Lot 11	0.24	600-06800	M. Soullier	-	-	344	344
	Pt. Lot 11	0.12	600-06700	E. & E. Mooney	-	-	172	172
	Pt. Lot 11	0.14	600-06600	J. Neufeld	-	-	200	200
	Pt. Lot 11	0.05	600-06501	G. Michael & J. McLam	-	-	72	72
	Pt. Lot 11	0.03	600-06500	R. Leblanc	-	-	43	43
	Pt. Lot 11	1.19	600-06400	B. & S. Sutts	-	-	1,269	1,269
	Pt. Lot 10	0.11	600-06100	B. Wilder & J. Kotsis-Wilder	-	-	163	163

Conc.	Lot or Part	Affected Hect.	Roll No.	Owner	Special Benefit	Benefit	Outlet	Total
	Pt. Lot 10	0.15	600-06000	G. & A. Esposito	-	-	223	223
	Pt. Lot 10	0.10	600-05900	R. & S. Metcalfe	-	-	148	148
	Pt. Lot 10	0.16	600-05800	W. & S. Gibb	-	-	238	238
	Pt. Lot 10	0.36	600-05700	S. Bernyk	-	-	516	516
	Pt. Lot 10	0.20	600-05500	J. Brown	-	-	286	286
	Pt. Lot 10	0.15	600-05400	R. & C. Pouget	-	-	223	223
	Pt. Lot 10	0.05	600-05300	W. Pare	-	-	74	74
	Pt. Lot 10	0.04	600-05200	J. & M. Crump	-	-	59	59
	Pt. Lot 10	0.13	600-05100	N. Gyorgy	-	-	193	193
	Pt. Lot 10	0.22	600-05000	R. Giegerich	-	-	327	327
	Pt. Lot 10	0.23	600-04900	D. & R. Delbert	-	-	341	341
	Pt. Lot 10	0.54	600-04800	H. & R. Brough	-	-	773	773
	Pt. Lot 10	0.47	600-04620	M. & D. Gobbato & T. Berlasty	-	-	673	673
	Pt. Lot 10	0.80	600-04400	R. Levack & L. Bastien	-	-	1,146	1,146
	Pt. Lot 9	0.18	600-04300	Coulson Design-Build Inc.	-	-	273	273
	Pt. Lot 9	0.76	600-04200	J. & L Neufeld	-	-	1,275	1,275
	Pt. Lot 9	0.13	600-04100	J. & L Neufeld	-	-	197	197
	Pt. Lot 9	0.15	600-03900	C. Billingsley	-	-	227	227
	Pt. Lot 9	0.10	600-03800	S. & T. Waters	-	-	152	152
	Pt. Lot 9	0.12	600-03700	L. Dipierdomenico	-	-	182	182
	Pt. Lot 9	0.13	600-03600	R. Pare	-	-	197	197
	Pt. Lot 9	0.10	600-03500	J. Rice and C. Armstrong-Rice	-	-	152	152
	Pt. Lot 9	0.21	600-03400	S. & A. Colasanti	-	-	318	318
	Pt. Lot 8	0.11	600-03300	R. & D. Rivard	-	-	177	177
	Pt. Lot 8	0.16	600-03200	G. & A Balogh	-	-	258	258
	Pt. Lot 8	0.25	600-03100	J. Lovell	-	-	403	403
	Pt. Lot 8	0.12	600-03000	H. & M. Walschots	-	-	194	194
	Pt. Lot 8	0.24	600-02965	L. & N. Bieszk	-	-	387	387
	Pt. Lot 8	0.23	600-02955	A. & G. Pizzuto	-	-	371	371
	Pt. Lot 8	0.21	600-02945	R. & K. Spry	-	-	339	339
	Pt. Lot 8	0.17	600-02935	S. & A. Bazinski	-	-	274	274
	Pt. Lot 8	0.17	600-02925	M. Gobbato	-	-	274	274
	Pt. Lot 8	0.19	600-02916	J. Hodges & L. Lawrence	-	-	306	306
	Pt. Lot 8	0.19	600-02912	R. & C. Ball	-	-	306	306

Conc.	Lot or Part	Affected Hect.	Roll No.	Owner	Special Benefit	Benefit	Outlet	Total
	Pt. Lot 7	0.10	600-02800	D. & D. McWhinnie	-	-	161	161
	Pt. Lot 7	0.07	600-02700	G. & M. Mailloux	-	-	105	105
	Pt. Lot 7	0.14	600-02500	M. Mailloux	-	-	226	226
	Pt. Lot 7	0.12	600-02400	J. Hunt	-	-	194	194
	Pt. Lot 7	0.14	600-02301	J. & R. Thrasher	-	-	226	226
	Pt. Lot 7	0.20	600-02200	J. & L. Goodchild	-	-	323	323
	Pt. Lot 7	0.18	600-02100	M. & M. Pillon	-	-	290	290
					57,129	11,787	17,286	86,203
Total Special Benefit					57,129			
Total Benefit					11,787			
Total Outlet					17,286			
Total - Privately-Owned Non-Agricultural Lands					86,203			
 <u>5. Privately-Owned Agricultural Lands</u>								
1	Pt. Lot 11	3.8	600-06300	G. & R. Vandenbrink	-	750	2,663	3,413
	Pt. Lots 10 & 11	3.3	600-05600	S. & R. Gyori	-	750	2,363	3,113
	Pt. Lot 10	2.8	600-04610	S. Gyori & T. Rex	-	750	2,078	2,828
	Pt. Lot 9	6.4	600-04000	S. Gyori & T. Rex	-	750	4,750	5,500
	Pt. Lot 8	7.4	600-02900	S. Gyori & T. Rex	-	750	5,801	6,551
	Pt. Lot 7	9.4	600-02300	T.(Jr.) & T.(Sr.) Grace/M. Buchanan	-	-	7,827	7,827
					-	3,750	25,482	29,232
Total Special Benefit					-			
Total Benefit					3,750			
Total Outlet					25,482			
Total - Privately-Owned Agricultural Lands					29,232			

Conc.	Lot or Part	Affected Hect.	Roll No.	Owner	Special Benefit	Benefit	Outlet	Total
6. Special Non-Prorateable Assesments								
				Union Gas	1,668	-	-	1,668
				Bell Telephone	1,668	-	-	1,668
				Cogeco	1,668	-	-	1,668
				Hydro One	1,668	-	-	1,668
					<u>6,672</u>	-	-	<u>6,672</u>
				Total Special Benefit	6,672			
				Total Benefit	-			
				Total Outlet	-			
				Total - Special Non-Prorateable Assessments	<u>6,672</u>			
				Total - Municipal Lands	23,154			
				Total - Privately-Owned Non-Agricultural Lands	86,203			
				Total - Privately-Owned Agricultural Lands	29,232			
				Total - Special Non-Prorateable Assessments	<u>6,672</u>			
				Total Assessment	<u>\$145,260</u>			

John Parks Drain No. 1
Town of Amherstburg
October 18, 2019

SCHEDULE OF MAINTENANCE NO. 1

For maintaining the open section of the John Parks Drain between Station 0+132 and Station 1+317

Conc.	Lot or Part	Affected Hect.	Roll No.	Owner	Benefit	Outlet	Total	Equivalent Ha.
4. Privately-Owned Non-Agricultural Lands								
	Pt. Lot 11	0.62	600-07000	T. & G. Gillen	558	-	558	0.9
	Pt. Lot 11	0.16	600-06900	R. & C. Scott	-	8	8	0.3
	Pt. Lot 11	0.24	600-06800	M. Soullier	-	12	12	0.5
	Pt. Lot 11	0.12	600-06700	E. & E. Mooney	-	6	6	0.2
	Pt. Lot 11	0.14	600-06600	J. Neufeld	-	7	7	0.3
	Pt. Lot 11	0.05	600-06501	G. Michael & J. McLam	-	2	2	0.1
	Pt. Lot 11	0.03	600-06500	R. Leblanc	-	1	1	0.1
	Pt. Lot 11	1.19	600-06400	B. & S. Sutts	612	13	625	1.8
	Pt. Lot 10	0.11	600-06100	B. Wilder & J. Kotsis-Wilder	-	18	18	0.2
	Pt. Lot 10	0.15	600-06000	G. & A. Esposito	-	25	25	0.3
	Pt. Lot 10	0.10	600-05900	R. & S. Metcalfe	-	17	17	0.2
	Pt. Lot 10	0.16	600-05800	W. & S. Gibb	-	27	27	0.3
	Pt. Lot 10	0.36	600-05700	S. Bernyk	229	17	246	0.7
	Pt. Lot 10	0.20	600-05500	J. Brown	229	10	238	0.4
	Pt. Lot 10	0.15	600-05400	R. & C. Pouget	-	25	25	0.3
	Pt. Lot 10	0.05	600-05300	W. Pare	-	8	8	0.1
	Pt. Lot 10	0.04	600-05200	J. & M. Crump	-	7	7	0.1
	Pt. Lot 10	0.13	600-05100	N. Gyorgy	-	22	22	0.3
	Pt. Lot 10	0.22	600-05000	R. Giegerich	-	37	37	0.4
	Pt. Lot 10	0.23	600-04900	D. & R. Delbert	-	38	38	0.5
	Pt. Lot 10	0.54	600-04800	H. & R. Brough	229	26	255	1.1
	Pt. Lot 10	0.47	600-04620	M. & D. Gobbato & T. Berlasty	229	23	251	0.9

Conc.	Lot or Part	Affected Hect.	Roll No.	Owner	Benefit	Outlet	Total	Equivalent Ha.
	Pt. Lot 10	0.80	600-04400	R. Levack & L. Bastien	229	39	267	1.6
	Pt. Lot 9	0.18	600-04300	Coulson Design-Build Inc.	-	32	32	0.4
	Pt. Lot 9	0.76	600-04200	J. & L. Neufeld	594	28	622	1.1
	Pt. Lot 9	0.13	600-04100	J. & L. Neufeld	-	23	23	0.3
	Pt. Lot 9	0.15	600-03900	C. Billingsley	-	26	26	0.3
	Pt. Lot 9	0.10	600-03800	S. & T. Waters	-	18	18	0.2
	Pt. Lot 9	0.12	600-03700	L. Dipierdomenico	-	21	21	0.2
	Pt. Lot 9	0.13	600-03600	R. Pare	-	23	23	0.3
	Pt. Lot 9	0.10	600-03500	J. Rice and C. Armstrong-Rice	-	18	18	0.2
	Pt. Lot 9	0.21	600-03400	S. & A. Colasanti	-	37	37	0.4
	Pt. Lot 8	0.11	600-03300	R. & D. Rivard	-	45	45	0.2
	Pt. Lot 8	0.16	600-03200	G. & A Balogh	-	66	66	0.3
	Pt. Lot 8	0.25	600-03100	J. Lovell	-	102	102	0.5
	Pt. Lot 8	0.12	600-03000	H. & M. Walschots	-	49	49	0.2
	Pt. Lot 8	0.24	600-02965	L. & N. Bieszk	-	98	98	0.5
	Pt. Lot 8	0.23	600-02955	A. & G. Pizzuto	-	94	94	0.5
	Pt. Lot 8	0.21	600-02945	R. & K. Spry	-	86	86	0.4
	Pt. Lot 8	0.17	600-02935	S. & A. Bazinski	-	70	70	0.3
	Pt. Lot 8	0.17	600-02925	M. Gobbato	-	70	70	0.3
	Pt. Lot 8	0.19	600-02916	J. Hodges & L. Lawrence	-	78	78	0.4
	Pt. Lot 8	0.19	600-02912	R. & C. Ball	-	78	78	0.4
	Pt. Lot 7	0.10	600-02800	D. & D. McWhinnie	-	146	146	0.2
	Pt. Lot 7	0.07	600-02700	G. & M. Mailloux	-	95	95	0.1
	Pt. Lot 7	0.14	600-02500	M. Mailloux	-	204	204	0.3
	Pt. Lot 7	0.12	600-02400	J. Hunt	-	175	175	0.2
	Pt. Lot 7	0.14	600-02301	J. & R. Thrasher	-	204	204	0.3
	Pt. Lot 7	0.20	600-02200	J. & L. Goodchild	-	291	291	0.4
	Pt. Lot 7	0.18	600-02100	M. & M. Pillon	-	262	262	0.4
					<u>2,907</u>	<u>2,822</u>	<u>5,729</u>	
				Total Benefit	2,907			
				Total Outlet	<u>2,822</u>			
				Total - Privately-Owned Non-Agricultural Lands .	<u>5,729</u>			

Conc.	Lot or Part	Affected Hect.	Roll No.	Owner	Benefit	Outlet	Total	Equivalent Ha.
<u>5. Privately-Owned Agricultural Lands</u>								
1	Pt. Lot 11	3.8	600-06300	G. & R. Vandenbrink	612	22	634	3.8
	Pt. Lots 10 & 11	3.3	600-05600	S. & R. Gyori	572	80	652	3.3
	Pt. Lot 10	2.8	600-04610	S. Gyori & T. Rex	572	68	639	2.8
	Pt. Lot 9	6.4	600-04000	S. Gyori & T. Rex	1,782	532	2,314	6.4
	Pt. Lot 8	7.4	600-02900	S. Gyori & T. Rex	2,700	1,084	3,784	7.4
	Pt. Lot 7	9.4	600-02300	T.(Jr.) & T.(Sr.) Grace/M. Buchanan	1,485	2,478	3,963	9.4
					<u>7,722</u>	<u>4,264</u>	<u>11,986</u>	
				Total Benefit	7,722			
				Total Outlet	4,264			
				Total - Privately-Owned Agricultural Lands	<u>11,986</u>			
				Total - Privately-Owned Non-Agricultural Lands	5,729			
				Total - Privately-Owned Agricultural Lands	<u>11,986</u>			
				Total Assessment	<u>\$ 17,715</u>			

John Parks Drain No.1
Town of Amherstburg
October 18, 2019

SPECIFICATION OF WORK

1. Scope of Work

The work to be included in this specification includes the replacement of an existing culvert, replacement of an existing headwall and future replacement of a culvert in the South Part of Lot 11, Concession 1 in the Town of Amherstburg. Specifications for the maintenance and repair of the open channel works are to be in accordance with William J. Setterington's Engineers Report dated February 6, 1976.

2. General

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

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

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

All work must be completed in accordance with the attached Fisheries and Oceans Canada letter (19-HCAA-00837) dated October 7, 2019.

3. Plans and Specifications

These specifications shall apply and be part of the Contract along with the General Specifications for Closed Drains and the General Specifications for Open Drains. This Specification of Work shall take precedence over all plans and general conditions pertaining to the Contract. The Contractor shall provide all labour, equipment, materials, and supervision necessary to complete the work as shown in the Plans and described in

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

Any reference to the Owner contained in these Contract Documents shall refer to the Town of Amherstburg or the Engineer authorized by the Town of Amherstburg to act on its behalf.

4. Health and Safety

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

The Contractor shall be responsible for traffic control as per the Ontario Traffic Manual Book 7 – Temporary Conditions (latest revision) when working on public road allowances. A copy of a traffic control plan shall be kept on site at all times. The Contractor shall maintain suitable barricades, warning lights, and temporary traffic notices, at his expense, in their proper position to protect the public both day and night. Flagmen are the responsibility of the Contractor when working on the road allowance and when entering or exiting a worksite onto a roadway.

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

He shall also ensure that only competent workmen are employed onsite and that appropriate training and certification is supplied to all employees.

5. Workplace Safety and Insurance Board

Upon award of the contract and prior to commencement of work, the Contractor shall furnish the Town of Amherstburg with a satisfactory Certificate of Insurance (COI) containing the information below, for the period of the execution of the work:

- i. A Commercial General Liability (CGL) policy that shall be not less than 5 million dollars per occurrence.

- ii. The CGL policy shall include bodily injury including death, personal injury, property damage, tenants legal liability, non-owned automobile and contain a cross liability/severability of interest clause. The certificate must also include acknowledgement that coverage under the policy specifically extends to the works in question. The COI shall name the Town of Amherstburg as additional insured to the policy.
- iii. The CGL policy shall not contain any exclusion or limitation in respect to shoring, underpinning, raising or demolition of any building or structure, pile driving, caisson work, collapse of any structure or subsidence of any property, structure or land from any cause.
- iv. The Contractor shall note that where construction works are performed within lands owned by the County of Essex or Ministry of Transportation the CGL policy shall also name the County of Essex and/or the Ministry of Transportation as additional insured to the policy.
- v. The liability insurance shall be endorsed to provide that the policy shall not be altered, cancelled or allowed to lapse without 30 days prior written notice to the Town of Amherstburg.

6. MNR Drain Registration

The Contractor is advised that the Town of Amherstburg has conducted an "Endangered Species Act Review" and has registered its drainage activities with the Ministry of Natural Resources and Forestry.

The Town of Amherstburg, in pursuant to the Endangered Species Act Municipal Agreement, has identified the potential presence of certain species within the project area. It is the responsibility of the Contractor to make certain that necessary provisions are undertaken to ensure the protection of all species at risk and their habitats throughout the course of construction. It is also the responsibility of the Contractor to make itself familiar with the following documents:

1. Town of Amherstburg – Complete Mitigation Documents
2. Town of Amherstburg - Additional Mitigation Measures for Snakes Species
3. Town of Amherstburg - Additional Mitigation Measures for Turtle Species
4. Snakes of Ontario Identifier Guide

5. Turtles of Ontario Identifier Guide

These documents will be provided to the successful bidder.

The Contractor will be responsible for providing the necessary equipment and materials required by the mitigation plans and shall contact the Town of Amherstburg Drainage Superintendent immediately if any endangered species are encountered during construction.

7. Benchmarks

The benchmark is based on geodetic elevations. Elevations are available at the hydrant at the front of #1205 Front Road South.

8. Access and Working Area

The working area for the closed drain where buildings are not located within 10 m of the drain shall be 20 meters centred on the drain. The working area for the closed drain where buildings are located within 10 m of the drain shall be reduced to account for the existing buildings.

Access to the work site shall be gained from road allowances when possible, along existing private lanes and along the fence lines. Access to the working area along the private lanes and fence lines shall be restricted to a width of 6 metres.

9. Removals

All required corrugated steel pipe material, headwalls and catch basins shall be removed in its entirety and disposed of offsite by the Contractor.

During future maintenance operations the access culvert at Station 0+211 shall be and disposed of offsite.

10. Locate Existing Drain, Verify Invert Elevations and Grade Changes

The Contractor shall locate the existing corrugated steel pipe drain at Station 0+020, Station 0+048 and Station 0+088. The Contractor shall also complete a test pipe at Station 0+035 to confirm that the alignment is not located within an existing septic weeping bed. The Contractor shall notify the Engineer of all invert elevations prior to completing any drainage works. If necessary, the Engineer will confirm a revised gradeline between CB#1 and CB#3 prior to installing the drain.

11. Installation of High Density Polyethylene Pipe Drain

The Contractor shall supply, install and backfill the drain. The pipe shall be high density polyethylene (HDPE) smooth wall pipe (320 kPa) shall be with bell and spigot joints. The drain between Station 0+020 and Station 0+088 shall be replaced with a 1050mm HDPE pipe. The drain between Station 0+088 and Station 0+132 shall be replaced with a 1050mm HDPE pipe in the future or equivalent arch pipe.

The proposed HDPE pipe drain may be installed along a different alignment and will require the Contractor to work around an existing septic bed, masonry entrance feature and adjacent to existing buildings.

The bottom of the excavation shall be excavated to the required depth with any over excavation backfilled with granular material or 3/4 inch clear stone. When the pipe has been installed to the proper grade and depth, the excavation shall be backfilled with granular or clear stone from the bottom of the excavation to the springline of the pipe. Care shall be taken to ensure that the backfill on either side of the culvert does not differ by more than 300mm so that the pipe is not displaced. The drain shall be backfilled from the springline to within 100mm of finished grade with excavated material. The top 100mm shall be backfilled with topsoil. In areas where there are residential driveways the drain shall be backfilled from the springline to finished grade with granular "B 1" to within 300mm of finished grade. The top 300mm shall be backfilled with compacted granular "A" material to finished grade.

Note that if excavated material is found unsuitable for backfill purposes, then granular material will be required as backfill. Unit prices shall be established in any tender for the disposal of the excavated material and the import of approved granular material at the expense of the drainage works.

All backfill shall be free from deleterious material. All granular bedding material shall be mechanically compacted to 95% modified standard proctor density. All backfill material

above the springline shall be mechanically compacted to 95% modified proctor density using appropriate compaction equipment.

These specifications apply to proposed and future works on the drain.

12. Installation of Culverts (Future)

The Contractor shall supply, install, and backfill pipe culverts. Pipe materials can be either HDPE Pipe Culverts or Corrugated Steel Pipe (CSP) culverts as specified below. High density polyethylene (HDPE) smooth wall pipe (320 kPa) with coupler joints. Corrugated Steel Pipe (CSP) culverts shall be aluminized corrugated steel pipe with a minimum wall thickness of 2.8mm in all cases. All corrugation profiles shall be of helical lockseam manufacture using 68mm x 13mm corrugations for 1600mm diameter pipe and smaller. Pipe with 125mm x 25mm corrugations shall be used if 68mm x 13mm corrugations are not available. Culvert material shall meet all ASTM and CSA requirements.

Access Culvert	Station	HDPE (mm)	CSP (mm)
2	0+334	900	1000
3	0+390	900	900
4	0+594	900	900
5	0+739	900	900
6	1+030	760	900

All granular bedding and backfill material shall be mechanically compacted to 95% modified standard proctor density. The top 300mm of Granular "B" material shall be mechanically compacted to 98% modified standard proctor density and the top 150mm of Granular "A" material shall be mechanically compacted to 100% modified standard proctor density. The Contractor shall supply any extra backfill material required above the springline. Payment for additional material shall be specified in the Contract documents.

Pipe culverts shall be constructed 150mm below the original grade line identified in the W. Settrington report prepared in 1976. The bottom of the excavation shall be excavated to the required depth with any over excavation backfilled with granular material or clear stone. When the pipe has been installed to the proper grade and depth, the excavation shall be backfilled with Granular "A" or clear stone from the bottom of the excavation to the springline of the pipe. Care shall be taken to ensure

that the backfill on either side of the culvert does not differ by more than 300mm so that the pipe is not displaced.

The Contractor shall maintain a dry working area during construction. The Contractor shall install a silt fence downstream of the work area (at bottom end of channel improvement if all work is completed at the same time). The silt fence shall consist of filter fabric or manufactured silt fence supported with posts (OPSD 219.190). For access culverts that are to be constructed, a temporary dam may be necessary.

13. Catchbasins

The catch basins shall be installed to the elevations and in the locations shown on the drawings as follows:

Structure	Station	Type Elev. (mm)	Inlet (Top) (m)	Outlet Pipe Elev. (m)	Inlet Pipe Elev. (m)
CB #1	0+020	1800X1800	175.69	174.39 (914mm)	174.39 (1050mm)
CB #3	0+088	1800X1800	175.90	174.41 (1050mm)	174.33 (1030mmX740mm)

Note - CB#3 Inlet Invert lower than outlet invert

The structures shall be precast concrete structures as noted above. The structures shall have a flat top with herringbone grates in accordance with OPSD 400.0100.

The structures shall be made with the top sections separate from the base sections in order to allow riser sections to be installed or removed as necessary (i.e. the base section shall not extend for more than 150mm above the top of the highest opening in the base section). The wall thickness of all structures shall be 115mm and each shall have a 600mm sump.

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

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

The existing catch basin is to be removed and replaced in a new location. Minor grading within the road allowance will be required to ensure water is directed to the proposed catch basin. The 300mm dia. lead connecting the existing Front Road South catch basin to the new main shall be replaced with an HDPE tile. The HDPE tile shall be smooth wall pipe shall be coupler joint (320 kPa).

Restoration in accordance with specification 15.

14. Junction Box

The junction box shall be installed to the elevations and in the locations shown on the drawings as follows:

Structure	Station	Type (mm)	Base Elev. (m)	Outlet Pipe Elev. (m)	Inlet Pipe Elev. (m)
JB #2	0+048	1800X1800	173.80	174.40 (1050mm)	174.40 (1050mm)

The junction box shall be 1800 mm x 1800 mm square precast concrete structures as noted above.

The junction boxes shall be made with the top sections separate from the base sections in order to allow riser sections to be installed or removed as necessary (i.e. the base section shall not extend for more than 150mm above the top of the highest opening in the base section). The wall thickness of all structures shall be 115mm and each shall have a 600mm sump.

The junction boxes shall be set on a layer of clear stone. The clear stone shall be extended up to the top of the inlet and outlet pipe connections

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

15. Installation of Headwall

End protection shall consist of concrete blocks with dimensions of approx. 600mm x 600mm x 1200mm, 600mm x 600mm x 2400mm or 300mm x 600mm x 1200mm as required. The top of the culvert shall govern block elevation. The correct block shall be set with the top of the block equal to the top of the culvert. The blocks shall be set at each end of the culvert so that each row of blocks will be offset approx. 100mm from the row below. The bottom row shall consist of one block placed parallel to the culvert. The blocks shall be imbedded a minimum of 300mm into each bank and shall extend into the drain bottom to match the pipe invert or below.

The blocks shall be placed over a layer of filter fabric (Terrafix 270R or approved equal). The culvert shall be backfilled in conjunction with the placement of the blocks. The gaps between the culvert and the blocks shall be filled with concrete cinder blocks/bricks and mortar to give the endwall a finished appearance. Any voids in the backfill shall be filled with clear stone.

The Contractor shall maintain a dry working area during construction. The Contractor shall install a silt fence downstream of the work area (at bottom end of channel improvement if all work is completed at the same time). The silt fence shall consist of filter fabric or manufactured silt fence supported with posts (OPSD 219.190).

The concrete blocks shall be Easy Block by Underground Specialties or an approved equivalent. Approved equivalents must be approved in writing by the engineer or drainage superintendent prior to purchasing the blocks. A water control plan shall be submitted by the Contractor prior to removing the existing headwall.

16. Restoration

Restoration of the boulevards shall be in accordance with the following:

- Disturbed areas shall be restored in accordance with the Contract drawings and include a minimum of 100mm of native topsoil and hydroseed. Native topsoil is to match existing depths. Topsoil is to be placed in accordance with OPSS 802. Seed is to be supplied and placed in accordance with OPSS 804.

Restoration of the drive ways shall be in accordance with the following:

- Paving stones shall be removed and stockpiled for reuse.
- Contractor shall restore disturbed areas with the salvaged stones, 300mm of granular B compacted to 98% modified standard proctor density and 150mm of

screenings. Screenings shall be compacted to 100% modified standard proctor density.

Restoration (Future) of the Front Road South culvert shall be in accordance with the following:

- Excavation in accordance with OPSS 206
- Compaction in accordance with OPSS 501 (Prov.)
- HL4 asphalt to match the existing depths. Asphalt in accordance with OPSS 310.
- 150mm (minimum) of Granular 'A' and 300mm (minimum) of Granular '13'. Granular in accordance with OPSS 1010. Granular depths can be increased to match existing granular depths.
- Disturbed areas within the road right of way shall be restored in accordance with the contract drawings and include roadside ditching, 100mm of native topsoil, seed and mulch. Topsoil in accordance with OPSS 802. Seed and mulch in accordance with OPSS 804.

17. Turbidity Barrier

A turbidity barrier shall be installed in the Detroit River at the John Parks Drain No. 1 outlet. The turbidity curtain shall be installed by dragging it away from the headwall to scare any fish away from the headwall. The turbidity barrier shall be Triton Type 1 DOT by GEI Works or an approved equivalent. Approved equivalents must be approved in writing by the engineer or drainage superintendent prior to purchasing the turbidity barrier. The Contractor shall inspect the turbidity curtain on a daily basis to ensure it is functioning properly.

18. Environmental Considerations

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

1. All excavated and stockpiled material shall be placed a minimum of 1.5 metres from the top of the bank. Material shall not be placed in surface water runs or open inlets that enter the channel.
2. All granular and erosion control materials shall be stockpiled a minimum of 1.5 metres from the top of the bank. Material shall not be placed in surface water runs or open inlets that enter the channel.

3. All activities, including maintenance procedures, shall be controlled to prevent the entry of petroleum products, debris, rubble, concrete, or other deleterious substances into the water. Vehicle and equipment refuelling and maintenance shall be conducted away from the channel, any surface water runs, or open inlets. All waste materials shall be stockpiled well back from the top of the bank and all surface water runs and open inlets that enter the drain.

4. All construction in the channel shall be carried out during periods of low flow. When possible the Contractor shall schedule work to avoid periods of high winds and rain. The Contractor shall maintain a dry working area during construction. The Contractor shall install a silt fence downstream of the work area. The silt fence shall consist of filter fabric or manufactured silt fence supported with posts. A temporary dam consisting of excavated material shall be constructed upstream and downstream of the work area if working during low water flow. The temporary dams shall be covered with filter fabric or plastic that shall be anchored with rip rap material or broken concrete. Water shall be bailed and pumped from the work area to an area downstream of the temporary dam and upstream of the silt fence. Water will be controlled in the area between the two temporary dams for the duration of construction using pumps, if necessary.

After completion of the construction, the temporary dams and any collected sediment shall be removed. The final removal shall be the silt fence. By following the above procedure, the work should have little or no impact on the existing channel if carried out during low flows. Timing restrictions should not apply, in my opinion, if the above procedures are followed.

5. The Contractor shall take care to adhere to the following Best Management Practices prepared by the Department of Fisheries and Ocean.

a) Culvert Replacements in Municipal Drains (Appendix A)

6. The Contractor shall take care to familiarize them with the Town of Amherstburg's mitigation documents and species identification guidelines which will be provided to the successful bidder.

7. The timing window for this project is July 15 to October 1 of any calendar year.

19. MNR Drain Registration

The Contractor is advised that the Town of Amherstburg has conducted an "Endangered Species Act Review" and has registered its drainage activities with the Ministry of Natural Resources and Forestry.

The Town of Amherstburg, in pursuant to the Endangered Species Act Municipal Agreement, has identified the potential presence of certain species within the project area. It is the responsibility of the Contractor to make certain that necessary provisions are undertaken to ensure the protection of all species at risk and their habitats throughout the course of construction. It is also the responsibility of the Contractor to make itself familiar with the following documents:

6. Town of Amherstburg – Complete Mitigation Documents
7. Town of Amherstburg - Additional Mitigation Measures for Snakes Species
8. Town of Amherstburg - Additional Mitigation Measures for Turtle Species
9. Snakes of Ontario Identifier Guide
10. Turtles of Ontario Identifier Guide

These documents will be provided to the successful bidder.

The Contractor will be responsible for providing the necessary equipment and materials required by the mitigation plans and shall contact the Town of Amherstburg Drainage Superintendent immediately if any endangered species are encountered during construction.

20. Miscellaneous

Any subsurface drains encountered upstream of the culvert that conflict with the proposed culvert shall be extended to an outlet to the open channel to the approval of the Drainage Superintendent.

Any fences that must be removed to allow construction or maintenance shall be reinstalled by the Contractor using the existing materials.

It will be the Landowner's responsibility to mark all tile and tile mains prior to maintenance being carried out.



Fisheries and Oceans Pêches et Océans
Canada Canada

Central and Arctic Region
Fish and Fish Habitat Protection Program
867 Lakeshore Road
Burlington, Ontario
L7S 1A1

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

October 7, 2019

Your file Votre référence

Our file Notre référence
19-HCAA-00837

Michael Gerrits
R. Dobbin Engineering Inc.
4218 Oil Heritage Road
Petrolia, ON
N0N 1R0

**Subject: Headwall and Enclosure Replacement, John Parks Drain No.1, C,
Amhurstberg (19-HCAA-00837) - Implementation of Measures to Avoid
and Mitigate the Potential for Prohibited Effects to Fish and Fish Habitat**

Dear Mr. Gerrits:

The Fish and Fish Habitat Protection Program (the Program) of Fisheries and Oceans Canada (DFO) received your proposal on July 9, 2019. We understand that you propose to:

- Replace an existing enclosed drain with a new HPDE pipe; and
- Replace an existing headwall structure.

Our review considered the following information:

- Request for Review and supporting documents submitted by Ryan Smith on July 9th, 2019;
- Email correspondence on August 16th with Mike Gerrits confirming that the area would be isolated from fish using a turbidity curtain; and
- Email correspondence with Mike Gerrits on August 22nd confirming that the enclosure will be replaced with an HPDE pipe.

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

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

Canada

.../2

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

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

- Plan in-water works, undertakings and activities to respect timing windows to protect fish, including their eggs, juveniles, spawning adults and/or the organisms upon which they feed and migrate (<http://www.dfo-mpo.gc.ca/pnw-ppe/timing-periodes/index-eng.html>)
- No temporary or permanent increase in existing footprint below the high water mark
- Conduct in-water undertakings and activities during periods of low flow
- Limit the duration of in-water works, undertakings and activities so that it does not diminish the ability of fish to carry out one or more of their life processes (spawning, rearing, feeding, migrating)
- Develop and implement a Sediment Control Plan to minimize sedimentation of the waterbody during all phases of the work, undertaking or activity
 - Conduct all in-water works, undertakings or activities in isolation of open or flowing water to reduce the introduction of sediment into the watercourse
 - Schedule work to avoid wet, windy and rainy periods (and heed weather advisories)
 - Inspect and maintain regularly the erosion and sediment control measures and structures during all phases of the project
 - Remove all exposed non-biodegradable sediment control materials once site has been stabilized
 - Monitor the watercourse to observe signs of sedimentation during all phases of the work, undertaking or activity and take corrective action
 - Dispose and stabilize all dredged material above the high water mark of nearby waterbodies to prevent entry in the water
- Do not deposit any deleterious substances in the water course
- Develop and implement a response plan to avoid a spill of deleterious substances
 - Stop work, contain sediment-laden water and other deleterious substances and prevent their further migration into the watercourse
 - Keep an emergency spill kit on site during the work, undertaking or activity
 - Report any spills of sewage, oil, fuel or other deleterious material, whether near or directly into a water body
 - Ensure clean-up measures are suitably applied so as not to result in further alteration of the bed and/or banks of the watercourse

- Clean-up and appropriately dispose of the sediment-laden water and deleterious substances
- Maintain all machinery on site in a clean condition and free of fluid leaks
- 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

Provided that you incorporate these measures into your plans, the Program is of the view that your proposal will not require an authorization under the *Fisheries Act* or the *Species at Risk Act*.

Should your plans change or if you have omitted some information in your proposal, further review by the Program may be required. Consult our website (<http://www.dfo-mpo.gc.ca/pnw-ppe/index-eng.html>) or consult with a qualified environmental consultant to determine if further review may be necessary. It remains your responsibility to remain in compliance with the *Fisheries Act*, avoid prohibited effects on listed aquatic species at risk, any part of their critical habitat or the residences of their individuals.

It is also your *Duty to Notify* DFO if you have caused, or are about to cause, the death of fish by means other than fishing and/or the harmful alteration, disruption or destruction of fish habitat. Such notifications should be directed to (<http://www.dfo-mpo.gc.ca/pnw-ppe/CONTACT-eng.html>)

Please notify this office at least 10 days before starting your project. A copy of this letter should be kept on site while the work is in progress. It remains your responsibility to meet all other federal, territorial, provincial and municipal requirements that apply to your proposal.

If you have any questions with the content of this letter, please contact Jessica Cotton at our Burlington office by email at jessica.cotton@dfo-mpo.gc.ca. Please refer to the file number referenced above when corresponding with the Program.

Yours sincerely,



Sara Eddy
Team Leader, Triage and Planning

APPENDIX A

Best Management Practices – Culvert Replacements in Municipal Drains

This document describes the conditions on which one may proceed with a culvert replacement in a municipal drain without DFO approval/notification. All municipal, provincial, or federal legislation that applies to the work being proposed must be respected. If the conditions/requirements below cannot be met, please complete the drain notification form and submit it to the Fisheries Protection Program form review at: FisheriesProtection@dfp-mpo.gc.ca.

Potential Impacts to Fish Habitat

- Infilling fish habitat by encroachment of the water crossing footprint or channel realignment to accommodate culvert
- Harmful substrate alteration of fish habitat (e.g. blockage of groundwater upwellings, critical SAR habitat, spawning areas)
- Removal of riparian vegetation and cover along the banks of the municipal drain
- Removal of edge habitat (e.g. undercut bank, shallower areas with lower velocity, aquatic vegetation) creation of barriers to fish movement (e.g. perched crossings, velocity barriers, alteration of the natural stream gradient)
- Alteration of channel flow velocity and/or depth (e.g. oversized culvert resulting in insufficient depth for fish passage at low flow or undersized culvert resulting in a flow velocity barrier at high flow)
- Alteration of channel morphology and sediment transport processes caused by the physical structure of the crossing resulting in upstream and downstream sediment aggradation/erosion
- Re-entry of sediment that was removed/stockpiled into the watercourse
- Erosion downstream from sudden release of water due to the failure of site isolation
- Stranding of fish in isolated ponds following de-watering of the site
- Impingement or entrainment of fish when de-watering pumps are used
- Short term or chronic transport of deleterious substances, including sediment, into fish habitat from construction or road drainage

Requirements

The following requirements must be met:

- There are no aquatic Species at Risk present in the work zone or impact zone. To confirm there are no aquatic Species at Risk present, refer to the document, [A Guide for Interpreting Fish and Mussel Species at Risk Maps in Ontario](http://www.dfp-mpo.gc.ca/Library/356763.pdf) which can be found at: <http://www.dfp-mpo.gc.ca/Library/356763.pdf>. Links for Ontario Conservation Area specific fish and mussel maps that include critical habitat extents and a list of aquatic Species at Risk found within the conversation authority boundary can be found on Page 5 of [A Guide for Interpreting Fish and Mussel Species at Risk Maps in Ontario](#).
- The culvert is embedded into the streambed and must allow for the free passage of fish.
- The work involves like-for-like replacements of existing road or private access culverts on all drain types without SAR.
- On C and F Drains only, this can also include replacements with extensions and end walls for the purposes of providing the property or road with safe access, but the project permanent footprint will not increase more than 250 m² below the high water mark.
- The project does not involve replacing a bridge or arch with one or more culverts installed in parallel or a larger-diameter culvert with more than one culvert installed in parallel.

- The project does not involve building more than one culvert installed in parallel on a single watercourse crossing site (e.g. twin culvert).
- The project does not involve temporarily narrowing the watercourse to an extent or for a duration that is likely to cause erosion, structural instability or fish passage problems.
- The municipal drain has no flow/low flow or is frozen to the bottom at the time of the replacement.
- In-water work is scheduled to respect timing windows (Tables 1 and 2) to protect fish, including their eggs, juveniles, spawning adults, and/or the organisms upon which they feed.
- The work can be conducted using the Culvert Removal Method described below and Standard Measures to Avoid Causing Serious Harm to Fish will be implemented when required.

Note: If your project must be conducted without delay in response to an emergency (e.g. the project is required to address an emergency that poses a risk to public health or safety or to the environment or property), you may apply for an Emergency Authorization (<http://www.dfo-mpo.gc.ca/asp/forceDownload.asp?FilePath=/pnw-ppa/reviews-revues/Emergency-Authorizations-Autorisations-Urgences-eng.pdf>).

Culvert Removal Methodology

- Plan/manage the work site in a manner that prevents sediment from entering the municipal drain by installing sediment and erosion control materials where required. Ensure that a sediment and erosion control plan is developed and modified as necessary for the site.
- Where required, install effective erosion and sediment control measures before starting work to prevent sediment from entering the municipal drain.
- Implement site isolation measures when in-water work is required.
 - Install an impervious barrier upstream of the work area (Figure 1). If possible, install a secondary barrier upstream of the work area for added protection.
 - Attempt to drive out the fish from the work area and then install the impervious barrier downstream of the work area. This may reduce or eliminate the need for a fish salvage.
 - When the drain is flowing, maintain downstream flows (e.g. bypass water around the work site using pumps or flume pipes; Figure 2). Provide temporary energy dissipation measures (e.g. rip-rap) at discharge point of the hose or temporary outlet pipe when required. Routinely inspect bypass pump and hose or pipe to ensure proper operation. Inspect discharge point for erosion and reposition hose/pipe or install additional temporary energy dissipation material as needed.
 - Dewater the isolated work area. The hose for a pump may discharge along the top of the bank into existing vegetation; however, the area should be monitored for signs of erosion. Reposition the hose or install additional temporary energy dissipation material as needed.
 - A fish screen with openings no larger than 2.54 mm (0.10 inches) should be equipped on any pump used during the operation. Note: Additional information regarding fish screens can be found in the DFO Freshwater Intake End-of-Pipe Fish Screen Guideline document (<http://www.dfo-mpo.gc.ca/Library/223669.pdf>).
 - Collect any fish present in the isolated work area and relocate them downstream.
 - Fish salvage operations must be conducted under a license issued by the Ontario Ministry of Natural Resources and Forestry (MNRF). The MNRF should be contacted well in advance of any work to obtain the required fish collection license.
- Install the culvert so that it is embedded into the streambed; ensure the culvert remains passable (e.g. does not become perched) by fish and wildlife.

- Decommission the site isolation in a manner that minimizes the introduction of sediment. The downstream isolation barrier shall gradually be removed first, to equalize water levels inside and outside of the isolated area and to allow suspended sediments to settle.
- Stabilize and remove waste from the site.
- Where required, maintain effective erosion and sediment control measures until complete re-vegetation of disturbed areas is achieved.



Figure 2. Isolation of Site

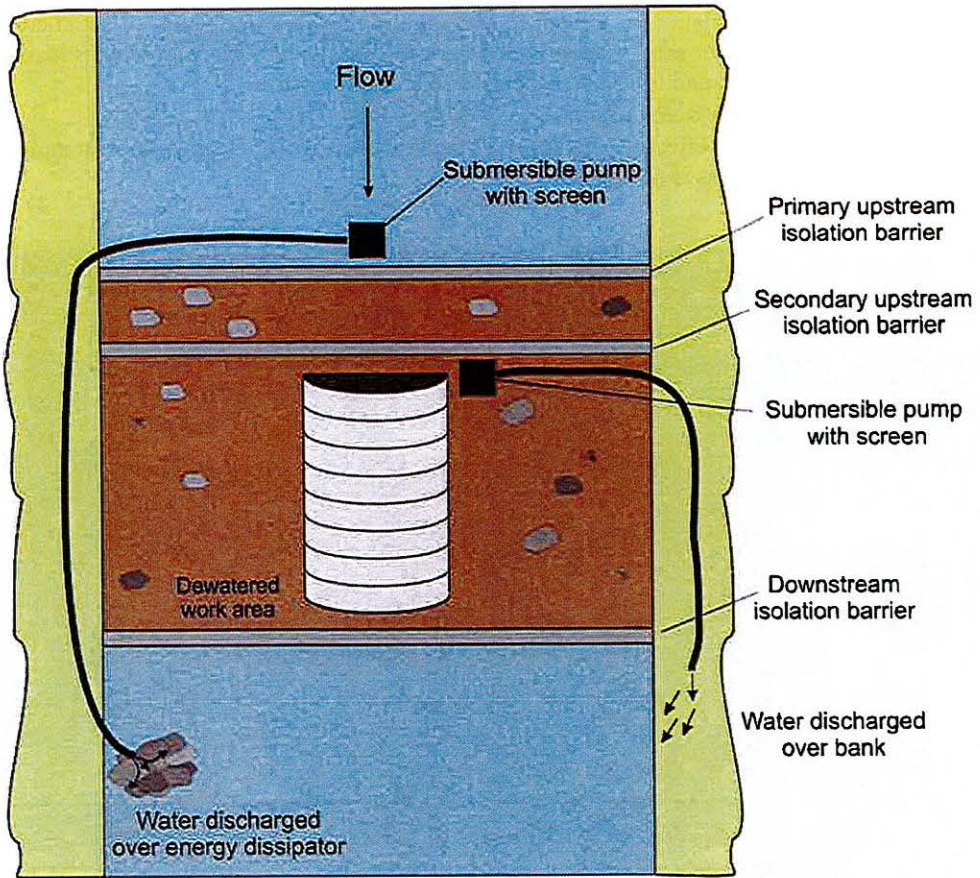


Figure 3. Isolation and Bypass Diversion when Working In-Water

Timing Windows

Figure 1 and Tables 1 and 2 can be used to determine the Restricted Activity period for the drain based on its classification. Note: Timing windows identified on Conservation Authority permits or Ministry of Natural Resources (Government of Ontario) work permits may differ and take precedence.



Figure 1. Ontario's Northern and Southern Region boundaries for determining application of restricted activity timing windows.

Table 1. Restricted Activity timing windows for the protection of spawning fish and developing eggs and fry in the Northern Region. Dates represent when work should be avoided.

DRAIN TYPE	RESTRICTED ACTIVITY PERIOD
A	SEPTEMBER 1 TO JULY 15
B	SEPTEMBER 1 TO JULY 15
C	APRIL 1 TO JULY 15
D	SEPTEMBER 1 TO JULY 15
E	APRIL 1 TO JULY 15

Table 2. Restricted Activity timing windows for the protection of spawning fish and developing eggs and fry in the Southern Region. Dates represent when work should be avoided.

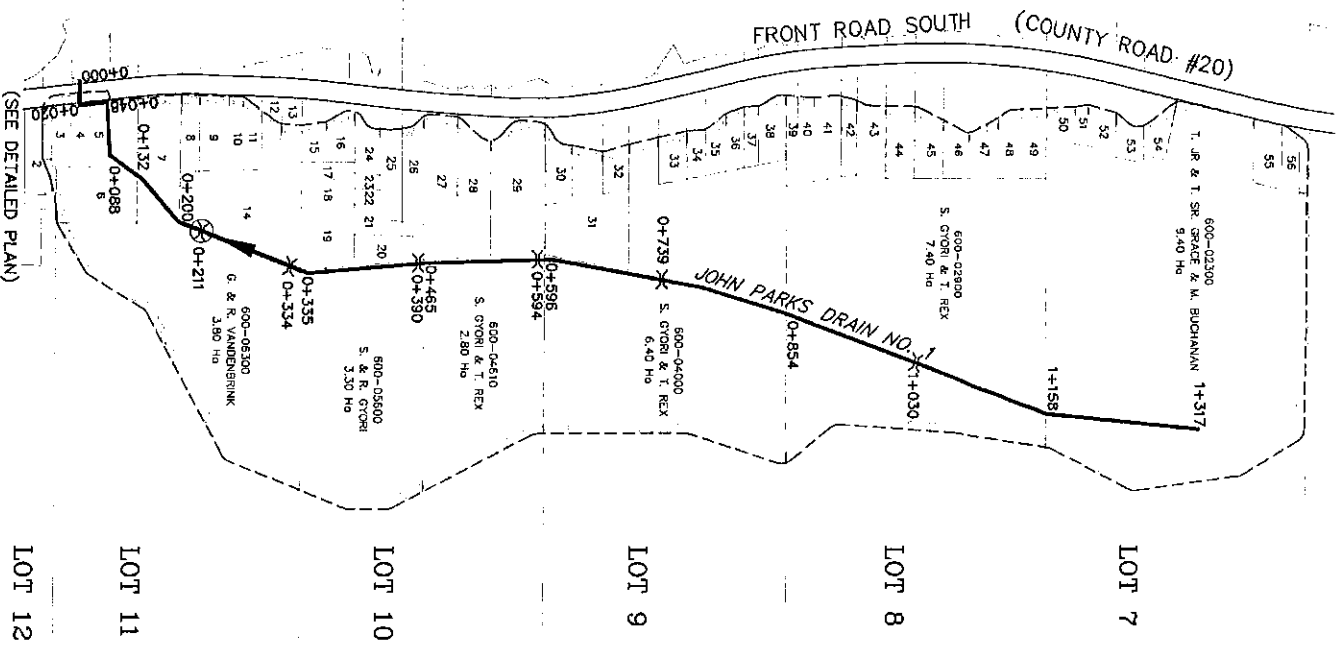
DRAIN TYPE	RESTRICTED ACTIVITY PERIOD
A	SEPTEMBER 15 TO JULY 15
B	MARCH 15 TO JULY 15
C	MARCH 15 TO JULY 15
D	OCTOBER 1 TO JULY 15
E	MARCH 15 TO JULY 15

Standard Measures to Avoid Causing Serious Harm to Fish

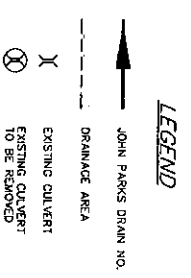
When implementing a culvert removal project in a municipal drain, the *Fisheries Act* still requires an individual/company to ensure they avoid causing *serious harm to fish* during any activities in or near water. The following advice will help one avoid causing harm and comply with the *Act* (for additional information see <http://www.dfo-mpo.gc.ca/pnw-ppe/measures-mesures/measures-mesures-eng.html>).

1. Schedule work to avoid wet, windy and rainy periods that may increase erosion and sedimentation.
2. Whenever possible, operate machinery on land above the high water mark or on ice and in a manner that minimizes disturbance to the banks and bed of the municipal drain.
 - Ensure that machinery arrives on site in a clean condition and is maintained free of fluid leaks.
 - Limit machinery fording of the municipal drain to a one-time event (i.e., over and back), and only if no alternative crossing method is available. If repeated crossings of the municipal drain are required, construct a temporary crossing structure.
 - 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.
 - Keep an emergency spill kit on site in case of fluid leaks or spills from machinery.
3. Install effective sediment and erosion control measures before starting work to prevent sediment from entering the municipal drain. Inspect them regularly during the course of construction and make all necessary repairs if any damage occurs.
4. 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 municipal drain and runoff water is clear.
5. Undertake all in-water activities in isolation of open or flowing water while maintaining the natural flow of water downstream and avoid introducing sediment into the municipal drain.
6. Ensure applicable permits for relocating fish are obtained and relocate any fish that become trapped in isolated pools or stranded in newly flooded areas to the main channel of the watercourse.
7. Ensure that the water that is being pumped/diverted from the site is filtered (sediment remove) prior to being released (e.g. pumping/diversion of water to a vegetated area).
8. Implement 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.
9. 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.
10. 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.
11. Remove all construction materials from site upon project completion.

CONCESSION 1

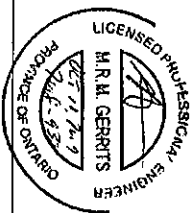


(SEE DETAILED PLAN)



OWNER INDEX NUMBER

- 1. 600-07500 E. & P. REAUME 0.01 Ha
- 2. 600-07200 2527884 ONTARIO INC. 0.02 Ha
- 3. 600-07200 2827384 ONTARIO INC. 0.14 Ha
- 4. 600-07201 2827384 ONTARIO INC. 0.14 Ha
- 5. 600-07200 F. & C. STORINO 0.14 Ha
- 6. 600-07100 T. & G. SILVERO 0.73 Ha
- 7. 600-07100 T. & G. SILVERO 0.73 Ha
- 8. 600-06900 R. & C. SCOTT 0.16 Ha
- 9. 600-06800 M. SOULLIER 0.24 Ha
- 10. 600-05700 E. & E. WADSWORTH 0.12 Ha
- 11. 600-05600 G. MICHAEL & J. MELAM 0.05 Ha
- 12. 600-05600 G. MICHAEL & J. MELAM 0.05 Ha
- 13. 600-05600 R. LEBLANC 0.03 Ha
- 14. 600-05400 B. & S. SUTTS 1.18 Ha
- 15. 600-05400 B. & S. SUTTS 1.18 Ha
- 16. 600-05000 G. & A. ESCOFFIER 0.15 Ha
- 17. 600-05000 G. & A. ESCOFFIER 0.15 Ha
- 18. 600-05000 W. & S. METCALFE 0.16 Ha
- 19. 600-05000 W. & S. METCALFE 0.16 Ha
- 20. 600-05100 S. BERNIK 0.26 Ha
- 21. 600-05400 R. & C. POLDET 0.15 Ha
- 22. 600-05300 W. PARE 0.05 Ha
- 23. 600-05300 N. & M. CHUPE 0.04 Ha
- 24. 600-05300 N. & M. CHUPE 0.04 Ha
- 25. 600-05000 R. & C. OCEANIC 0.22 Ha
- 26. 600-04900 D. & R. OCEANIC 0.22 Ha
- 27. 600-04900 H. & R. BROUGHT 0.24 Ha
- 28. 600-04900 H. & R. BROUGHT 0.24 Ha
- 29. 600-04400 R. LEVACK & J. BASTIEN 0.80 Ha
- 30. 600-04300 COLLISON DESIGN-BUILD INC. 0.18 Ha
- 31. 600-04200 J. & L. NEUFELD 0.76 Ha
- 32. 600-04100 C. BILMANTER 0.13 Ha
- 33. 600-03900 S. & T. WATERS 0.10 Ha
- 34. 600-03900 S. & T. WATERS 0.10 Ha
- 35. 600-03700 L. DIPENDOMENICO 0.12 Ha
- 36. 600-03700 L. DIPENDOMENICO 0.12 Ha
- 37. 600-03500 R. PARE 0.13 Ha
- 38. 600-03500 R. PARE 0.13 Ha
- 39. 600-03400 S. & A. COLEMAN 0.21 Ha
- 40. 600-03400 S. & A. COLEMAN 0.21 Ha
- 41. 600-03200 C. & A. SALOON 0.16 Ha
- 42. 600-03200 C. & A. SALOON 0.16 Ha
- 43. 600-03100 H. LOWELL 0.25 Ha
- 44. 600-02900 H. & C. BALL 0.12 Ha
- 45. 600-02900 H. & C. BALL 0.12 Ha
- 46. 600-02955 A. & G. PIZZUTO 0.23 Ha
- 47. 600-02955 A. & G. PIZZUTO 0.23 Ha
- 48. 600-02855 M. & K. BERNIK 0.19 Ha
- 49. 600-02855 M. & K. BERNIK 0.19 Ha
- 50. 600-02855 M. & K. BERNIK 0.19 Ha
- 51. 600-02700 G. & V. MAILLOUX 0.07 Ha
- 52. 600-02700 G. & V. MAILLOUX 0.07 Ha
- 53. 600-02400 J. HUNT 0.12 Ha
- 54. 600-02200 J. & L. GOODCHERD 0.20 Ha
- 55. 600-02200 J. & L. GOODCHERD 0.20 Ha
- 56. 600-02100 M. & M. PILTON 0.18 Ha



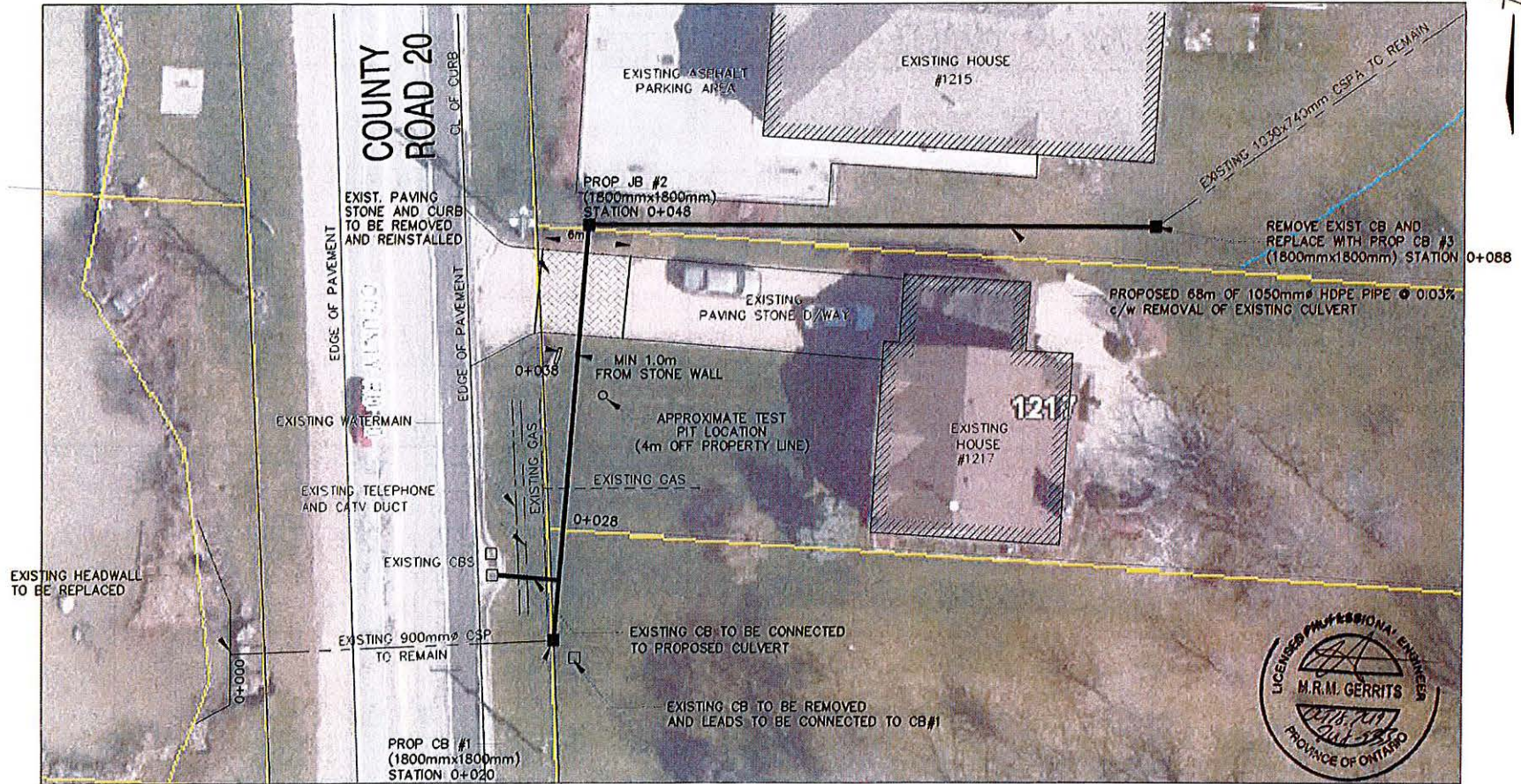
2218 Oshwegate Road
 Peterborough, Ontario, Canada
 Phone: (519) 982-2033 Fax: (519) 982-2233
 PROJECT No. 2018-833

APPROVED	NO.	REVISIONS	DATE	BY
M. GERRITS				
CHECKED	1	FINAL REPORT	OCT. 18, 2019	JW
DRAWN	0	SCALE 1:5000		
		SCALE 50 100 150m		

TOWN of AMHERSTBURG
 JOHN PARKS DRAIN NO.1
 PLAN OF 5

GENERAL NOTES

- ALIGNMENT MAY CHANGE TO ACCOMMODATE CONFLICTS WITH UTILITIES, SEPTIC, ETC.



R Dobbin
Engineering Inc.

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

DRAWING NAME:
John Parks Drain No. 1 Detailed Plan

PROJECT No.
2018-933

APPROVED	NO.	REVISIONS	DATE	BY
M. GERRITS				
CHECKED	1	FINAL REPORT	OCT. 18, 2019	JW
B. VAN RUITENBURG				
DRAWN	SCALE 1:300			
J. WARNER	0 2 4 6m			

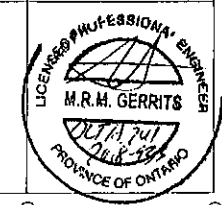
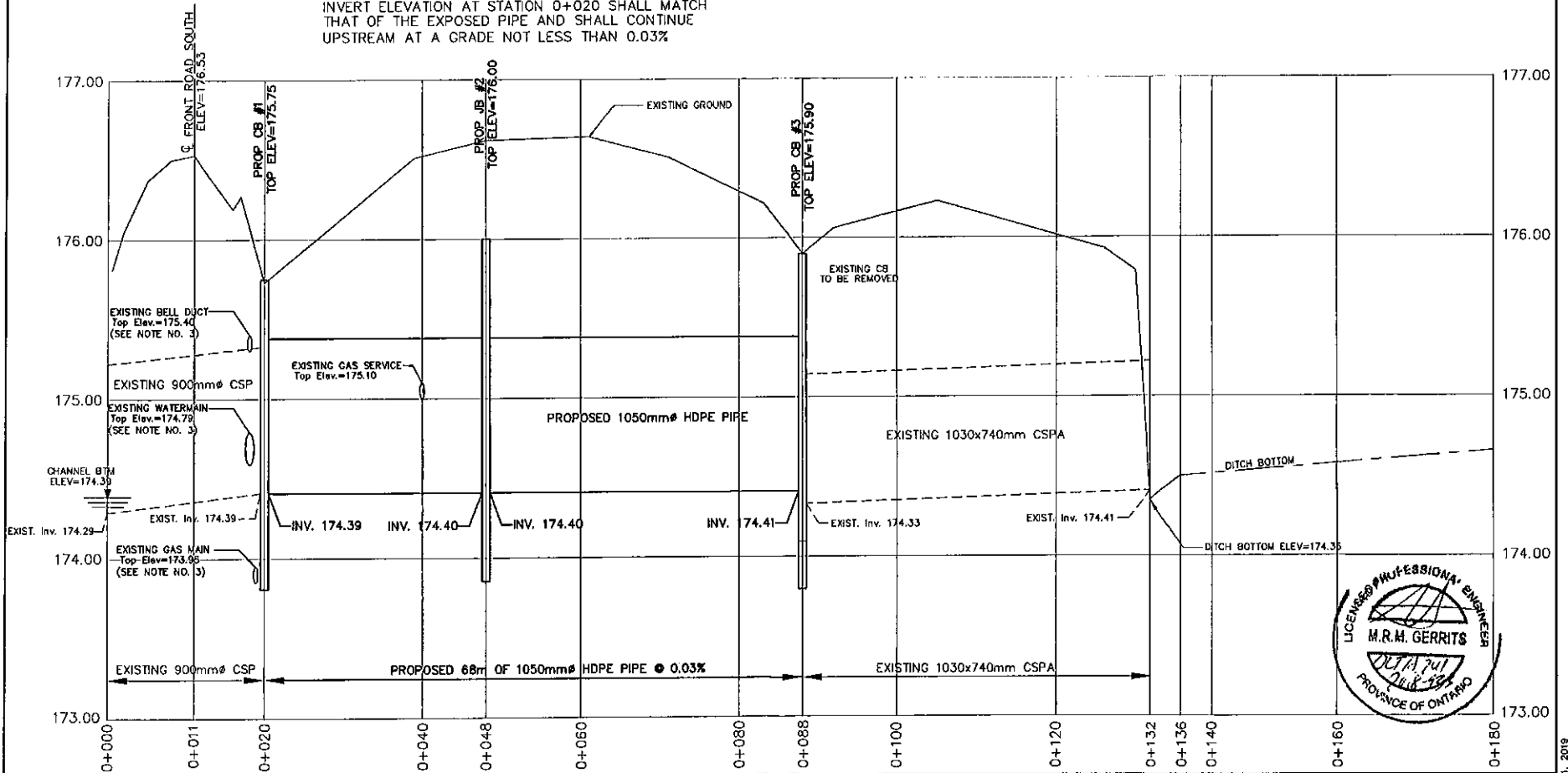
TOWN of AMHERSTBURG
JOHN PARKS DRAIN NO. 1
DETAILED PLAN

3
OF 5

Last Update: October 11, 2019

GENERAL NOTES

1. BENCHMARK No.1 ELEV. 177.35
TOP SPINDLE OF FIRE HYDRANT
AT #1205 FRONT ROAD SOUTH
2. EXISTING INVERT ELEVATIONS ARE AN APPROXIMATE
AND SHALL BE CONFIRMED PRIOR TO CONSTRUCTION.
IF THE INVERTS VARY COMPARED TO THOSE SHOWN, THE
DRAINAGE SUPERINTENDENT OR ENGINEER SHALL BE
CONSULTED BEFORE CONSTRUCTION. THE PROPOSED
INVERT ELEVATION AT STATION 0+020 SHALL MATCH
THAT OF THE EXPOSED PIPE AND SHALL CONTINUE
UPSTREAM AT A GRADE NOT LESS THAN 0.03%
3. UTILITY LOCATES IDENTIFIED ON THE PROFILE
WERE SHOT 10m NORTH OF THE ROAD CROSSING.
THEIR ELEVATION MAY DIFFER AT THE ACTUAL
LOCATION OF THE ROAD CROSSING.



4218 Oil Heritage Road
Petrolia Ontario, N0N 1R0
Phone: (519) 882-0332 Fax: (519) 882-2233

DRAWING NAME:
John Parks Drain No. 1 Profile

PROJECT No.
2018-933

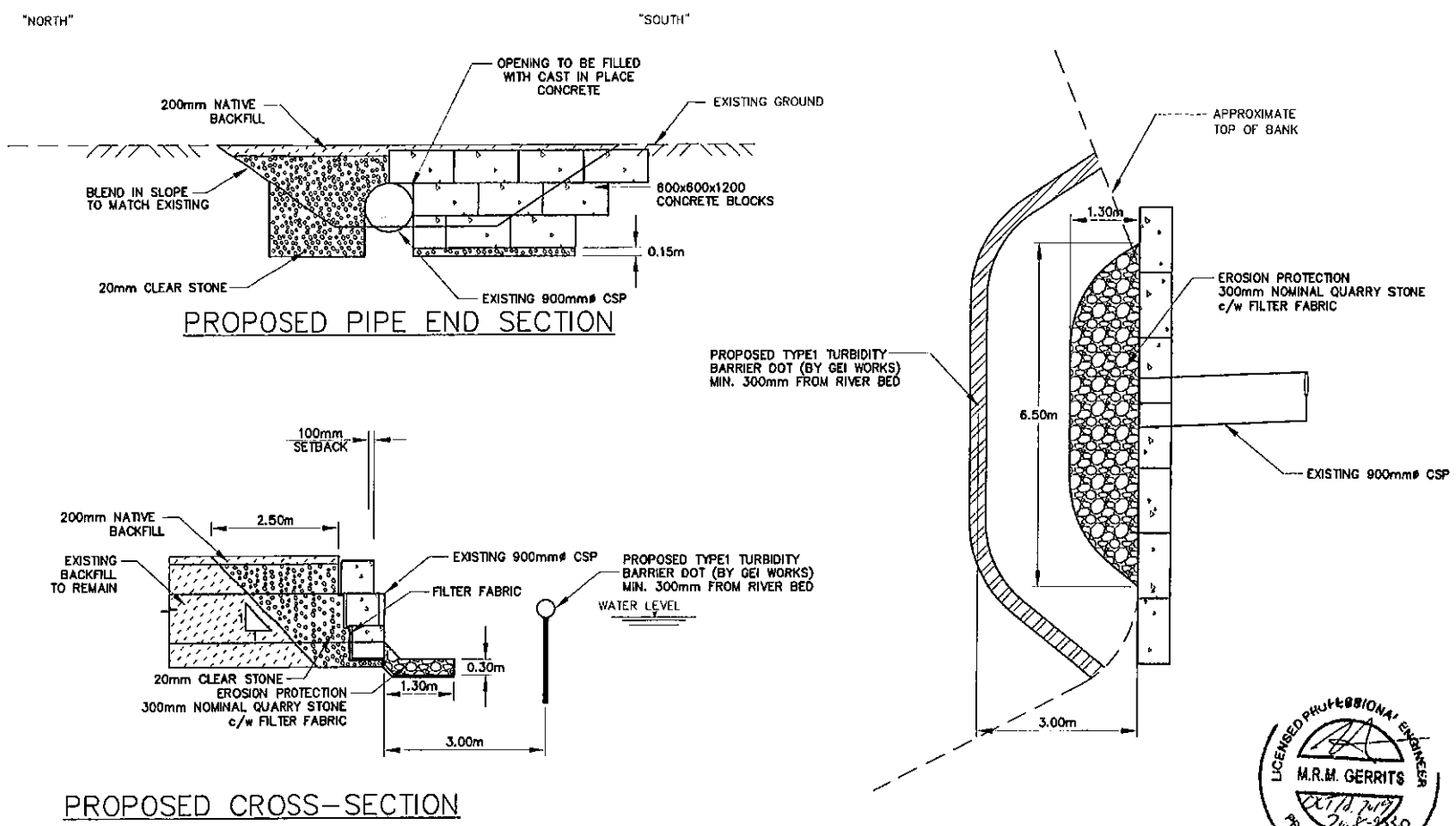
APPROVED	NO.	REVISIONS	DATE	BY
M. GERRITS				
CHECKED	1	FINAL REPORT	OCT. 18, 2019	JW
B. VAN RUITENBURG				
DRAWN				
J. WARNER				

SCALE: 1:500
0 5 10 15m

TOWN of AMHERSTBURG
JOHN PARKS DRAIN NO.1
PROFILE

4
OF 5

Last Updated: October 11, 2019



R Dobbin
Engineering Inc.

4218 Oil Heritage Road
Petrolia Ontario, N0M 1S0
Phone: (519) 882-0032 Fax: (519) 882-2233

DRAWING NAME:
John Parks Drain No. 1 Outlet Detail

PROJECT No.
2018-933

APPROVED	NO.	REVISIONS	DATE	BY
M. GERRITS				
CHECKED	1	FINAL REPORT	OCT. 18, 2019	JW
B. VAN RUITENBURG				
DRAWN				
J. WARNER				

SCALE 1:75

0 2m

TOWN of AMHERSTBURG
JOHN PARKS DRAIN NO. 1
OUTLET DETAIL

5
OF 5

Last Update: October 18, 2019

November 7, 2019

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

Gentlemen and Mesdames:

**Re: John Parks No. 1 Drain Improvements
(Recommendations for the December 2, 2019 Court of Revision)**

Please find attached the following information for consideration at the December 2, 2019 Court of Revision for the above noted drain. R. Dobbin Engineering Inc. reviewed the survey data for the M. & M. Pillon and J. & L. Goodchild properties and have concluded the survey catchment area was correct. However, after discussions with J. Goodchild and downstream agricultural Landowner it became apparent that significant tile drainage improvements to the Goodchild property were completed to direct subsurface water away from the lot and as such the equivalent ha for the property has been adjusted accordingly and are attached to this letter.

The revisions include the following:

- Schedule of Assessment
- Schedule of Maintenance No. 1

All other information included in the October 18, 2019 drain report remain unchanged. If you have any questions about the revisions please contact me.

Yours truly,



Nov 7 2019

Michael Gerrits, P. Eng.
R. Dobbin Engineering Inc.



John Parks Drain No. 1
Town of Amherstburg
October 18, 2019

SCHEDULE OF ASSESSMENT

Recommended for Consideration at the December 2, 2019 Court of Revision

Conc.	Lot or Part	Affected Hect.	Roll No.	Owner	Special Benefit	Benefit	Outlet	Total
3. Municipal Lands								
	County Road 20 (Front Street)	0.14		County of Essex	5,827	15,413	246	21,487
	Watermian			Town of Amherstburg	1,668	-	-	1,668
					<u>7,495</u>	<u>15,413</u>	<u>246</u>	<u>23,155</u>
				Total Special Benefit	7,495			
				Total Benefit	15,413			
				Total Outlet		246		
				Total - Municipal Lands	<u>7,495</u>	<u>15,413</u>	<u>246</u>	<u>23,155</u>
4. Privately-Owned Non-Agricultural Lands								
1	Pt. Lot 12	0.01	600-07500	E. & P. Reaume	-	-	7	7
	Pt. Lot 12	0.02	600-07400	2627884 Ontario Inc.	-	-	15	15
	Pt. Lots 11 & 12	0.18	600-07300	2627884 Ontario Inc.	-	-	134	134
	Pt. Lot 11	-	600-07250	2627884 Ontario Inc.	-	-	-	-
	Pt. Lot 11	0.14	600-07201	2627884 Ontario Inc.	-	3,590	104	3,694
	Pt. Lot 11	0.14	600-07200	F. & G. Storino	41,818	8,197	141	50,156
	Pt. Lot 11	0.73	600-07100	F. & G. Storino	15,312	-	738	16,050
	Pt. Lot 11	0.62	600-07000	T. & G. Gillen	-	-	654	654
	Pt. Lot 11	0.16	600-06900	R. & C. Scott	-	-	230	230
	Pt. Lot 11	0.24	600-06800	M. Soullier	-	-	345	345
	Pt. Lot 11	0.12	600-06700	E. & E. Mooney	-	-	172	172
	Pt. Lot 11	0.14	600-06600	J. Neufeld	-	-	201	201
	Pt. Lot 11	0.05	600-06501	G. Michael & J. McLam	-	-	72	72
	Pt. Lot 11	0.03	600-06500	R. Leblanc	-	-	43	43
	Pt. Lot 11	1.19	600-06400	B. & S. Sutts	-	-	1,274	1,274
	Pt. Lot 10	0.11	600-06100	B. Wilder & J. Kotsis-Wilder	-	-	164	164

Conc.	Lot or Part	Affected Hect.	Roll No.	Owner	Special Benefit	Benefit	Outlet	Total
	Pt. Lot 10	0.15	600-06000	G. & A. Esposito	-	-	223	223
	Pt. Lot 10	0.10	600-05900	R. & S. Metcalfe	-	-	149	149
	Pt. Lot 10	0.16	600-05800	W. & S. Gibb	-	-	238	238
	Pt. Lot 10	0.36	600-05700	S. Bernyk	-	-	517	517
	Pt. Lot 10	0.20	600-05500	J. Brown	-	-	287	287
	Pt. Lot 10	0.15	600-05400	R. & C. Pouget	-	-	223	223
	Pt. Lot 10	0.05	600-05300	W. Pare	-	-	74	74
	Pt. Lot 10	0.04	600-05200	J. & M. Crump	-	-	60	60
	Pt. Lot 10	0.13	600-05100	N. Gyorgy	-	-	194	194
	Pt. Lot 10	0.22	600-05000	R. Giegerich	-	-	328	328
	Pt. Lot 10	0.23	600-04900	D. & R. Delbert	-	-	343	343
	Pt. Lot 10	0.54	600-04800	H. & R. Brough	-	-	776	776
	Pt. Lot 10	0.47	600-04620	M. & D. Gobbato & T. Berlasty	-	-	676	676
	Pt. Lot 10	0.80	600-04400	R. Levack & L. Bastien	-	-	1,150	1,150
	Pt. Lot 9	0.18	600-04300	Coulson Design-Build Inc.	-	-	274	274
	Pt. Lot 9	0.76	600-04200	J. & L Neufeld	-	-	1,280	1,280
	Pt. Lot 9	0.13	600-04100	J. & L Neufeld	-	-	198	198
	Pt. Lot 9	0.15	600-03900	C. Billingsley	-	-	228	228
	Pt. Lot 9	0.10	600-03800	S. & T. Waters	-	-	152	152
	Pt. Lot 9	0.12	600-03700	L. Dipierdomenico	-	-	183	183
	Pt. Lot 9	0.13	600-03600	R. Pare	-	-	198	198
	Pt. Lot 9	0.10	600-03500	J. Rice and C. Armstrong-Rice	-	-	152	152
	Pt. Lot 9	0.21	600-03400	S. & A. Colasanti	-	-	319	319
	Pt. Lot 8	0.11	600-03300	R. & D. Rivard	-	-	178	178
	Pt. Lot 8	0.16	600-03200	G. & A Balogh	-	-	259	259
	Pt. Lot 8	0.25	600-03100	J. Lovell	-	-	405	405
	Pt. Lot 8	0.12	600-03000	H. & M. Walschots	-	-	194	194
	Pt. Lot 8	0.24	600-02965	L. & N. Bieszk	-	-	389	389
	Pt. Lot 8	0.23	600-02955	A. & G. Pizzuto	-	-	373	373
	Pt. Lot 8	0.21	600-02945	R. & K. Spry	-	-	340	340
	Pt. Lot 8	0.17	600-02935	S. & A. Bazinski	-	-	275	275
	Pt. Lot 8	0.17	600-02925	M. Gobbato	-	-	275	275
	Pt. Lot 8	0.19	600-02916	J. Hodges & L. Lawrence	-	-	308	308
	Pt. Lot 8	0.19	600-02912	R. & C. Ball	-	-	308	308

Conc.	Lot or Part	Affected Hect.	Roll No.	Owner	Special Benefit	Benefit	Outlet	Total
	Pt. Lot 7	0.10	600-02800	D. & D. McWhinnie	-	-	162	162
	Pt. Lot 7	0.07	600-02700	G. & M. Mailloux	-	-	105	105
	Pt. Lot 7	0.14	600-02500	M. Mailloux	-	-	227	227
	Pt. Lot 7	0.12	600-02400	J. Hunt	-	-	194	194
	Pt. Lot 7	0.14	600-02301	J. & R. Thrasher	-	-	227	227
	Pt. Lot 7	*0.20	600-02200	J. & L. Goodchild	-	-	162	162
	Pt. Lot 7	0.18	600-02100	M. & M. Pillon	-	-	292	292
<i>* Denotes Surface Water Only</i>					57,129	11,787	17,190	86,107
Total Special Benefit					57,129			
Total Benefit					11,787			
Total Outlet					17,190			
Total - Privately-Owned Non-Agricultural Lands					86,107			
5. Privately-Owned Agricultural Lands								
1	Pt. Lot 11	3.8	600-06300	G. & R. Vandenbrink	-	750	2,672	3,422
	Pt. Lots 10 & 11	3.3	600-05600	S. & R. Gyori	-	750	2,372	3,122
	Pt. Lot 10	2.8	600-04610	S. Gyori & T. Rex	-	750	2,085	2,835
	Pt. Lot 9	6.4	600-04000	S. Gyori & T. Rex	-	750	4,767	5,517
	Pt. Lot 8	7.4	600-02900	S. Gyori & T. Rex	-	750	5,821	6,571
	Pt. Lot 7	9.4	600-02300	T.(Jr.) & T.(Sr.) Grace/M. Buchanan	-	-	7,860	7,860
					-	3,750	25,577	29,327
Total Special Benefit					-			
Total Benefit					3,750			
Total Outlet					25,577			
Total - Privately-Owned Agricultural Lands					29,327			

Conc.	Lot or Part	Affected Hect.	Roll No.	Owner	Special Benefit	Benefit	Outlet	Total
6. <u>Special Non-Prorateable Assessments</u>								
	Gas			Union Gas	1,668	-	-	1,668
	Telephone			Bell Telephone	1,668	-	-	1,668
	Fiber Optic Cable			Cogeco	1,668	-	-	1,668
	Hydro			Hydro One	1,668	-	-	1,668
					<u>6,672</u>	-	-	<u>6,672</u>
				Total Special Benefit	6,672			
				Total Benefit	-			
				Total Outlet	-			
				Total - Special Non-Prorateable Assessments	<u>6,672</u>			
				Total - Municipal Lands	23,155			
				Total - Privately-Owned Non-Agricultural Lands	86,107			
				Total - Privately-Owned Agricultural Lands	29,327			
				Total - Special Non-Prorateable Assessments	<u>6,672</u>			
				Total Assessment	<u>\$145,260</u>			

John Parks Drain No. 1
Town of Amherstburg
October 18, 2019

SCHEDULE OF MAINTENANCE NO. 1

Recommended for Consideration at the December 2, 2019 Court of Revision

For maintaining the open section of the John Parks Drain between Station 0+132 and Station 1+317

Conc.	Lot or Part	Affected Hect.	Roll No.	Owner	Benefit	Outlet	Total	Equivalent Ha.
4. Privately-Owned Non-Agricultural Lands								
	Pt. Lot 11	0.62	600-07000	T. & G. Gillen	558	-	558	0.9
	Pt. Lot 11	0.16	600-06900	R. & C. Scott	-	8	8	0.3
	Pt. Lot 11	0.24	600-06800	M. Soullier	-	12	12	0.5
	Pt. Lot 11	0.12	600-06700	E. & E. Mooney	-	6	6	0.2
	Pt. Lot 11	0.14	600-06600	J. Neufeld	-	7	7	0.3
	Pt. Lot 11	0.05	600-06501	G. Michael & J. McLam	-	2	2	0.1
	Pt. Lot 11	0.03	600-06500	R. Leblanc	-	1	1	0.1
	Pt. Lot 11	1.19	600-06400	B. & S. Sutts	612	13	625	1.8
	Pt. Lot 10	0.11	600-06100	B. Wilder & J. Kotsis-Wilder	-	18	18	0.2
	Pt. Lot 10	0.15	600-06000	G. & A. Esposito	-	25	25	0.3
	Pt. Lot 10	0.10	600-05900	R. & S. Metcalfe	-	17	17	0.2
	Pt. Lot 10	0.16	600-05800	W. & S. Gibb	-	27	27	0.3
	Pt. Lot 10	0.36	600-05700	S. Bernyk	229	18	246	0.7
	Pt. Lot 10	0.20	600-05500	J. Brown	229	10	238	0.4
	Pt. Lot 10	0.15	600-05400	R. & C. Pouget	-	25	25	0.3
	Pt. Lot 10	0.05	600-05300	W. Pare	-	8	8	0.1
	Pt. Lot 10	0.04	600-05200	J. & M. Crump	-	7	7	0.1
	Pt. Lot 10	0.13	600-05100	N. Gyorgy	-	22	22	0.3
	Pt. Lot 10	0.22	600-05000	R. Giegerich	-	37	37	0.4
	Pt. Lot 10	0.23	600-04900	D. & R. Delbert	-	38	38	0.5
	Pt. Lot 10	0.54	600-04800	H. & R. Brough	229	26	255	1.1
	Pt. Lot 10	0.47	600-04620	M. & D. Gobbato & T. Berlasty	229	23	251	0.9

Conc.	Lot or Part	Affected Hect.	Roll No.	Owner	Benefit	Outlet	Total	Equivalent Ha.
	Pt. Lot 10	0.80	600-04400	R. Levack & L. Bastien	229	39	268	1.6
	Pt. Lot 9	0.18	600-04300	Coulson Design-Build Inc.	-	32	32	0.4
	Pt. Lot 9	0.76	600-04200	J. & L Neufeld	594	28	622	1.1
	Pt. Lot 9	0.13	600-04100	J. & L Neufeld	-	23	23	0.3
	Pt. Lot 9	0.15	600-03900	C. Billingsley	-	26	26	0.3
	Pt. Lot 9	0.10	600-03800	S. & T. Waters	-	18	18	0.2
	Pt. Lot 9	0.12	600-03700	L. Dipierdomenico	-	21	21	0.2
	Pt. Lot 9	0.13	600-03600	R. Pare	-	23	23	0.3
	Pt. Lot 9	0.10	600-03500	J. Rice and C. Armstrong-Rice	-	18	18	0.2
	Pt. Lot 9	0.21	600-03400	S. & A. Colasanti	-	37	37	0.4
	Pt. Lot 8	0.11	600-03300	R. & D. Rivard	-	46	46	0.2
	Pt. Lot 8	0.16	600-03200	G. & A Balogh	-	66	66	0.3
	Pt. Lot 8	0.25	600-03100	J. Lovell	-	103	103	0.5
	Pt. Lot 8	0.12	600-03000	H. & M. Walschots	-	50	50	0.2
	Pt. Lot 8	0.24	600-02965	L. & N. Bieszk	-	99	99	0.5
	Pt. Lot 8	0.23	600-02955	A. & G. Pizzuto	-	95	95	0.5
	Pt. Lot 8	0.21	600-02945	R. & K. Spry	-	87	87	0.4
	Pt. Lot 8	0.17	600-02935	S. & A. Bazinski	-	70	70	0.3
	Pt. Lot 8	0.17	600-02925	M. Gobbato	-	70	70	0.3
	Pt. Lot 8	0.19	600-02916	J. Hodges & L. Lawrence	-	79	79	0.4
	Pt. Lot 8	0.19	600-02912	R. & C. Ball	-	79	79	0.4
	Pt. Lot 7	0.10	600-02800	D. & D. McWhinnie	-	159	159	0.2
	Pt. Lot 7	0.07	600-02700	G. & M. Mailloux	-	103	103	0.1
	Pt. Lot 7	0.14	600-02500	M. Mailloux	-	222	222	0.3
	Pt. Lot 7	0.12	600-02400	J. Hunt	-	190	190	0.2
	Pt. Lot 7	0.14	600-02301	J. & R. Thrasher	-	222	222	0.3
	Pt. Lot 7	*0.20	600-02200	J. & L. Goodchild	-	159	159	0.2
	Pt. Lot 7	0.18	600-02100	M. & M. Pillon	-	285	285	0.4
					2,907	2,796	5,703	
				Total Benefit	2,907			
				Total Outlet	2,796			
				Total - Privately-Owned Non-Agricultural Lands	5,703			

Conc.	Lot or Part	Affected Hect.	Roll No.	Owner	Benefit	Outlet	Total	Equivalent Ha.
<u>5. Privately-Owned Agricultural Lands</u>								
1	Pt. Lot 11	3.8	600-06300	G. & R. Vandenbrink	612	22	634	3.8
	Pt. Lots 10 & 11	3.3	600-05600	S. & R. Gyori	572	80	652	3.3
	Pt. Lot 10	2.8	600-04610	S. Gyori & T. Rex	572	68	640	2.8
	Pt. Lot 9	6.4	600-04000	S. Gyori & T. Rex	1,782	533	2,315	6.4
	Pt. Lot 8	7.4	600-02900	S. Gyori & T. Rex	2,700	1,088	3,788	7.4
	Pt. Lot 7	9.4	600-02300	T.(Jr.) & T.(Sr.) Grace/M. Buchanan	1,485	2,498	3,983	9.4
					<u>7,722</u>	<u>4,290</u>	<u>12,012</u>	
				Total Benefit	7,722			
				Total Outlet	4,290			
				Total - Privately-Owned Agricultural Lands	<u>12,012</u>			
				Total - Privately-Owned Non-Agricultural Lands	5,703			
				Total - Privately-Owned Agricultural Lands	<u>12,012</u>			
				Total Assessment	\$ 17,715			