



Changes in Assessment: Reid Drain – West Branch and 9th Concession Branch of the Reid Drain

Section 65 (3) and (4)

Roll No. 800-05100 and 800-05300

Municipality of Leamington

March 07, 2017

Project No. 16-126

March 07, 2017

The Municipality of Leamington
111 Erie Street North
Leamington, Ontario
N8H 2Z9

Mayor Paterson and Members of Council

Subject: Reid Drain – West Branch and 9th Concession Branch of the Reid Drain
Changes in Assessment
for Parcels with Roll No. 800-05100 and 800-05300
In the Municipality of Leamington
Our File Reference 16-126

1.0 Authorization

Pursuant to Section 65(3) and (4) of The Drainage Act, 1990 (the Act), Chapter D.17, as amended 2010, the Municipality of Leamington appointed the firm of Baird AE to prepare a report for the Value of Benefit and Outlet Liability adjustments for parcels with Roll No. 800-05100 and 800-05300 owned by 2492309 Ontario Ltd.

This appointment considers “the nature or extent of the use of a drainage works by land assessed for the drainage works is subsequently altered” which is in accordance with Section 65(3) of the Act.

2.0 Purpose of the Report and Current Drainage Reports

2492309 Ontario Ltd. intends to construct greenhouses on lands with Roll No. 800-05100 and 800-05300. The proposed development will increase flow volumes entering the Reid Drain - West Branch. The current drainage report on file for the 11th Concession Branch, Reid Drain, West Branch of Reid Drain and Reid Drain Outlet is dated June 12, 1978 and was prepared by William J. Settingington, P.Eng.

As part of the development, the subject lands will be disconnected from the 9th Concession Branch of the Reid Drain in accordance with Section 65 (4) of the Act. The current report on file for the Reid Drain – 9th Concession Branch is dated November 27, 1980 and was prepared by William J. Settingington, P.Eng.

We have determined the areas which are currently assessed into the Reid Drain - West Branch and the 9th Concession Branch of the Reid Drain:

Roll No.	Reid Drain – West Branch		9 th Concession Branch of the Reid Drain	
	Owned (ha)	Affected (ha)	Owned (ha)	Affected (ha)
800-05100	20.6	20.6	20.6	12.2
800-05300	17.9	17.9	17.9	6.6
Total Area	38.5	38.5	38.5	18.2

Plans found in Appendix A illustrate the boundaries of the affected parcels.

3.0 Existing Drainage Conditions

Overland flows generated by the subject lands currently enter the Reid Drain - West Branch directly or via the 9th Concession Branch of the Reid Drain.

4.0 Allowable Release Rates and Stormwater Management

Through review of the February 3, 2017 stormwater management report it was determined that the allowable release rate for the site was to be limited to the pre-development 1:2 year runoff rate up to and including a 1:100 year storm event. Under no circumstances should additional flows be allowed to enter the drain unless this condition is met.

Generally, the flows from the development will outlet into the Reid Drain - West Branch at the northeast corner of the property, south of the County Road 14 and Hwy 77 intersection. Providing that the outlet flow is limited to that described in the February 3, 2017 stormwater management report, we are of the opinion that the drain will not experience any negative effects due to the increased total flow volumes resulting from the development.

Therefore, we have determined that the Reid Drain - West Branch has sufficient capacity to accept the increased flow volume from the combined 38.5 ha property.

4.0 Assessment for Increased Flow Volumes

Should the Municipality be prepared to approve the increased flow volumes from the subject lands into the Reid Drain - West Branch, the Municipality may appoint an Engineer to update the assessments with said work being charged entirely to the owners of the affected lands in accordance with Section 65. (3) of the Act.

5.0 Assessment Adjustments for Increased Total Flow Volumes

We would recommend that the affected parcels have the Values of Benefit and Outlet and Total Assessment amounts adjusted to reflect the increased total flow volume from the developed parcel. The charges shall be increased based on the increased flow volumes from the already assessed portions.

Based on the existing impermeable areas, we would recommend that the following changes be made to the Schedule of Assessment for the 11th Concession Branch of the Reid Drain, Reid Drain - West Branch and Reid Drain Outlet within the current by-law and the Municipality's Maintenance Schedule:

Description	Original				Updated			
	Affected Area (ac)	Value of Benefit (\$)	Value of Outlet (\$)	Total Value (\$)	Affected Area (ac)	Value of Benefit (\$)	Value of Outlet (\$)	Total Value (\$)
2492309 Ontario Ltd. 800-05100	51.0	271	1,369	1,640	51.0	407	2,054	2,461
2492309 Ontario Ltd. 800-05300	44.4	269	1,305	1,574	44.4	404	1,958	2,362
Total Assessment – Municipality of Leamington		---	---	31,463		---	---	33,072

In accordance with Section 65 (3) of the Act, we would recommend that the values in the current Schedule of Assessment be amended as shown above.

We would further recommend that the cost of future maintenance work be assessed on a pro-rata basis in accordance with the current Schedule of Assessment and the information presented above.

6.0 Subsequent Connection Charges

We find that the area being drained to the Reid Drain – West Branch from the affected parcels will not be increased as a result of the development. Generally, an increase in parcel area results in buy-in charges to the affected parcel for the additional area being brought into the watershed based on the remaining life of any recent work carried out on the drain. We have determined that the total affected area of the two parcels before and after development remains the same at 38.5 ha. Therefore, there is no additional area that requires a subsequent connection to the drain and no buy-in charges are required. As described above, the stormwater management system must restrict the outflow to the 1:2 year pre-development rate. Providing that stormwater management is implemented as designed, the increase in flow volumes will not adversely impact the Reid Drain - West Branch.

7.0 Assessment Adjustments for Disconnection

Parcels 800-05100 and 800-05300 shall be removed from the 9th Concession Branch of the Reid Drain. We would recommend that the following changes be made to the Schedule of Assessment dated June 12, 1978 and the Municipality's Maintenance Schedule:

Description	Original				Updated			
	Affected Area (ac)	Value of Benefit (\$)	Value of Outlet (\$)	Total Value (\$)	Affected Area (ac)	Updated Value of Benefit (\$)	Updated Value of Outlet (\$)	Updated Total Value (\$)
2492309 Ontario Ltd. 800-05100	12.2	294	249	543	0	0	0	0
2492309 Ontario Ltd. 800-05300	6.6	160	208	368	0	0	0	0
Total Assessment		1,884	2,761	4,605		1,430	2,304	3,694

In accordance with Section 65 (4) of the Act, we would recommend that the values in the current Schedule of Assessment be amended as shown above for the affected parcel.

8.0 Summary and Recommendations

We have determined that the increased flow volumes for lands with Roll No. 800-05100 and 800-05300 will not adversely affect the Reid Drain - West Branch if the release rate is limited to the modified 1:2 year pre-development runoff calculated with a runoff coefficient of 0.17.

We have determined the updated Values of Benefit and Outlet for the Reid Drain – West Branch to be paid by lands with Roll No. 800-05100 and 800-05300 to represent the increase in flow volume from the developed site. The values of Benefit and Outlet have been updated for the 9th Concession Branch of the Reid Drain to reflect the disconnection of these parcels from the drain.

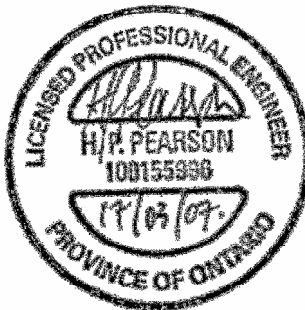
The post-development assessment coefficient used for assessment adjustments to greenhouse developments is 1.5 times that of agricultural lands.

Based on the above information, we would recommend that the Municipality of Leamington assess 100.0% of the costs associated with this report equally to lands with Roll No. 800-05100 and 800-05300.

All of which is respectfully submitted.

BAIRD AE
27 PRINCESS STREET, SUITE 102
LEAMINGTON, ONTARIO
N8H 2X8

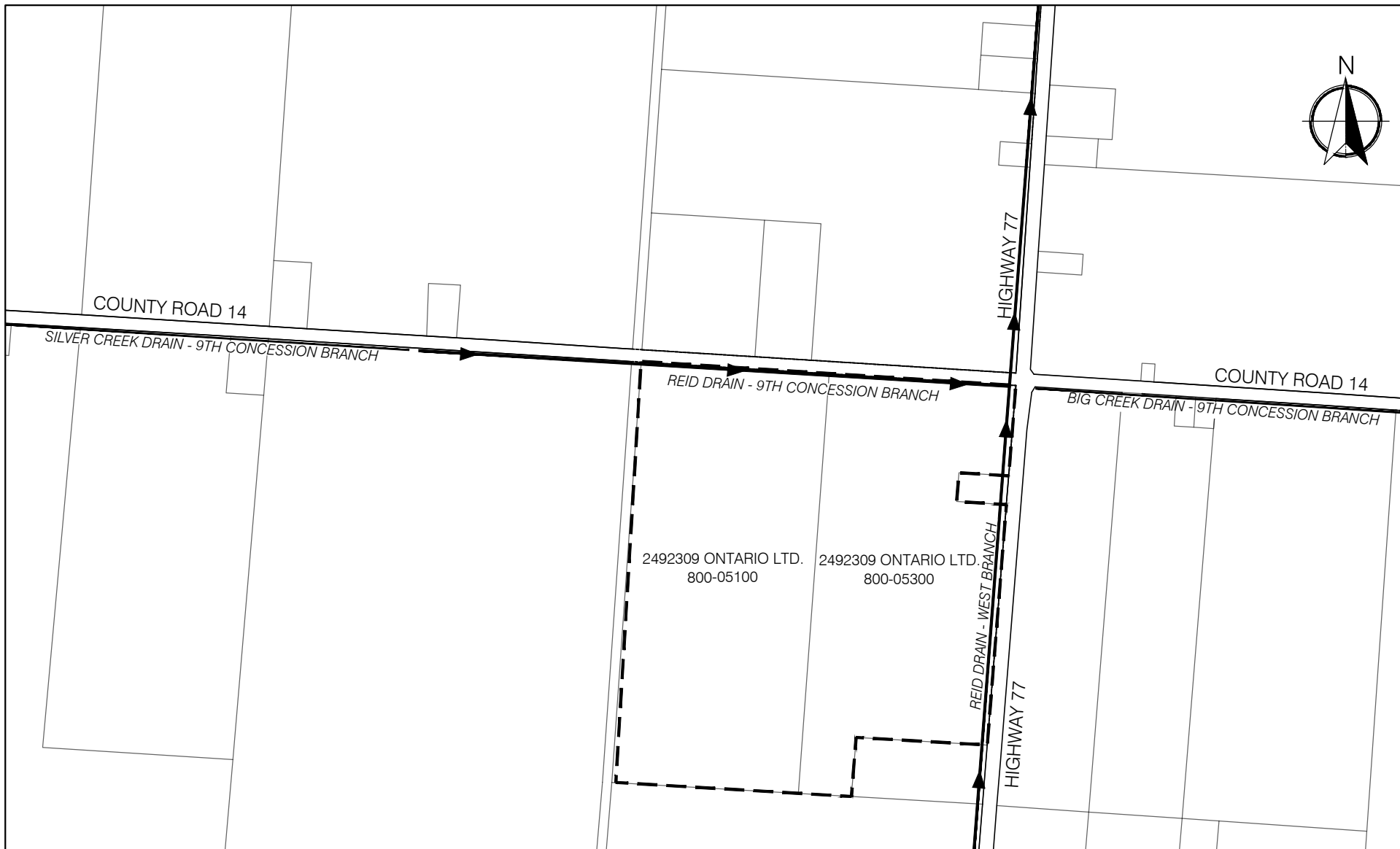

Halliday P. Pearson, P. Eng.



APPENDIX A

**DRAINAGE AREA PLAN FOR
REID DRAIN – WEST BRANCH AND
9TH CONCESSION BRANCH OF THE REID DRAIN**

PARCELS WITH ROLL NO. 800-05100 AND 800-05300



27 PRINCESS STREET, SUITE #102
LEAMINGTON, ONTARIO
N8H 2X8

1000 - 267 PELISSIER STREET,
WINDSOR, ONTARIO
N9A 4K4

PROJECT TITLE:

SECTION 65 - WEST BRANCH AND 9TH CONCESSION OF THE REID DRAIN

620 ESSEX COUNTY ROAD 14, LEAMINGTON ON.

SHEET TITLE:

DRAINAGE AREA PLAN

SCALE: N.T.S.	DATE: MAR. 07, 2017
SHEET No. : 1 OF 1	PROJECT No. : 16-126