

THE CORPORATION OF THE TOWN OF AMHERSTBURG

BY-LAW NO. 2022 – 076

**By-law to provide for a New Access Bridge over the Dufour Drain for MG
Development (McGregor) Inc. & New Maintenance Schedule of Assessment (Dufour
Drain and Branch A) based on the Drainage Report by Dillon Consulting Ltd.**

WHEREAS a request for improvement of the Dufour Drain was received under section 78 of the Drainage Act;

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

WHEREAS Council of the Corporation of the Town of Amherstburg has authorized Tim Oliver, P. Eng., to prepare a report and said engineer's report dated June 15, 2022, can be referenced as Schedule A, as attached hereto;

WHEREAS \$87,600.00 is the estimated cost of improving the drainage works;

AND WHEREAS the report was considered by the Amherstburg Drainage Board at the meeting held on July 5, 2022.

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 \$87,600.00 being the amount necessary for the improvements of the drainage works.

3. DEBENTURE(S)

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

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

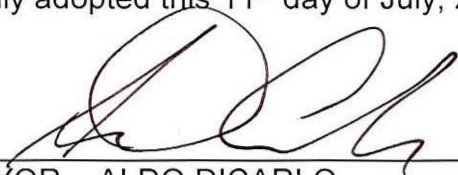
4. PAYMENT

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

- (1) A special equal annual rate sufficient to redeem the principal and interest on the debenture(s) shall be levied upon the lands and roads and shall be collected in the same manner and at the same as other taxes are collected in each year for 5 years after the passing of this by-law.

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

Read a first and second time and provisionally adopted this 11th day of July, 2022.





MAYOR – ALDO DICARLO



CLERK – VALERIE CRITCHLEY
 DEPUTY CLERK – TAMMY FOWKES

Read a third time and finally passed this 17 day of October, 2022.



MAYOR – ALDO DICARLO


CLERK – VALERIE CRITCHLEY

**DRAINAGE REPORT
FOR**

**NEW ACCESS BRIDGE OVER THE
DUFOUR DRAIN FOR MG
V
DEVELOPMENT (MCGREGOR) INC. &
NEW MAINTENANCE SCHEDULE OF
ASSESSMENT (DUFOUR DRAIN &
BRANCH A)**

TOWN OF AMHERSTBURG



15 JUNE 2022
TIM R. OLIVER, P.ENG.
FILE No. 21-2982

File No. 21-2982

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

**Drainage Report for
NEW ACCESS BRIDGE OVER THE DUFOUR DRAIN
MGV DEVELOPMENT (MCGREGOR) INC. &
NEW MAINTENANCE SCHEDULE OF ASSESSMENT
(DUFOUR DRAIN & BRANCH A)
Town of Amherstburg**

Drainage Board:

Instructions

The Municipality received a request from the landowner of properties Roll No. 430-02720 & Roll No. 430-09900 for a new access culvert (denoted as Bridge No. 6 herein) over the Dufour Drain to service a proposed residential subdivision. This request also includes new schedules of assessment for future Dufour Drain maintenance and an updated working corridor replacing same from the former 2016 report. The request for the drainage report was filed at the Municipal Office on the 23rd day of April 2021. Council accepted the request under Section 78 of the Drainage Act and on the 1st day of June 2021 appointed Dillon Consulting Limited to prepare a report.

Watershed Description

Dufour Drain

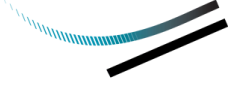
The watershed of the Dufour Drain covers a portion of Lots 6, 7 & 8, Concession 8, as well as, a small portion of Lot 7, Concession 7 within the Town of Amherstburg. The Dufour Drain serves as the outlet for agricultural and residential lands. From the Ontario Soil Survey, the dominant surficial soil within the watershed is Brookston Clay type which requires effective surface and sub-surface drainage to be productive for agriculture. The watershed area is approximately 82.30 hectares (203.42 acres) where the natural topography is flat and the design gradient of the existing drainage works is minimal. Dufour Drain was designed to convey flows from runoff generated by a 1:5 year rainfall event.

Branch A

The watershed of Branch A is within the Dufour Drain watershed, and is positioned within Lot 7, Concession 8, running adjacent to the Essex Region Conservation Foundation (ERCF) pedestrian trail and finds outlet into the upstream end of the Dufour Drain. Branch A currently serves the existing residential lands and the Cypher Systems Group Greenway trail, both of which lie to the south of Branch A, as well as some agricultural headlands to the north side of the drain. The proposed residential subdivision on the north side of Branch A (26.01 Ha) that was formerly part of the Dufour Drain



10 Fifth Street South
Chatham, Ontario
Canada
N7M 4V4
Telephone
519.354.7802
Fax
519.354.2050

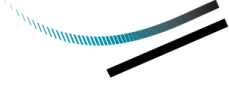


watershed is designed to outlet controlled drainage flows into the downstream portion of Branch A. These flows are to be a controlled release from a storm water detention pond designed for the new subdivision such that there will be no increased flows downstream within the Dufour Drain compared to existing conditions. The total area served by Branch A is approximately 32.90 hectares (81.33 acres). Branch A was designed to convey flows from the runoff generated by a 1:5 year rainfall event.

Drain History

The recent history of Engineers' reports for the Dufour Drain follows:

- **7 October 2016 by Tim R. Oliver, P. Eng.:** The recommended work included the establishment of Branch A and Branch B drains. The Dufour Drain and Branches were recommended to be improved such that the drains would have the hydraulic capacity to convey the flows during the 5 year return period event. This work included the replacement and improvement of one access bridge (denoted herein as Bridge No. 3) and one lawn enclosure on the main drain (denoted herein as Bridge No.5), the removal of culvert within Branch A, and the partial replacement of the Branch B County Road No. 10 road crossing. The report also recommended catch basins be installed along the ECRF trail, brushing and cleaning of the entire Dufour Drain and Branch A, as well as the establishment of a 1m wide grass buffer strip along the easterly and northerly edge of the drain where it abuts agricultural lands.
- **28 March 2013 by Tim R. Oliver, P. Eng.:** The recommended work included the construction of a new 1600 mm diameter CSP access culvert for a secondary access to the farm parcel identified as Roll No. 430-09700 (denoted herein as Bridge No. 2).
- **23 April 2010 by Tom H. Marentette, P. Eng.:** The recommended work included the construction of a new 1400 mm diameter CSP access culvert for the residential lot identified as Roll No. 430-05000 (denoted herein as Bridge No. 4).
- **26 June 2002 by Bruce D. Crozier, P. Eng.:** The recommended work included the construction of a new 1600 mm diameter CSP access culvert for the farm parcel identified as Roll No. 430-09700 (denoted herein as Bridge No. 1).
- **28 October 1991 by R. Meo, P. Eng.:** The recommended work included the construction of the Dufour Drain Extension outletting to the eastern limit of the Dufour Drain on the north side of the abandoned Canadian National Railway Tracks (denoted herein as Branch A).
- **31 May 1971 by M. Armstrong, P.Eng.:** The recommended work included the repair and improvement of the Dufour Drain, complete with brushing and a drain clean out.
- **25 August 1961 by M. Armstrong, P. Eng.:** The recommended work included improvements to the upper portion of the Dufour Drain involving a re-alignment and enclosure to move the drain onto private property at the intersection of County Road No. 10 and the 8th Concession Road. The work also included moving the upstream portion of the Dufour Drain onto private property along the south side of County Road No. 10 and east of where it crosses the said road. A new 900 mm diameter concrete culvert was placed under the railway on the north



side of the road and continued with a new 900 mm diameter CSP road culvert to connect to the relocated drain portion on the south side of the road.

On-Site Meeting

We conducted an on-site meeting on 15 February 2022. A record of the meeting is provided in Schedule 'A', which is appended hereto.

Survey

Survey of the Dufour Drain was completed in December 2012 as part of the previous 2016 report and was utilized for this report. Further examination and survey was completed in March 2021 as part of the proposed residential development.

Design Considerations

The new access bridge over the Dufour Drain (denoted as Bridge No. 6) is designed for a total upstream drainage area of approximately 42.42 hectares (104.83 acres). This area includes both the Branch A and Branch B tributary drain watersheds. The lands proposed for the new residential subdivision which will have stormwater management controls limiting flows equivalent to the 1:2 year storm event under a pre-development condition. With these controls, the same level of service is provided to the entire Dufour Drain watershed and no further improvements to the drain capacity is required as a result of this proposed residential development.

A Guide for Engineers working under the Drainage Act in Ontario, OMAFRA Publication 852 (2018) is the current reference document used by engineers carrying out work on municipal drains under the Act. For bridges over municipal roadways, a 5 to 10 year storm return period design storm is the recommended design criteria. We have applied a 10 year storm return period design criteria for the new access bridge such that flows freely pass through the culvert without backwater effects.

The 100 year return period design storm impacts were checked to confirm that water levels upstream of the culvert remain below observed ground surface elevations of existing residential properties. The minimum size of the culvert required is 1400 mm diameter and 45 meters long to fully enclose the Dufour Drain across the proposed subdivision street right-of-way. The longer culvert will facilitate future utility crossings and pedestrian trail realignment at County Road No. 10. The culvert depth is designed to provide a minimum 10% embedment of the pipe culvert below the drain bottom and the placement of the pipe to be aligned with the centerline of the Dufour Drain.

Updated Working Corridor

The previous working corridor for the Dufour Drain includes a 9 m wide corridor on the north side of the drain measured from top of bank between Station 1+188 and Station 1+298. Once the proposed development is constructed, this section of working corridor will no longer be accessible as it will be over residential lands. As such, spreading of drain spoils over the lands will also no longer be permitted and shall be required to be hauled off site to a suitable location. We therefore recommend a new working corridor be established on the south side of the Dufour Drain between Station 1+188 and Station 1+298 as specified herein.



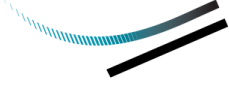
Allowances

In accordance with Section 29 and 30 of the Drainage Act, we do not anticipate any lands being damaged or taken as a result of the proposed drainage work. All lands that may be impacted by the proposed works are to be returned to original conditions as part of the work. Therefore, 'Schedule B' for Allowances has not been included in this report.

Cost Estimate

Based on our review of the history, our examination and analysis of the survey data, we recommend that the new access bridge over the Dufour Drain (Bridge No.6) be constructed as described below:

Item	Description	Amount
	Bridge No. 6	
1.	Supply and place a new 45 m long, 1400 mm diameter polymer laminated corrugated steel pipe (CSP) culvert with 125 mm x 25 mm corrugations and 2.8 mm thickness including coupler hardware and an 18 degree prefabricated polymer laminated corrugated steel pipe elbow (see Specifications).	\$32,700.00
2.	Supply and placement of clearstone 20 – 25 mm size bedding below culvert, minimum 150 mm thickness (approximately 40 tonnes).	\$2,200.00
3.	Supply and placement of Granular 'A' (crushed limestone) compacted backfill materials from the bridge invert up to the springline of the culvert (approximately 135 tonnes).	\$5,550.00
4.	Supply and placement of Granular 'A' (crushed limestone) compacted backfill material from the culvert springline up to the roadway surface (approximately 250 tonnes).	\$10,200.00
5.	Supply and placement of imported clean native backfill material from the culvert springline to the top of the drain banks beyond the roadway, for the culvert portion (approximately 300 m ³).	\$4,700.00
6.	Supply and placement of stone rip-rap minimum 300 mm thickness c/w filter cloth underlay for sloping end walls (approximately 35 m ²).	\$2,750.00
7.	Temporary sediment and erosion control measures	<u>\$500.00</u>
	SUB-TOTAL	\$58,600.00
8.	Report, expenses and incidentals	\$25,950.00
9.	Construction administration and inspection	\$2,550.00
10.	ERCA permit fee	<u>\$500.00</u>
	TOTAL ESTIMATE	\$87,600.00



The estimate provided in this report was prepared according to current materials and installation prices as of the date of this report and includes the non-rebated portion of the harmonized sales tax, where applicable. In the event of delays from the time of filing of the report by the Engineer to the time of tendering the work, it is understood that the estimate of cost is subject to inflation. The rate of inflation shall be calculated using the Consumer Price Index applied to the cost of construction from the date of the report to the date of tendering.

Assessment of Costs

The individual assessments are comprised of three (3) assessment components:

- i. Benefit (*advantages relating to the betterment of lands, roads, buildings, or other structures resulting from the improvement to the drain*).
- ii. Outlet Liability (*part of cost required to provide outlet for lands and roads*).
- iii. Special Benefit (*additional work or feature that may not affect function of the drain*).

We have assessed the estimated costs against the affected lands and roads as listed in Schedule 'C' under "Special Benefit", "Benefit" and "Outlet". Details of the Special Benefit assessment listed in Schedule 'C' are provided for in Schedule 'D'.

Assessment Rationale

There is no access to property Roll No. 430-02720 across the Dufour Drain. The present access for this property is through the adjacent property Roll No. 430-09900 having access from Walker Road. The purpose of this new bridge is to facilitate a new street entrance from Middle Side Road (County Road No. 10) for future residential subdivision lands.

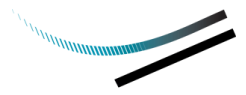
The Special Benefit assessment shown in Schedule 'C' and detailed in Schedule 'D' were derived as follows:

1. For a first time access bridge crossing the Dufour Drain, and for the purpose of a future residential development, costs have been assessed 100% to adjoining property Roll No. 430-02720 as listed under "Special Benefit".

Utilities

It may become necessary to temporarily or permanently relocate utilities that may conflict with the drainage recommended under this report. In accordance with Section 26 of the Drainage Act, any increased costs to the drainage works caused by the presence of the public utility shall be assessed against the public utility having jurisdiction. Under Section 69 of the Drainage Act, the public utility is at liberty to do the work with its own forces, but if it should not exercise this option within a reasonable time, the Municipality will arrange to have this work completed and the costs will be charged to the appropriate public utility.

As part of the future residential subdivision servicing and design, there are known utility works required involving an existing hydro pole relocation and new watermain connection. These works are not considered to be an increased cost to the drainage works caused by the presence of the existing utility. They are a direct result of the new residential development and in our considered opinion, Section 26 of the Drainage Act would not apply.



Future Maintenance (Dufour Drain)

We recommend that future work of repair and maintenance of the Dufour Drain be carried out by the Town of Amherstburg in accordance with the specifications contained within the former 2016 report. The costs shall be assessed against the affected lands and roads in the same relative proportions as shown in the updated Schedule 'E-1' within this report replacing the former Schedule E-1 from the 2016 report. An updated working corridor has also been provided within this report to replace the former working corridor in the 2016 report. The assessment is based on an arbitrary \$10,000.00 of future maintenance costs on the Dufour Drain excluding any special benefit assessments applicable to access culverts, trucking of drain spoils and repairs to lateral surface water and tile drains.

A portion of Property Roll Nos. 430-02720 and 430-09900 have been included in a block assessment denoted as Block 'A' for the purposes of assessing of costs related to future maintenance of the Dufour Drain and Branch A. Block A represents the first phase of residential development separated between future lands and roads. For subsequent phases of future residential development within the remaining portions of Roll Nos. 430-02720 and 430-09900, future block assessments will need to be considered as part of a reassessment in accordance with Section 76 of the Drainage Act due to future land use changes between lands and roads.

Future maintenance costs associated with trucking of drain spoils off site generated between Station 1+188 and Station 1+298 are to be assessed 100% Block 'A' in the same relative proportions between lands and roads.

Future Maintenance (Branch A)

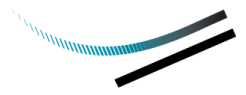
We recommend that future work of repair and maintenance of Branch A be carried out by the Town of Amherstburg in accordance with the specifications contained within the 2016 report. The exception being, the working corridor which has been redefined under this new report contained within Schedule 'F' specifications herein, and the assessment changes as outlined below.

From Station 0+000A to Station 0+173A, the excavated drain spoils shall be disposed of by trucking off-site since they can no longer be placed within the designated corridor on the north side of the drain where a future landscaped green space will occupy this area and surrounding the future storm water pond being situated north of this drain corridor. Trucking costs for drain excavation materials between Stations 0+000A and 0+533A, along with any associated costs required as part of the Excess Soils Regulation (O. Reg. 406/19), shall be assessed 33% to property Roll No. 430-02720 and remaining 67% shall be assessed to property Roll No. 430-09900 as a special benefit assessment.

For all other future drain maintenance costs associated with Branch 'A', they shall be assessed against the affected lands and roads in the same relative proportions as shown in the updated Schedule 'E-2' within this report replacing the former Schedule 'E-2' from the 2016 report. The costs are based on an arbitrary \$10,000.00.

Future Maintenance of Bridge No. 6

We recommend that future work of repair and maintenance of Bridge No. 6 be carried out by the Town of Amherstburg and the costs assessed 100% against the Town of Amherstburg Road Authority in accordance with Section 26 of the Drainage Act.



These provisions for maintenance are subject, of course, to any variations that may be made under the authority of the Drainage Act.

Drawings and Specifications

Attached to this report is "Schedule F", which contain specifications setting out the details of the recommended works. "Schedule G" represents the drawings described herein and are attached to this report:

- Page 1 of 3: Overall Plan**
- Page 2 of 3: Property Information**
- Page 3 of 3: Bridge No.6 Details**

Approvals

The construction and/or improvement to a drainage works, including repair and maintenance activities, and all operations connected therewith are subject to the approval, inspection, by-laws and regulations of all Municipal, Provincial, Federal and other authorities having jurisdiction in respect to any matters embraced by the proposed works. Prior to any construction or maintenance works, the Municipality or proponent designated on the Municipality's behalf shall obtain all required approvals/permits and confirm any construction limitations including timing windows, mitigation/off-setting measures, standard practices or any other limitations related to in-stream works.

The details of the proposed works and supporting calculations were submitted to the Essex Region Conservation Authority (ERCA) on April 4, 2022 for their review. Subsequently, on April 25, 2022 return correspondence was received confirming acceptance of the design, and that the permit application process could be finalized following submission of the final drainage report and drawings.

The Dufour Drain has been classified by the Department of Fisheries and Oceans (DFO) as a Type F drain. Type F drains have intermittent water flow and may provide habitat for bait fish. Standard mitigation measures shall be followed as outlined below.

- Work will not be conducted at times when flows are elevated due to local rain events, storms or seasonal floods. Work will be done in the dry with temporary barriers installed to isolate the work area and removed immediately after work is complete.
- All disturbed soils on both banks and within the channel, including spoil must be stabilized immediately upon completion of work. The restoration of the site must be completed to a like or better condition to what existed prior to the works.
- To prevent sediment entry into the Drain, in the event of an unexpected rainfall, silt barriers and/or traps must be placed in the channel during the works and until the site has been stabilized. All sediment and erosion control measures are to be in accordance with related Ontario Provincial Standards. It is incumbent on the proponent and his/her contractors to ensure that sediment and erosion control measures are functioning properly and are maintained/upgraded as required.

- All activities should be controlled to prevent the entry of petroleum products, debris, rubble, concrete or other deleterious substances into the water. Vehicular refueling and maintenance should be conducted away from the water.

In terms of endangered species, the critical habitat distribution mapping does not identify any critical habitat found for extirpated, endangered, threatened or special concern species within the area of the proposed drainage works. The Town of Amherstburg has developed a mitigation plan document which recommends mitigation measures to minimize adverse effects on species at risk including monitoring and reporting requirements should an endangered, threatened or special concern species (fishes, reptiles, amphibians, molluscs, birds, plants, trees) be encountered. The document shall be made available to the contractor prior to construction.

Respectfully submitted,

DILLON CONSULTING LIMITED



Tim R. Oliver, P.Eng.
TRO:mc



SCHEDULE ‘A’
SUMMARY OF ON-SITE MEETING

Virtual Meeting via Zoom Platform
February 15, 2022 @ 9:00 a.m.

Present:

Michelle Poberezny	Landowner
James Poberezny	Landowner
Mary Arts (absent represented by Michelle)	Landowner
Eric Arts	Landowner
Mike McMahon (MGV Development)	Landowner
Shane McVitty	Town of Amherstburg
Tim Oliver	Dillon Consulting Limited
Oliver Moir	Dillon Consulting Limited
Murrad Abdul	Dillon Consulting Limited

Introduction

Shane McVitty provided an explanation of the request received under Section 78 of the Drainage Act.

Oliver Moir provided an overview of some relevant drainage history, and an overview of the proposed works which includes the construction of a new access bridge for a proposed residential subdivision. It was mentioned that the change in land use requires an updated schedule of assessments for future maintenance for the Dufour Drain and the Branch A Drain. The development’s stormwater management plan will be considered in the assessment of the drain capacity and assessment of costs for future maintenance. The working corridor, which the Town uses to access and maintain the drain will also have to be updated. Costs associated with the works are all a result of the requested bridge, and so can be expected that 100% of the costs associated with the works will be assessed 100% to MGV Developments.

Questions from landowners were submitted ahead of the on-site meeting and were subsequently discussed at the meeting. Question/comments with responses relevant to the drainage works are summarized below:

- Will there be an increase in flow/higher water levels in the drain downstream as a result of the development?
 - Oliver Moir explained that the development will redirect the flows away from its current natural westerly drainage pattern into a stormwater detention pond. The pond will release at a maximum rate equivalent to the pre-development conditions during a storm likely to occur once every two years. It can be expected to actually lower water levels in larger storm events.
- What is the location of the bridge?
 - Oliver Moir identified that the bridge is proposed to be located 35 m east of the property line between Mary J. Arts’s property and the MGV Developments property.
- The drain is filled in with weeds and doesn’t drain well. There is general concern that the development will worsen flooding downstream.

- Shane McVitty explained that drain maintenance is conducted upon request from landowners, so the landowners need only submit a request to brush the drain.
- Oliver Moir explained that the development has the responsibility to not adversely impact neighbours, but also that the stormwater management detention pond may provide a benefit to the drain.

The meeting summary was prepared by Murrad Abdul who should be notified of any errors and/or omissions.

"SCHEDULE C"
SCHEDULE OF ASSESSMENT
DUFOUR DRAIN (BRIDGE NO. 6)
TOWN OF AMHERSTBURG

PRIVATELY-OWNED - AGRICULTURAL LANDS:

Roll No.	Con.	Description	Area Affected		Owner	Special Benefit	Benefit	Outlet	Total Assessment
			(Acres)	(Ha.)					
430-02720	8	Pt Lot 7	4.57	1.85	MGV Developments * (McGregor) Inc.	\$87,600.00	\$0.00	\$0.00	\$87,600.00
Total on Privately-Owned - Agricultural Lands.....						\$87,600.00	\$0.00	\$0.00	\$87,600.00
TOTAL ASSESSMENT - DUFOUR DRAIN (BRIDGE No.6).....						\$87,600.00	\$0.00	\$0.00	\$87,600.00

	(Acres)	(Ha.)
Total Area:	4.57	1.85

* Denotes lands that are not eligible for OMAFRA grants towards the costs of the new access bridge (Bridge No. 6)

"SCHEDULE D"
DETAILS OF SPECIAL BENEFIT
DUFOUR DRAIN (BRIDGE No. 6)
TOWN OF AMHERSTBURG

SPECIAL BENEFIT ASSESSMENT
(GENERAL DESCRIPTION OF SPECIAL BENEFIT)

Roll No.	Owner	Item Description	Estimated Cost	Cost of Report	Special Benefit
430-02720	MGV Developments (McGregor) Inc.	Bridge No. 6 costs all inclusive	\$58,600.00	\$29,000.00	\$87,600.00
Total Special Benefit Assessment			58,600.00	29,000.00	87,600.00
OVERALL TOTAL SPECIAL BENEFIT ASSESSMENT					\$87,600.00

"SCHEDULE E-1"
SCHEDULE OF ASSESSMENT (FUTURE MAINTENANCE)
DUFOUR DRAIN
TOWN OF AMHERSTBURG

MUNICIPAL LANDS:

Description	Area Affected		Owner	Special Benefit	Benefit	Outlet	Total Assessment
	(Acres)	(Ha.)					
Middle Sideroad (County Road 10)	5.00	2.02	County of Essex	\$0.00	\$278.00	\$576.00	\$854.00
8th Concession Road	3.60	1.46	Town of Amherstburg	\$0.00	\$488.00	\$1,150.00	\$1,638.00
Gardiner Crescent	1.42	0.57	Town of Amherstburg	\$0.00	\$25.00	\$451.00	\$476.00
McGregor Court	0.37	0.15	Town of Amherstburg	\$0.00	\$7.00	\$119.00	\$126.00
Block A Roads	7.56	3.06	Town of Amherstburg	\$0.00	\$119.00	\$392.00	\$511.00
Total on Municipal Lands.....				\$0.00	\$917.00	\$2,688.00	\$3,605.00

PRIVATELY-OWNED - NON-AGRICULTURAL LANDS:

Roll No.	Con.	Description	Area Affected		Owner	Special Benefit	Benefit	Outlet	Total Assessment
			(Acres)	(Ha.)					
Block A Lands			23.15	9.37	MGV Developments (McGregor) Inc.	\$0.00	\$222.00	\$729.00	\$951.00
380-05400	7	Pt Lot 6	4.20	1.70	Jeffrey Tales & Jami L. Reaume	\$0.00	\$11.00	\$81.00	\$92.00
380-05600	8	Pt Lot 6	0.48	0.19	Enrico J. & Krista M. Truant	\$0.00	\$5.00	\$27.00	\$32.00
380-05700	8	Pt Lot 6	0.57	0.23	Dante & Marisa Delrizzo	\$0.00	\$5.00	\$30.00	\$35.00
380-05800	8	Pt Lot 6	0.53	0.21	Grant E. Chittim & Andrea Elaine	\$0.00	\$6.00	\$33.00	\$39.00
380-05900	8	Pt Lot 6	0.45	0.18	Kyle P. Krizan	\$0.00	\$5.00	\$29.00	\$34.00
380-05905	8	Pt Lot 6	0.40	0.16	Gregory G. Girard	\$0.00	\$4.00	\$25.00	\$29.00
380-06000	8	Pt Lot 6	0.64	0.26	Brian J. & Christine G. Beaton	\$0.00	\$5.00	\$36.00	\$41.00
380-06200	8	Pt Lot 6	0.30	0.12	1473511 Ontario Limited	\$0.00	\$3.00	\$20.00	\$23.00
380-06233	8	Pt Lot 6	0.32	0.13	Jesse & Kelly Bone	\$0.00	\$4.00	\$22.00	\$26.00
380-06234	8	Pt Lot 6	0.32	0.13	Travis W.R. and Tina B. Middleton	\$0.00	\$4.00	\$22.00	\$26.00
380-06235	8	Pt Lot 6	0.32	0.13	Roger H. & Sheila A. Baillargeon	\$0.00	\$4.00	\$22.00	\$26.00
380-06236	8	Pt Lot 6	0.32	0.13	Sarah Cherian	\$0.00	\$4.00	\$22.00	\$26.00
380-06237	8	Pt Lot 6	0.32	0.13	Scott R. Warnock & Pierrette A. Wray	\$0.00	\$4.00	\$22.00	\$26.00
380-06238	8	Pt Lot 6	0.32	0.13	Derek R. & Jennifer M. Aiken	\$0.00	\$4.00	\$22.00	\$26.00
380-06239	8	Pt Lot 6	0.32	0.13	David Cvetanovski	\$0.00	\$4.00	\$22.00	\$26.00
380-06240	8	Pt Lot 6	0.32	0.13	Community Living Essex County	\$0.00	\$4.00	\$22.00	\$26.00
380-06241	8	Pt Lot 6	0.32	0.13	Beverly A. Santin & Nelson J. Rocheleau	\$0.00	\$4.00	\$22.00	\$26.00
380-06228	8	Pt Lot 6	0.34	0.14	Justin M. Kilmowics & Emily M. Hillman	\$0.00	\$4.00	\$23.00	\$27.00
380-06229	8	Pt Lot 6	0.45	0.18	John T. & Sandra M. Amato	\$0.00	\$5.00	\$30.00	\$35.00
380-06230	8	Pt Lot 6	0.35	0.14	Henry & Deborah A. Schwager	\$0.00	\$4.00	\$23.00	\$27.00
380-06231	8	Pt Lot 6	0.34	0.14	Martin E. A. & Colleen B. Nelson	\$0.00	\$4.00	\$23.00	\$27.00
380-06232	8	Pt Lot 6	0.34	0.14	Mary Ann E. Papia Arce	\$0.00	\$4.00	\$23.00	\$27.00
380-00020	8	Pt Lot 6	1.78	0.72	Essex Region Conservation Foundation	\$0.00	\$8.00	\$58.00	\$66.00
430-00010	8	Pt Lot 7	5.40	2.19	Essex Region Conservation Foundation	\$0.00	\$25.00	\$176.00	\$201.00
430-00810	8	RP M285 Lot 18	0.22	0.09	Adam J. Lucier	\$0.00	\$2.00	\$15.00	\$17.00

Roll No.	Con.	Description	Area Affected		Owner	Special Benefit	Benefit	Outlet	Total Assessment
			(Acres)	(Ha.)					
430-00812	8	RP M285 Lot 17	0.27	0.11	Wallace N. & Rosemary K. Charett	\$0.00	\$3.00	\$18.00	\$21.00
430-00814	8	RP M285 Lot 16	0.24	0.10	Lindsay Charette & Michael Deyoung	\$0.00	\$3.00	\$16.00	\$19.00
430-00816	8	RP M285 Lot 15	0.40	0.16	Igor Varga & Shirley Couch	\$0.00	\$4.00	\$27.00	\$31.00
430-00818	8	RP M285 Lot 14	0.29	0.12	Kevin & Penny Veldhuis	\$0.00	\$3.00	\$20.00	\$23.00
430-00802	8	RP M285 Lot 22	0.25	0.10	Matthew B. & Heather E. Allison	\$0.00	\$3.00	\$16.00	\$19.00
430-00820	8	RP M 285 Lot 13	0.20	0.08	Jody A. & Melissa D. Fleming	\$0.00	\$2.00	\$13.00	\$15.00
430-00821	8	RP M285 Lot 12,13 & 14	0.19	0.08	Nistor & Livia Sasca	\$0.00	\$2.00	\$13.00	\$15.00
430-00822	8	RP M285Lot 12 & 14	0.19	0.08	Richard H. & Patricia J. Prieur	\$0.00	\$2.00	\$13.00	\$15.00
430-00826	8	RP M285 Lot 11	0.22	0.09	David W. & Terese A. Pitt	\$0.00	\$2.00	\$15.00	\$17.00
430-00828	8	RP M285 Lot 10	0.18	0.07	Robert J. & Irene A. McFarlane	\$0.00	\$2.00	\$12.00	\$14.00
430-00830	8	RP M285 Lot 9	0.18	0.07	Kenneth & Marie Allen	\$0.00	\$2.00	\$12.00	\$14.00
430-00832	8	RP M285 Lot 8	0.18	0.07	John F. & Janine J. Willett	\$0.00	\$2.00	\$12.00	\$14.00
430-00834	8	RP M285 Lot 7	0.18	0.07	Jerome & Victoria Pardo	\$0.00	\$2.00	\$12.00	\$14.00
430-00836	8	RP M285 Lot 6	0.18	0.07	Paula C. Charlebois	\$0.00	\$2.00	\$12.00	\$14.00
430-00838	8	RP M285 Lot 5	0.18	0.07	Antonio & Theresa Pietrangelo	\$0.00	\$2.00	\$12.00	\$14.00
430-00804	8	RP M285 Lot 21	0.20	0.08	Cherie H. Lajoy & Richard J. & Deborah A. Drouillard	\$0.00	\$2.00	\$13.00	\$15.00
430-00840	8	RP M285 Lot 4	0.25	0.10	Marek & Mariola Piotrowski	\$0.00	\$3.00	\$16.00	\$19.00
430-00842	8	RP M285 Lot 3	0.52	0.21	Izidor & Mitzi Fujs	\$0.00	\$6.00	\$35.00	\$41.00
430-00844	8	RP M285 Lot 2	0.42	0.17	Allen C. & Lori A. Stewart	\$0.00	\$5.00	\$29.00	\$34.00
430-00846	8	RP M285 Lot 1	0.27	0.11	Allan J. & Allan C. & Lori Stewart	\$0.00	\$3.00	\$18.00	\$21.00
430-00806	8	RP M285 Lot 20	0.20	0.08	Mark A. Pszczonak & Robyn J. Nease	\$0.00	\$2.00	\$13.00	\$15.00
430-00808	8	RP M285 Lot 19	0.20	0.08	Matthew F. Charlebois & Crystal M. Barron	\$0.00	\$2.00	\$13.00	\$15.00
430-01100	8	Pt Lot 7 RP 12R22195 Pt. 1	0.35	0.14	Barbara Bellemore & Betty Jane Belleau	\$0.00	\$4.00	\$23.00	\$27.00
430-01200	8	Pt Lot 7	1.09	0.44	Jason J. & Michelle T. Bullard	\$0.00	\$7.00	\$46.00	\$53.00
430-01500	8	Pt Lot 7	1.42	0.57	Cheryl L. Major & Linda A. Bondy	\$0.00	\$7.00	\$49.00	\$56.00
430-01600	8	Pt Lot 7	0.61	0.25	Thomas J. & Karen Renaud	\$0.00	\$5.00	\$38.00	\$43.00
430-01700	8	Pt Lot 7	0.57	0.23	Nelson F. Drouillard	\$0.00	\$5.00	\$36.00	\$41.00
430-01800	8	Pt Lot 7	0.52	0.21	Yollande McIntyre	\$0.00	\$6.00	\$35.00	\$41.00
430-01900	8	Pt Lot 7	0.48	0.19	Adam J. & Candace R. Hammond	\$0.00	\$5.00	\$32.00	\$37.00
430-02000	8	Pt Lot 7	0.46	0.19	Gilbert H. Beaulieu	\$0.00	\$5.00	\$32.00	\$37.00
430-02100	8	Pt Lot 7	0.39	0.16	Daniel J. & Margaret J. Leithead	\$0.00	\$4.00	\$27.00	\$31.00
430-02200	8	Pt Lot 7	0.36	0.15	Wanda J. Gagnon & Robert H. Dishman	\$0.00	\$4.00	\$25.00	\$29.00
430-02300	8	Pt Lot 7	0.38	0.15	Stephen P. Skov	\$0.00	\$4.00	\$25.00	\$29.00
430-02400	8	Pt Lot 7	0.33	0.13	Hydro One Networks Inc.	\$0.00	\$4.00	\$22.00	\$26.00
430-02500	8	Pt Lot 7	0.40	0.16	Kenneth H. Holden	\$0.00	\$4.00	\$27.00	\$31.00
430-02750	8	Pt Lot 7	1.15	0.47	Kevin V. Murphy & Linda A. Bailey	\$0.00	\$7.00	\$40.00	\$47.00
430-05000	8	Pt Lot 7	0.55	0.22	James P. & Michelle C. Poberezny	\$0.00	\$22.00	\$27.00	\$49.00
430-05050	8	Pt Lot 7	0.46	0.19	Maddalena & Eric Simone	\$0.00	\$17.00	\$21.00	\$38.00
Total on Privately-Owned - Non-Agricultural Lands.....						\$0.00	\$527.00	\$2,444.00	\$2,971.00

Roll No.	Con.	Description	Area Affected (Acres) (Ha.)		Owner	Special Benefit	Benefit	Outlet	Total Assessment
PRIVATELY-OWNED - AGRICULTURAL LANDS									
380-05300	8	Pt Lot 6	2.85	1.15	Paul H. Ouellette	\$0.00	\$7.00	\$55.00	\$62.00
380-06100	8	Pt Lot 6	1.98	0.80	Joseph Miceli	\$0.00	\$5.00	\$41.00	\$46.00
430-02700	8	Pt Lot 7	35.36	14.31	Mary J. Arts	\$0.00	\$407.00	\$732.00	\$1,139.00
430-02800	7	Pt Lot 7	7.00	2.83	Viscount Mobile Homes Ltd.	\$0.00	\$19.00	\$140.00	\$159.00
430-08200	8	S Pt Lot, RP M246 Lot 1&Pt Lot 2	20.00	8.09	STS George & Sharbel Holdings Ltd	\$0.00	\$162.00	\$231.00	\$393.00
430-09700	8	Pt Lot 7	21.42	8.67	Christopher & Elaine Mannina	\$0.00	\$162.00	\$248.00	\$410.00
430-02720	8	Pt Lot 7	4.57	1.85	MGV Developments (McGregor) Inc.	\$0.00	\$34.00	\$111.00	\$145.00
XXX-XXXX	8	Pt Lot 7	5.73	2.32 *	MGV Developments (McGregor) Inc.	\$0.00	\$43.00	\$139.00	\$182.00
430-09900	8	Pt Lot 7	23.25	9.41	MGV Developments (McGregor) Inc.	\$0.00	\$172.00	\$566.00	\$738.00
XXX-XXXX	8	Pt Lot 7	5.58	2.26 **	MGV Developments (McGregor) Inc.	\$0.00	\$45.00	\$105.00	\$150.00
Total on Privately-Owned - Agricultural Lands.....						\$0.00	\$1,056.00	\$2,368.00	\$3,424.00
TOTAL ASSESSMENT - DUFOUR DRAIN.....						\$0.00	\$2,500.00	\$7,500.00	\$10,000.00
			(Acres)	(Ha.)					
Total Area:			203.42	82.30					

- * Denotes future parcel for stormwater pond awaiting future Roll No. to be assigned
- ** Denotes severed property located north of Block 'A' awaiting future Roll No. to be assigned

"SCHEDULE E-2"
SCHEDULE OF ASSESSMENT (FUTURE MAINTENANCE)
BRANCH A
TOWN OF AMHERSTBURG (COUNTY OF ESSEX)

MUNICIPAL LANDS:

Description	Area Affected		Owner	Special	Benefit	Outlet	Total
	(Acres)	(Ha.)		Benefit			
Gardiner Crescent	1.20	0.49	Town of Amherstburg	\$0.00	\$58.00	\$439.00	\$497.00
McGregor Court	0.35	0.14	Town of Amherstburg	\$0.00	\$17.00	\$126.00	\$143.00
Block A Roads	7.56	3.06	Town of Amherstburg	\$0.00	\$193.00	\$774.00	\$967.00
Total on Ontario Lands.....				\$0.00	\$268.00	\$1,339.00	\$1,607.00

PRIVATELY-OWNED - NON-AGRICULTURAL LANDS:

Roll No.	Con.	Description	Area Affected		Owner	Special	Benefit	Outlet	Total
			(Acres)	(Ha.)		Benefit			
Block A Lands			23.15	9.37	MGV Developments (McGregor) Inc.	\$0.00	\$258.00	\$1,438.00	\$1,696.00
430-00010	8	Pt Lot 7	5.40	2.19	Essex Region Conservation Foundation	\$0.00	\$714.00	\$589.00	\$1,263.00
430-00802	8	RP M285 Lot 22	0.25	0.10	Matthew B. & Heather E. Allison	\$0.00	\$9.00	\$75.00	\$68.00
430-00804	8	RP M285 Lot 21	0.22	0.09	Cherie H. & Richard J. & Deborah A. Drouillard	\$0.00	\$8.00	\$68.00	\$62.00
430-00806	8	RP M285 Lot 20	0.20	0.08	Mark A. Pszczonak & Robyn J. Nease	\$0.00	\$7.00	\$60.00	\$55.00
430-00808	8	RP M285 Lot 19	0.20	0.08	Matthew F. Charlebois & Crystal M. Barron	\$0.00	\$7.00	\$60.00	\$55.00
430-00810	8	RP M285 Lot 18	0.22	0.09	Adam J. Lucier	\$0.00	\$8.00	\$68.00	\$62.00
430-00812	8	RP M285 Lot 17	0.27	0.11	Wallace N. & Rosemary K. Charette	\$0.00	\$10.00	\$83.00	\$75.00
430-00814	8	RP M285 Lot 16	0.24	0.10	Lindsay Charette & Michael Deyoung	\$0.00	\$9.00	\$75.00	\$68.00
430-00816	8	RP M285 Lot 15	0.40	0.16	Igor Varga & Shirley Couch	\$0.00	\$14.00	\$120.00	\$109.00
430-00818	8	RP M285 Lot 14	0.29	0.12	Kevin & Penny Veldhuis	\$0.00	\$11.00	\$90.00	\$83.00
430-00820	8	RP M 285 Lot 13 & 14	0.19	0.08	Jody A. & Melissa J. Fleming	\$0.00	\$7.00	\$60.00	\$55.00
430-00821	8	RP M285 Lot 12,13 & 14	0.20	0.08	Nistor & Livia Sasca	\$0.00	\$7.00	\$60.00	\$55.00
430-00822	8	RP M285Lot 12 & 14	0.19	0.08	Richard H. & Patricia J. Prieur	\$0.00	\$7.00	\$60.00	\$55.00
430-00826	8	RP M285 Lot 11	0.22	0.09	David W. & Terese A. Pitt	\$0.00	\$8.00	\$68.00	\$62.00
430-00828	8	RP M285 Lot 10	0.18	0.07	Robert J. & Irene A. McFarlane	\$0.00	\$6.00	\$52.00	\$48.00
430-00830	8	RP M285 Lot 9	0.18	0.07	Kenneth & Marie Allen	\$0.00	\$6.00	\$52.00	\$48.00
430-00832	8	RP M285 Lot 8	0.18	0.07	John F. & Janine J. Willett	\$0.00	\$6.00	\$52.00	\$48.00
430-00834	8	RP M285 Lot 7	0.18	0.07	Jerome & Victoria Pardo	\$0.00	\$6.00	\$52.00	\$48.00
430-00836	8	RP M285 Lot 6	0.18	0.07	Paula C. Charlebois	\$0.00	\$6.00	\$52.00	\$48.00
430-00838	8	RP M285 Lot 5	0.18	0.07	Antonio & Theresa Pietrangelo	\$0.00	\$6.00	\$52.00	\$48.00
430-00840	8	RP M285 Lot 4	0.28	0.11	Marek & Mariola Piotrowski	\$0.00	\$10.00	\$83.00	\$75.00
430-00842	8	RP M285 Lot 3	0.25	0.10	Izidor & Mitzi Fujs	\$0.00	\$9.00	\$75.00	\$68.00
430-00844	8	RP M285 Lot 2	0.24	0.10	Allen C. & Lori A. Stewart	\$0.00	\$9.00	\$75.00	\$68.00
430-00846	8	RP M285 Lot 1	0.27	0.11	Allan J. & Allan C. & Lori Stewart	\$0.00	\$10.00	\$83.00	\$75.00

Roll No.	Con.	Description	Area Affected		Owner	Special Benefit	Benefit	Outlet	Total Assessment
			(Acres)	(Ha.)					
430-01100	8	Pt. Lot 7 RP 12R22195 Pt. 1	0.35	0.14	Barbara Bellemore & Betty J. Belleau	\$0.00	\$13.00	\$105.00	\$96.00
430-01200	8	Pt Lot 7	1.09	0.44	Jason J. & Michelle T. Bullard	\$0.00	\$25.00	\$187.00	\$172.00
430-01500	8	Pt Lot 7	1.42	0.57	Cheryl L. Major & Linda A. Bondy	\$0.00	\$28.00	\$201.00	\$186.00
430-01600	8	Pt Lot 7	0.37	0.15	Thomas J. & Karen Renaud	\$0.00	\$14.00	\$91.00	\$85.00
430-01700	8	Pt Lot 7	0.33	0.13	Nelson F. Drouillard	\$0.00	\$12.00	\$79.00	\$74.00
430-01800	8	Pt Lot 7	0.28	0.11	Yollande McIntyre	\$0.00	\$10.00	\$63.00	\$60.00
430-01900	8	Pt Lot 7	0.24	0.10	Adam J. & Candace R. Hammond	\$0.00	\$9.00	\$57.00	\$54.00
430-02000	8	Pt Lot 7	0.22	0.09	Gilbert H. Beaulieu	\$0.00	\$8.00	\$49.00	\$47.00
430-02100	8	Pt Lot 7	0.15	0.06	Daniel J. & Margaret J. Leithead	\$0.00	\$5.00	\$32.00	\$30.00
430-02200	8	Pt Lot 7	0.12	0.05	Wanda J. Gagnon & Robert H. Dishman	\$0.00	\$4.00	\$25.00	\$24.00
430-02300	8	Pt Lot 7	0.16	0.06	Stephen P. Skov	\$0.00	\$5.00	\$30.00	\$29.00
430-02400	8	Pt Lot 7	0.11	0.04	Hydro One Networks Inc.	\$0.00	\$3.00	\$18.00	\$18.00
430-02500	8	Pt Lot 7	0.07	0.03	Kenneth H. Holden	\$0.00	\$3.00	\$14.00	\$13.00
Total on Privately-Owned - Non-Agricultural Lands.....						\$0.00	\$1,297.00	\$4,553.00	\$5,850.00
PRIVATELY-OWNED - AGRICULTURAL LANDS:									
430-02720	8	Pt Lot 7	4.57	1.85	MGV Developments (McGregor) Inc.	\$0.00	\$132.00	\$219.00	\$351.00
XXX-XXXX	8	Pt Lot 7	5.73	2.32 *	MGV Developments (McGregor) Inc.	\$0.00	\$166.00	\$275.00	\$441.00
430-09900	8	Pt Lot 7	23.25	9.41	MGV Developments (McGregor) Inc.	\$0.00	\$637.00	\$1,114.00	\$1,751.00
Total on Privately-Owned - Agricultural Lands.....						\$0.00	\$935.00	\$1,608.00	\$2,543.00
TOTAL ASSESSMENT - BRANCH A.....						\$0.00	\$2,500.00	\$7,500.00	\$10,000.00
			(Acres)	(Ha.)					
Total Area:			58.18	23.53					

* Denotes future parcel for stormwater pond awaiting future Roll No. to be assigned

”SCHEDULE F”
**NEW ACCESS BRIDGE OVER THE
DUFOUR DRAIN
TOWN OF AMHERSTBURG**

SPECIAL PROVISIONS - GENERAL

1.0 GENERAL SPECIFICATIONS

The General Specifications attached hereto is part of “Schedule F.” It also forms part of this specification and is to be read with it, but where there is a difference between the requirements of the General Specifications and those of the Special Provisions which follow, the Special Provisions will take precedence.

2.0 DESCRIPTION OF WORK

The work to be carried out under this Contract includes, but is not limited to, the supply of all **labour, materials, and equipment** to complete the following items:

- Supply and place a new 45 m long, 1400 mm diameter polymer laminated corrugated steel pipe (CSP) culvert with 125 mm x 25 mm corrugations and 2.8 mm thickness including coupler hardware and an 18 degree prefabricated polymer laminated corrugated steel pipe elbow (see Specifications).
- Supply and placement of clearstone 20 – 25 mm size bedding below culvert, minimum 150 mm thickness (approximately 40 tonnes).
- Supply and placement of Granular 'A' (crushed limestone) compacted backfill materials from the bridge invert up to the springline of the culvert (approximately 135 tonnes).
- Supply and placement of Granular 'A' (crushed limestone) compacted backfill material from the culvert springline up to the roadway surface (approximately 250 tonnes).
- Supply and placement of imported clean native backfill material from the culvert springline to the top of the drain banks beyond the roadway, for the culvert portion (approximately 300 m³).
- Supply and placement of stone rip-rap minimum 300 mm thickness c/w filter cloth underlay for sloping end walls (approximately 35 m²).
- Temporary sediment and erosion control measures

3.0 ACCESS TO THE WORK

Access to the drain shall be from the County Road No. 10 right-of-way and Cypher Systems Group Greenway trail. The Contractor shall make his/her own arrangements for any additional access for his/her convenience. All road areas, greenway trail and grass lawn areas disturbed shall be restored to original conditions at the Contractor’s expense.

4.0 WORKING CORRIDOR (BRIDGE NO. 6)

The working area at the bridge site shall be restricted to the working corridor along the south side of the drain, as specified in the following section and including the County Road No. 10 road allowance provided through traffic is maintained as per Section 13.0 in the General Specifications.

5.0 WORKING CORRIDOR (DUFOUR DRAIN & BRANCH A)

For the purpose of future maintenance, the Contractor shall restrict his equipment to the working corridors as specified in this Section. Any damage resulting from non-compliance with this Section, shall be borne by the Contractor. The new working corridor shall be measured from the top of the new drain bank and shall be as follows:

FROM	TO	WORKING CORRIDOR
		Dufour Drain
0+000	0+750	9.0 m wide on east side of drain measured from top of bank
0+750	0+785	8th Concession Road ROW
0+785	0+807	9.0 m wide on east side of drain measured from top of bank
0+807	0+890	8th Concession Road ROW / 6 m wide on Roll No. 430-02750
0+890	0+939	County Road No. 10 ROW / 6 m wide on Roll No. 430-02750
0+939	1+188	9.0 m wide on north side of drain measured from top of bank
1+188	1+240	County Road No. 10 ROW/Street A ROW
1+240	1+298	9.0 m wide on north side (For north bank repairs only) 9.0 m wide on south side measured from top of bank (for drain cleanout, excavation, trucking, outlet pipes and south bank repairs)
		Branch A Drain
0+000A	0+173A	9.0 m wide on north side (For north bank repairs only) 9.0 m wide on south side measured from top of bank (for drain cleanout, excavation, trucking, outlet pipes and south bank repairs)
0+173A	0+533A	9.0 m wide on south side of drain measured from top of bank (For drain cleanout, excavation, trucking, outlet pipes and south bank repairs)

6.0 BRIDGE CONSTRUCTION

6.1 Location of New Access Bridge

The new bridge structure shall be installed as shown on the drawing attached hereto.

6.2 Materials for New Bridge

Materials shall be as follows:

Culvert Pipe

New 45 m long, 1400 mm diameter polymer laminated corrugated steel pipe (CSP) wall thickness of 2.8 mm and 125 x 25 mm corrugations with rerolled ends complete with 18 degree prefabricated polymer laminated corrugated steel pipe elbow meeting the pipe manufacturer's specifications. New culvert shall be joined with annular polymer laminated corrugated wide bolt and angle couplers (minimum of 8

<i>Culvert Bedding</i>	<i>corrugations overlap and 2.8 mm wall thickness) and no single pipe less than 6.0 m in length. All pipes connected with couplers shall abut to each other with no more than a 25 mm gap between pipes prior to installation of the coupler and wrapped with filter fabric.</i> <i>20-25 mm size clearstone conforming to OPSS Division 10. Minimum 150 mm thickness.</i>
<i>Backfill up to culvert springline</i>	<i>Granular 'A' conforming to OPSS Division 10.</i>
<i>Beneath Road Surface, Backfill Above Pipe Springline</i>	<i>Full Granular 'A' backfill conforming to OPSS Division 10.</i>
<i>Beyond Road Surface, Backfill Above Pipe Springline</i>	<i>Dry native material free of topsoil, organic matter, broken concrete, steel, wood and deleterious substances.</i>
<i>Erosion Stone</i>	<i>All stone to be used for erosion protection shall be 125 - 250 mm clear quarried rock or OPSS 1004, minimum 300 mm thickness.</i>
<i>Filter Fabric</i>	<i>"Non-Woven" geotextile filter fabric with a minimum strength equal to or greater than Terrafix 270R, Amoco 4546, Mirafi 140NC or approved equivalent.</i>

6.3 Culvert Installation

Suitable dykes shall be constructed in the drain so that the installation of the bridge can be accomplished in the dry. The drain bottom shall be cleaned, prepared, shaped and compacted to suit the new culvert configuration, as shown on the drawings. Granular materials shall be compacted to 100% of their maximum dry density; imported clean native materials shall be supplied, placed and compacted to 95% of their maximum dry density.

6.4 Sloping Stone End Walls

End walls shall be constructed of quarry stone rip-rap, as specified herein. Each end wall shall extend from the invert of the new culvert to the top of the proposed lane. The end walls shall be sloped 1 vertical to 1.5 horizontal with a filter fabric underlay surrounding the pipe and spanning across the entire width of the drain and wrapping around the drain banks to align with the ends of the new pipe culvert. The minimum thickness requirement of the erosion stone layer is 300 mm with no portion of the filter fabric to be exposed to sunlight.

6.5 Granular 'A' Driveway Surface

The Contractor shall construct the driveway surface with a maximum 3% cross-fall grade consisting of compacted Granular 'A' (crushed limestone). The minimum top width of the driveway shall be as shown on the drawings.

6.6 Native Materials

Native materials suitable for use as backfill, as defined under Section 6.2, shall be imported as required to complete the work as shown on the drawings. Alternatively, the Contractor may elect to import additional non-contaminated dry native materials at their own expense.

6.7 Lateral Tile and/or Surface Swale Drains

Should the Contractor encounter any lateral tiles or surface swale drains within the proposed culvert limits not shown on the attached drawings, the Contractor shall re-route in consultation with the Drainage Superintendent, as required, to accommodate the new culvert. **Tile drain outlets through the wall of the new culvert pipe will not be permitted.** All costs associated with re-routing (if any) shall be at the Contractor's expense.

7.0 UTILITY POLE SUPPORT

The Contractor's attention is drawn to the hydro pole that exists in the vicinity of the proposed bridge. Should the work commence prior to the hydro pole relocation, the Contractor shall notify Hydro One Networks Inc. and request utility pole support services for the duration of the work at his/her expense.

GENERAL SPECIFICATIONS

1.0 AGREEMENT AND GENERAL CONDITIONS

The part of the Specifications headed "Special Provisions" which is attached hereto forms part of this Specification and is to be read with it. Where there is any difference between the requirements of this General Specification and those of the Special Provisions, the Special Provisions shall govern.

Where the word "Drainage Superintendent" is used in this specification, it shall mean the person or persons appointed by the Council of the Municipality having jurisdiction to superintend the work.

Tenders will be received and contracts awarded only in the form of a lump sum contract for the completion of the whole work or of specified sections thereof. The Tenderer agrees to enter into a formal contract with the Municipality upon acceptance of the tender. The General Conditions of the contract and Form of Agreement shall be those of the Stipulated Price Contract CCDC2-Engineers, 1994 or the most recent revision of this document.

2.0 EXAMINATION OF SITE, PLANS AND SPECIFICATIONS

Each tenderer must visit the site and review the plans and specifications before submitting his/her tender and must satisfy himself/herself as to the extent of the work and local conditions to be met during the construction. Claims made at any time after submission of his/her tender that there was any misunderstanding of the terms and conditions of the contract relating to site conditions, will not be allowed. The Contractor will be at liberty, before bidding to examine any data in the possession of the Municipality or of the Engineer.

The quantities shown or indicated on the drawings or in the report are estimates only and are for the sole purpose of indicating to the tenderers the general magnitude of the work. The tenderer is responsible for checking the quantities for accuracy prior to submitting his/her tender.

3.0 MAINTENANCE PERIOD

The successful Tenderer shall guarantee the work for a period of one (1) year from the date of acceptance thereof from deficiencies that, in the opinion of the Engineer, were caused by faulty workmanship or materials. The successful Tenderer shall, at his/her own expense, make good and repair deficiencies and every part thereof, all to the satisfaction of the Engineer. Should the successful Tenderer for any cause, fail to do so, then the Municipality may do so and employ such other person or persons as the Engineer may deem proper to make such repairs or do such work, and the whole costs, charges and expense so incurred may be deducted from any amount due to the Tenderer or may be collected otherwise by the Municipality from the Tenderer.

4.0 GENERAL CO-ORDINATION

The Contractor shall be responsible for the coordination between the working forces of other organizations and utility companies in connection with this work. The Contractor shall have no cause of action against the Municipality or the Engineer for delays based on the allegation that the site of the work was not made available to him by the Municipality or the Engineer by reason of the acts, omissions, misfeasance or non-feasance of other organizations or utility companies engaged in other work.

5.0 RESPONSIBILITY FOR DAMAGES TO UTILITIES

The Contractor shall note that overhead and underground utilities such as hydro, gas, telephone and water are not necessarily shown on the drawings. It is the Contractor's responsibility to contact utility companies for information regarding utilities, to exercise the necessary care in construction operations and to take other precautions to safeguard the utilities from damage. All work on or adjacent to any utility, pipeline, railway, etc., is to be carried out in accordance with the requirements

of the utility, pipeline, railway, or other, as the case may be, and its specifications for such work are to be followed as if they were part of this specification. The Contractor will be liable for any damage to utilities.

6.0 CONTRACTOR'S LIABILITY

The Contractor, his/her agents and all workmen or persons under his/her control including sub-contractors, shall use due care that no person or property is injured and that no rights are infringed in the prosecution of the work. The Contractor shall be solely responsible for all damages, by whomsoever claimable, in respect to any injury to persons or property of whatever description and in respect of any infringement of any right, privilege or easement whatever, occasioned in the carrying on of the work, or by any neglect on the Contractor's part.

The Contractor, shall indemnify and hold harmless the Municipality and the Engineer, their agents and employees from and against claims, demands, losses, costs, damages, actions, suits, or proceedings arising out of or attributable to the Contractor's performance of the contract.

7.0 PROPERTY BARS AND SURVEY MONUMENTS

The Contractor shall be responsible for marking and protecting all property bars and survey monuments during construction. All missing, disturbed or damaged property bars and survey monuments shall be replaced at the Contractor's expense, by an Ontario Land Surveyor.

8.0 MAINTENANCE OF FLOW

The Contractor shall, at his/her own cost and expense, permanently provide for and maintain the flow of all drains, ditches and water courses that may be encountered during the progress of the work.

9.0 ONTARIO PROVINCIAL STANDARDS

Ontario Provincial Standard Specifications (OPSS) and Ontario Provincial Standard Drawings (OPSD) shall apply and govern at all times unless otherwise amended or extended in these Specifications or on the Drawing. Access to the electronic version of the Ontario Provincial Standards is available online through the MTO website, free of charge to all users. To access the electronic standards on the Web, go to <http://www.mto.gov.on.ca/english/transrd/>. Under the title Technical Manuals is a link to the Ontario Provincial Standards. Users require Adobe Acrobat to view all pdf files.

10.0 APPROVALS, PERMITS AND NOTICES

The construction of the works and all operations connected therewith are subject to the approval, inspection, by-laws and regulations of all Municipal, Provincial, Federal and other authorities having jurisdiction in respect to any matters embraced in this Contract. The Contractor shall obtain all approvals and permits and notify the affected authorities when carrying out work in the vicinity of any public utility, power, underground cables, railways, etc.

11.0 SUBLETTING

The Contractor shall keep the work under his/her personal control, and shall not assign, transfer, or sublet any portion without first obtaining the written consent of the Municipality.

12.0 TIME OF COMPLETION

The Contractor shall complete all work on or before the date fixed at the time of tendering. The Contractor will be held liable for any damages or expenses occasioned by his/her failure to complete the work on time and for any expenses of inspection, superintending, re-tendering or re-surveying, due to their neglect or failure to carry out the work in a timely manner.

13.0 TRAFFIC CONTROL

The Contractor will be required to control vehicular and pedestrian traffic along roads at all times and shall, at his/her own expense, provide for placing and maintaining such barricades, signs, flags, lights and flag persons as may be required to ensure public safety. The Contractor will be solely responsible for controlling traffic and shall appoint a representative to maintain the signs and warning lights at night, on weekends and holidays and at all other times that work is not in progress. All traffic control during construction shall be strictly in accordance with the **Occupational Health and Safety Act** and the current version of the **Ontario Traffic Manuals**. Access to the electronic version of the **Ontario Traffic Manual** is available online through the MTO website, free of charge to all users. To access the electronic standards on the Web, go to <http://www.mto.gov.on.ca/english/transrd/>, click on "Library Catalogue," under the "Title," enter "Ontario Traffic Manual" as the search. Open the applicable "Manual(s)" by choosing the "Access Key," once open look for the "Attachment," click the pdf file. Users require Adobe Acrobat to view all pdf files.

Contractors are reminded of the requirements of the Occupational Health and Safety Act pertaining to Traffic Protection Plans for workers and Traffic Control Plan for Public Safety.

14.0 SITE CLEANUP AND RESTORATION

As part of the work and upon completion, the Contractor shall remove and dispose of, off-site any loose timber, logs, stumps, large stones, rubber tires, cinder blocks or other debris from the drain bottom and from the side slopes. Where the construction works cross a lawn, the Contractor shall take extreme care to avoid damaging the lawn, shrubs and trees encountered. Upon completion of the work, the Contractor shall completely restore the area by the placement and fine grading of topsoil and seeding or sodding the area as specified by the Engineer or Drainage Superintendent.

15.0 UTILITY RELOCATION WORKS

In accordance with Section 26 of the Drainage Act, if utilities are encountered during the installation of the drainage works that conflict with the placement of the new culvert, the operating utility company shall relocate the utility at their own costs. The Contractor however will be responsible to co-ordinate these required relocations (if any) and their co-ordination work shall be considered incidental to the drainage works.

16.0 FINAL INSPECTION

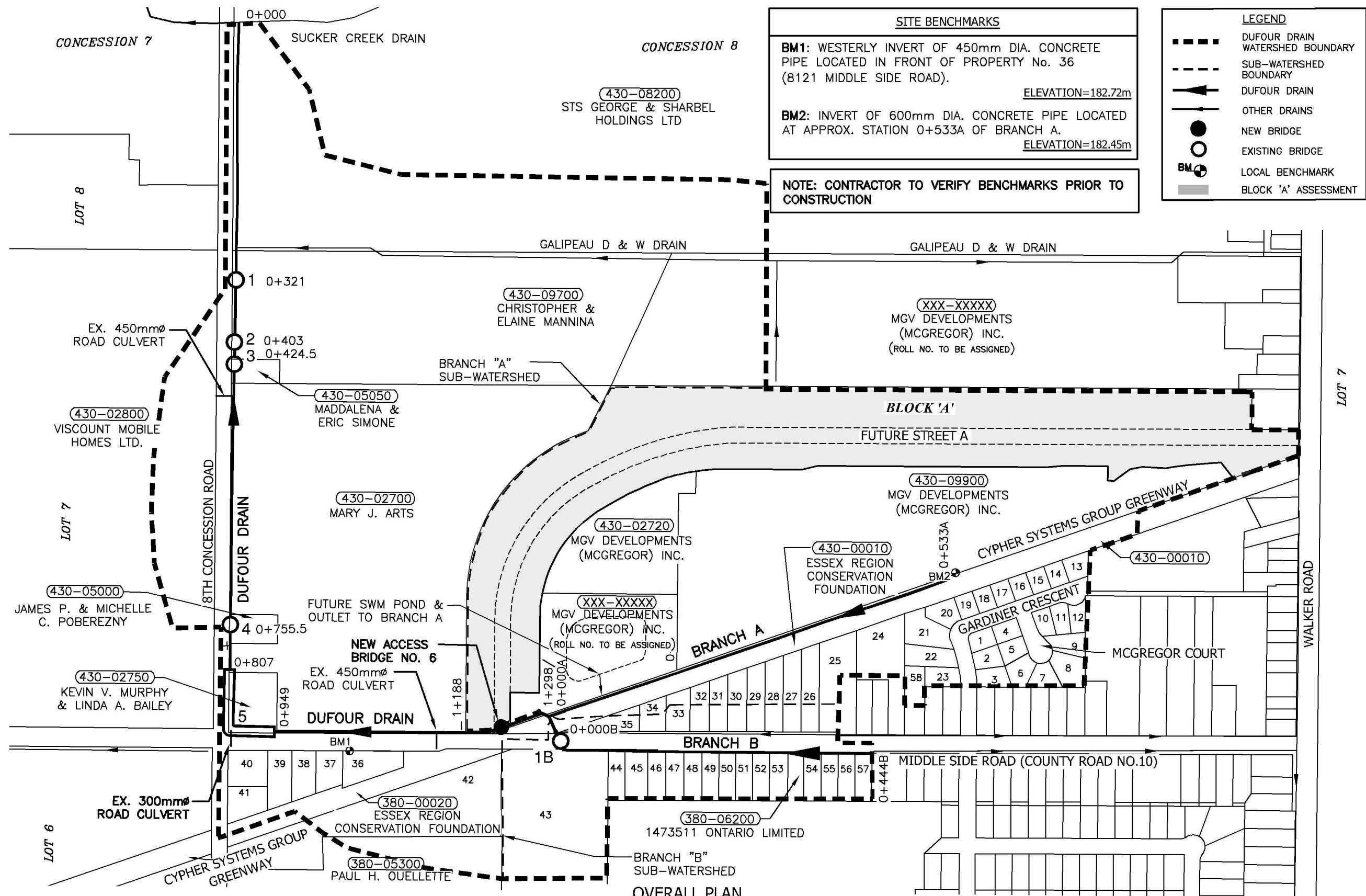
All work shall be carried out to the satisfaction of the Drainage Superintendent for the Municipality, in compliance with the specifications, drawings and the Drainage Act. Upon completion of the project, the work will be inspected by the Engineer and the Drainage Superintendent. Any deficiencies noted during the final inspection shall be immediately rectified by the Contractor.

Final inspection will be made by the Engineer within 20 days after the Drainage Superintendent has received notice in writing from the Contractor that the work is completed, or as soon thereafter as weather conditions permit.

17.0 FISHERIES CONCERNS

Standard practices to be followed to minimize disruption to fish habitat include embedment of the culvert a minimum 10% below grade, constructing the work 'in the dry' and cutting only trees necessary to do the work (no clear-cutting). No in-water work is to occur during the timing window unless otherwise approved by the appropriate authorities.

Jun 15, 2022 - 10:58am C:\pwworking\directory\projects\2021\33oem\dms78012\212982-03-DRN-CON-UPDATED REPORT-CITY.dwg



SITE BENCHMARKS

BM1: WESTERLY INVERT OF 450mm DIA. CONCRETE PIPE LOCATED IN FRONT OF PROPERTY No. 36 (8121 MIDDLE SIDE ROAD). **ELEVATION=182.72m**

BM2: INVERT OF 600mm DIA. CONCRETE PIPE LOCATED AT APPROX. STATION 0+533A OF BRANCH A. **ELEVATION=182.45m**

NOTE: CONTRACTOR TO VERIFY BENCHMARKS PRIOR TO CONSTRUCTION

LEGEND

- DUFOUR DRAIN WATERSHED BOUNDARY
- - - SUB-WATERSHED BOUNDARY
- DUFOUR DRAIN
- OTHER DRAINS
- NEW BRIDGE
- EXISTING BRIDGE
- BM ○ LOCAL BENCHMARK
- BLOCK 'A' ASSESSMENT



OVERALL PLAN
1:5,000

'SCHEDULE G'



Conditions of Use

Verify elevations and/or dimensions on drawing prior to use. Report any discrepancies to Dillon Consulting Limited.

Do not scale dimensions from drawing.

Do not modify drawing, re-use it, or use it for purposes other than those intended at the time of its preparation without prior written permission from Dillon Consulting Limited.

No.	ISSUED FOR	DATE	BY
2	FINAL REPORT SUBMISSION	15 JUN 22	TRO
1	CLIENT REVIEW	14 JUN 22	TRO

DESIGN	REVIEWED BY
TRO	JJT
DRAWN	CHECKED BY
MA	MDH
DATE	June 15, 2022
SCALE	AS SHOWN

DILLON CONSULTING

PROJECT NO. 21-2982

DRAWING SCALES BASED ON A 11" X 17" SHEET

Drainage Report for
NEW ACCESS BRIDGE OVER THE DUFOUR DRAIN FOR
MGV DEVELOPMENT (MCGREGOR) INC.
Town of Amherstburg

OVERALL PLAN

PAGE NO. 1 of 3

DUFOR DRAIN PROPERTY INFORMATION		
PARCEL	ROLL NO.	OWNER
1	430-00806	MARK A. PSZCZONAK & ROBYN J. NEASE
2	430-00804	CHERIE H. DROUILLARD & RICHARD J. & DEBORAH A. DROUILLARD
3	430-00802	MATTHEW B. & HEATHER E. ALLISON
4	430-00808	MATTHEW F. CHARLEBOIS & CRYSTAL M. BARRON
5	430-00810	ADAM J. LUCIER
6	430-00812	WALLACE N. & ROSEMARY K. CHARETTE
7	430-00814	LINDSAY CHARETTE & MICHAEL DEYOUNG
8	430-00816	IGOR VARGA & SHIRLEY COUCH
9	430-00818	KEVIN & PENNY VELDHIJS
10	430-00820	JODY A. & MELISSA D. FLEMING
11	430-00821	NISTOR & LIVIA SASCA
12	430-00822	RICHARD H. & PATRICIA J. PRIEUR
13	430-00826	DAVID W. & TERESE A. PITT
14	430-00828	ROBERT J. & IRENE A. MCFARLANE
15	430-00830	KENNETH & MARIE ALLEN
16	430-00832	JOHN F. & JANINE N. WILLET
17	430-00834	JEROME & VICTORIA PARDO
18	430-00836	PAULA C. CHARLEBOIS
19	430-00838	ANTONIO & THERESA PIETRANGELO
20	430-00840	MAREK & MARIOLA PIOTROWSKI
21	430-00842	IZIDOR & MITZI FUJS
22	430-00844	ALLEN C. & LORI A. STEWART
23	430-00846	ALLAN J. & ALLAN C. & LORI STEWART
24	430-01200	JASON J. & MICHELLE T. BULLARD
25	430-01500	CHERYL L. MAJOR & LINDA A. BONDY
26	430-01600	THOMAS J. & KAREN RENAUD
27	430-01700	NELSON F. DROUILLARD
28	430-01800	YOLLANDE MCINTYRE
29	430-01900	ADAM J. & CANDACE R. HAMMOND

DUFOR DRAIN PROPERTY INFORMATION		
PARCEL	ROLL NO.	OWNER
30	430-02000	GILBERT H. BEAULIEU
31	430-02100	DANIEL J. & MARGARET J. LEITHEAD
32	430-02200	WANDA J. GAGNON & ROBERT H. DISHMAN
33	430-02300	STEPHEN P. SKOV
34	430-02400	HYDRO ONE NETWORKS INC.
35	430-02500	KENNETH H. HOLDEN
36	380-06000	BRIAN J. & CHRISTINE G. BEATON
37	380-05905	GREGORY G. GIRARD
38	380-05900	KYLE P. KRIZAN
39	380-05800	GRANT E. CHITTIM & ANDREA ELAINE
40	380-05700	DANTE & MARISA DELRIZZO
41	380-05600	ENRICO J. & KRISTA M. TRUANT
42	380-05400	JEFFREY TALES & JAMI L. REAUME
43	380-06100	JOSEPH MICELI
44	380-06228	JUSTIN M. KILMOWICS & EMILY M. HILLMAN
45	380-06229	JOHN T. & SANDRA M. AMATO
46	380-06230	HENRY & DEBORAH A. SCHWAGER
47	380-06231	MARTIN E. A. & COLLEEN B. NELSON
48	380-06232	MARY ANN E. PAPIA ARCE
49	380-06233	JESSE & KELLY BONE
50	380-06234	TRAVIS W. R. & TINA B. MIDDLETON
51	380-06235	ROGER H. & SHEILA A. BAILLARGEON
52	380-06236	SARAH CHERIAN
53	380-06237	SCOTT R. WARNOCK & PIERETTE A. WRAY
54	380-06238	DEREK R. & JENNIFER M. AIKEN
55	380-06239	DAVID CVETANOVSKI
56	380-06240	COMMUNITY LIVING ESSEX COUNTY
57	380-06241	BEVERLY A. SANTIN & NELSON J. ROCHELEAU
58	430-01100	BARBARA BELLEMORE & BETTY JANE BELLEAU



Conditions of Use


Verify elevations and/or dimensions on drawing prior to use. Report any discrepancies to Dillon Consulting Limited.

Do not scale dimensions from drawing.

Do not modify drawing, re-use it, or use it for purposes other than those intended at the time of its preparation without prior written permission from Dillon Consulting Limited.

2	FINAL REPORT SUBMISSION	15 JUN 22	TRO
1	CLIENT REVIEW	14 JUN 22	TRO
No.	ISSUED FOR	DATE	BY

DESIGN	TRO	REVIEWED BY	JJT
DRAWN	MA	CHECKED BY	MDH
DATE	June 15, 2022		
SCALE	AS SHOWN		



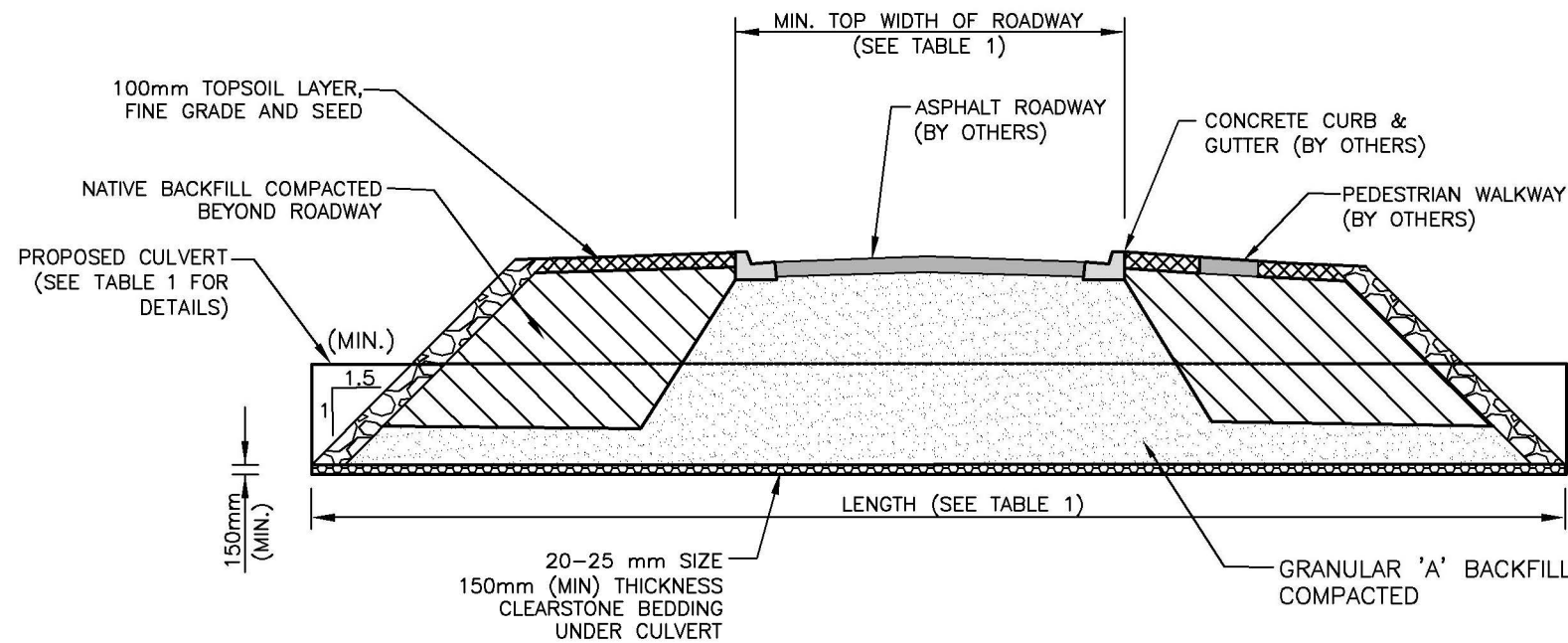
PROJECT NO. 21-2982
DRAWING SCALES BASED ON A 11" X 17" SHEET

Drainage Report for
NEW ACCESS BRIDGE OVER THE DUFOR DRAIN FOR
MGV DEVELOPMENT (McGREGOR) INC.
Town of Amherstburg

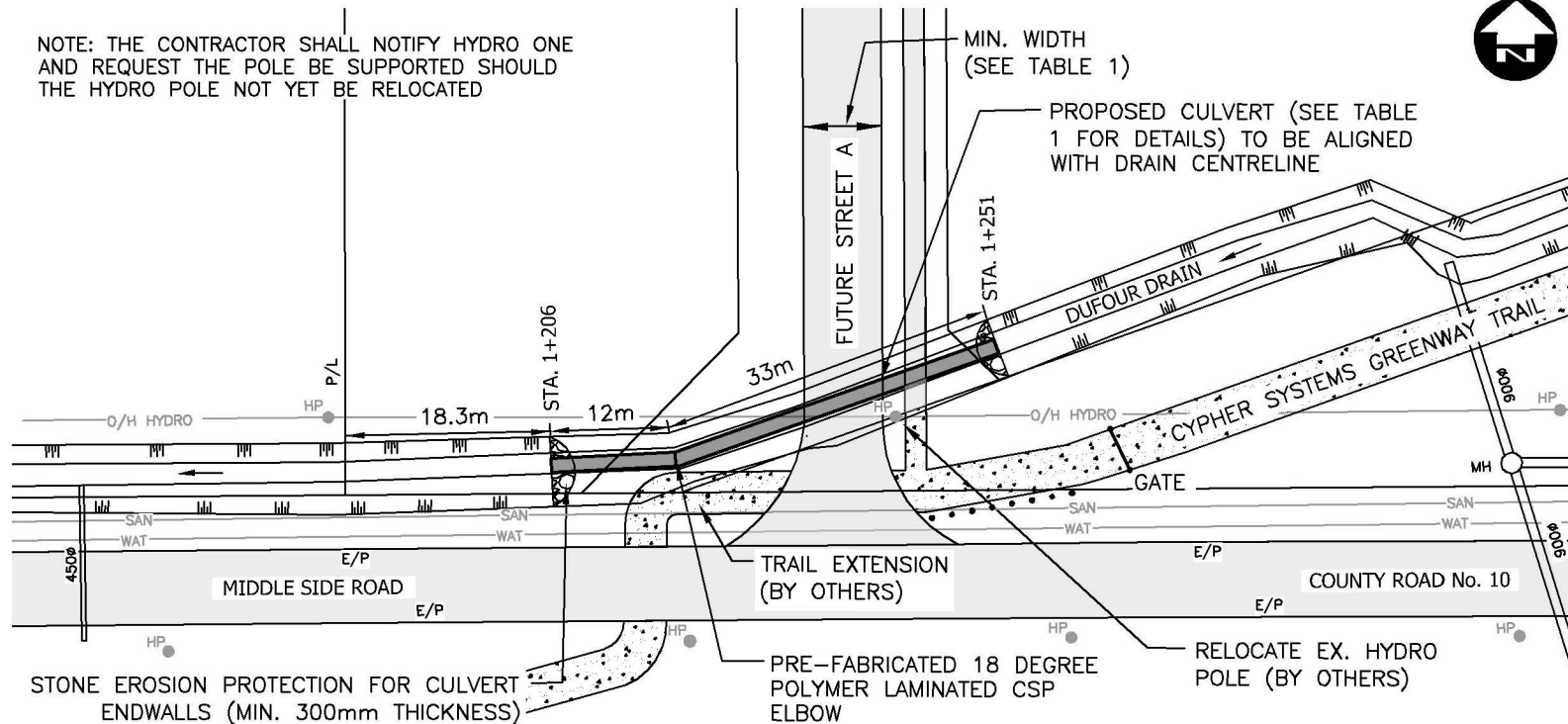
SHEET TITLE
PROPERTY INFORMATION

PAGE NO.
2 of 3

Jun 15, 2022 - 10:58am C:\pwworking\directory\projects\2021\330eem\dms78012\212982-03-DRN-CON-UPDATED REPORT-CITY.dwg



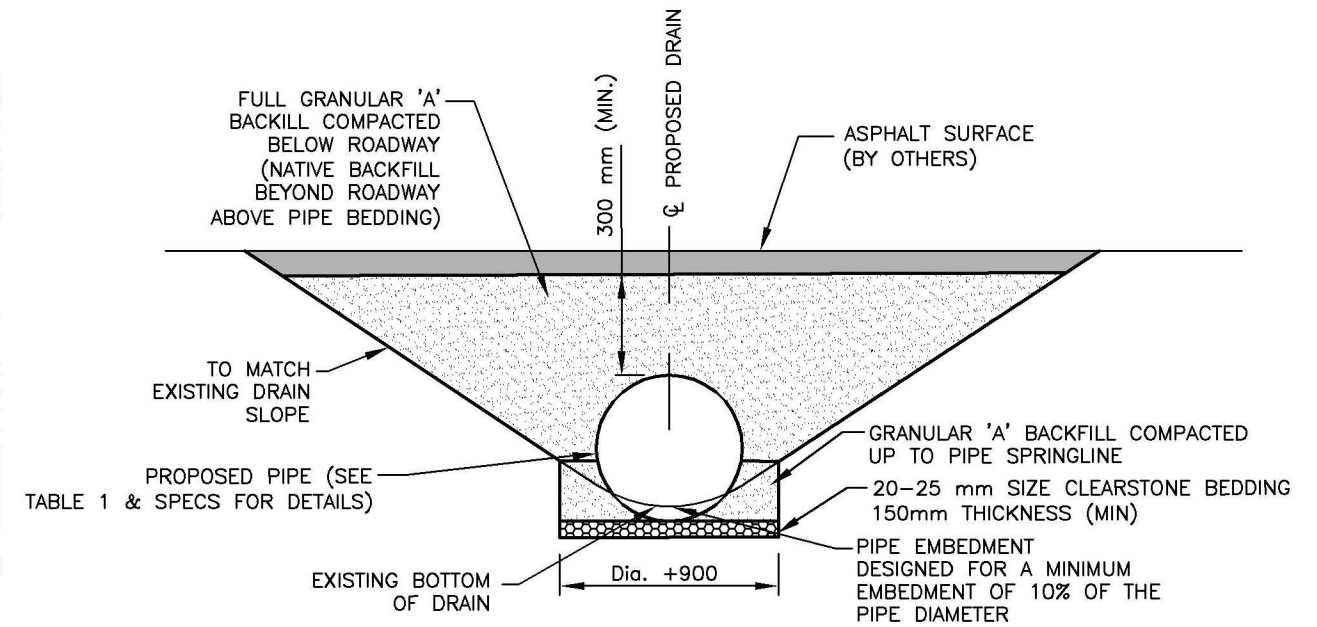
LONGITUDINAL SECTION
N.T.S.



BRIDGE No. 6 PLAN
N.T.S.

TABLE 1 - ACCESS BRIDGE DESIGN INFORMATION	
DESCRIPTION	BRIDGE No. 6
BRIDGE LOCATION (STA.) \bar{C}	1+228
PIPE INVERT ELEV. U/S SIDE (m)	181.70
PIPE INVERT ELEV. D/S SIDE (m)	181.65
TOP OF ROADWAY SURFACE ELEV. (m)	183.74
DRAIN BOTTOM (m) (DESIGN) (AT CENTRELINE OF CULVERT)	181.82
ROADWAY WIDTH OF STREET A (m) (BACK OF CURB)	9.0
MIN. CULVERT GRADE (%)	0.10
PIPE SIZE (mm)	1400
CULVERT TYPE	C.S.P
CULVERT MATERIAL	POLY LAM.
CULVERT LENGTH (m)	45.0
CULVERT THICKNESS (mm)	2.8
CULVERT CORRUGATIONS (mm)	125X25
CULVERT END WALL TYPE	SLOPING

NOTE: CONTRACTOR IS RESPONSIBLE TO ARRANGE UTILITY LOCATES PRIOR TO CONSTRUCTION



CROSS SECTION
N.T.S.



Conditions of Use

Verify elevations and/or dimensions on drawing prior to use. Report any discrepancies to Dillon Consulting Limited.
Do not scale dimensions from drawing.
Do not modify drawing, re-use it, or use it for purposes other than those intended at the time of its preparation without prior written permission from Dillon Consulting Limited.

No.	ISSUED FOR	DATE	BY
2	FINAL REPORT SUBMISSION	15 JUN 22	TRO
1	CLIENT REVIEW	14 JUN 22	TRO

DESIGN	TRO	REVIEWED BY	JJT
DRAWN	MA	CHECKED BY	MDH
DATE	June 15, 2022		
SCALE	AS SHOWN		

PROJECT NO.	21-2982
DRAWING SCALES BASED ON A 11" X 17" SHEET	

'SCHEDULE G'

Drainage Report for NEW ACCESS BRIDGE OVER THE DUFOR DRAIN FOR MGV DEVELOPMENT (McGREGOR) INC. Town of Amherstburg	
SHEET TITLE BRIDGE No. 6 DETAILS	
PAGE NO.	3 of 3