TOWN OF AMHERSTBURG
DRAINAGE BOARD
MINUTES

Tuesday, August 13, 2024
6:00 P.M.
Council Chambers, 271 Sandwich St South

PRESENT Allan Major
Murray Sellars
Brian Renaud
Anthony Campigotto
Sam Paglia, Drainage Superintendent/Engineering Coordinator
Nicole Humber, Recording Secretary
Kevin Fox, Municipal Clerk

ABSENT Brad Laramie

1. CALL TO ORDER

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

2. ROLL CALL

3. DISCLOSURE OF PECUNIARY INTEREST & GENERAL NATURE THEREOF

Board Member Brian Renaud advised he owns property on the Deslippe Drain and will have to excuse himself from participating in item 8.3.

4. LAND ACKNOWLEDGEMENT

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

5. MINUTES OF PREVIOUS MEETING

Allan Major moved, Murray Sellars seconded;

THAT:

The minutes of the previous meeting BE ADOPTED:

1. Drainage Board Meeting Minutes – August 13, 2024.

Motion Carried

7. CONSIDERATION OF THE PRELIMINARY DRAINAGE REPORT

7.1 Shipman Drain Preliminary Report (2024)

Josh Warner, P.Eng of R. Dobbin Engineering Inc. addressed the Board and advised that a request for the Shipman Drain had been submitted under Section 78 of the Drainage Act. Mr. Warner stated that the Shipman Drain is a twin drain that drains both north to the River Canard and south to the Long Marsh Drain. The drain consists of 250 mm diameter tile at the top end of both drains and has a 400 mm diameter drain that outlets into the River Canard and a 300 mm diameter drain that outlets into the Long Marsh Drain. The drain was

initially constructed in 1962, and was then improved in an Engineer's Report dated in 1969. The drain improvements commenced on the south side of South River View. The drain was twinned with the same size tile and same lengths as under the 1962 report and was to be known as the Shipman Drain No. 2. The drain was to run west of the present drain and approximately 6 ft east of the line of hydro poles on the east side of Concession 2 N. Mr. Warner advised that the Shipman Drain has been repaired numerous times by Town Staff over the years and determined to be in poor condition. The drain also continues to sit with water due to water levels in the adjacent water bodies. Mr. Warner explained the three options outlined in the preliminary report. They are:

Option 1

Storm system all draining south to the Long Marsh Drain complete with a pump station. Draining all lands north to River Canard was reviewed, but it was determined that the south option had fewer utility conflicts and would result in a better location for a pump station and lower costs for the watershed. The estimated cost is $613,985.00, but would depend on features such as back-up power generator, backflow preventer, and notification systems etc.

Option 2

Storm system all draining south on the east side of the road to the Long Marsh Drain without a pump station. This option provides improved drainage for the area, but will still be impeded by the water levels in the adjacent bodies of water. This option does allow for the potential of a pump station in one location in the future. The estimated cost is $477,815.00.

Option 3

A split storm system along the east side of Concession 2 N with some of the water draining north and some of the water draining south. This option is replacing the entirety of the existing system, except the privately replaced portion of the system remains, contingent on a video inspection. This option represents the lowest price option but does not solve the systems reliance on the local water levels and would likely require two pump stations should they be investigated in the future. The estimated cost is $433,289.00.

Mr. Warner stated that he is recommending Option 1 as it will eliminate reliance on the surrounding water bodies, followed by Option 2 because should a pump station be required in the future, it would result in one pump station rather than two with the split drainage system that is included in Option 3. Mr. Warner advised he is looking for direction from the Board members as to which option should be pursued as part of the Shipman Drain report.

Board Chair Anthony Campigotto asked if anyone in the gallery would like to address the Board.

The Board heard from:

- **Tony Simon – Owner of a farm parcel on the Shipman Drain**

Mr. Simon advised that when the project started a few years back, the Drainage Superintendent at the time informed him the project was a simple project and there was no mention of a pump station. Mr. Simon was concerned with the project becoming so large scale and the hardship it will be to all of the landowners from this project, as his assessment alone for his farmland is $74,000.00. Mr. Simon would like the drain restored to its original grade, as it worked with one of his other farms approximately 10 years ago. Mr. Simon provide the Board with the example of when a Drainage contractor dug up tiles in a covered drain on one of his farms and reset them to grade, resulting in a cost of $33,000.00. Mr. Simon paid for the entire cost of the work at that time.

Mr. Paglia explained that the basic resolve to the drain is Option 3, which would reinstate the drain going to the north and the south, at the cost of $433,289.00. Mr. Paglia stated that the reality is that there has been no improvement works done to the Shipman Drain since the 1960's. The Town had completed some repair work on the drain last year repairing a buried portion of the drain on Mr. Simon's farm, and discovered that part of the drain was completely buried. When it was restored, it was noted that the pipes that exist were at least 95% full of sediment, and there were further failures elsewhere on the drain. This was translated to the road authority, and according to the Drainage Act the Road Authority is treated no different than any other landowner, but the obligations and responsibility increase when talking about a Roads and their need for proper drainage. The Road Authority is bound by statute law to safely convey storm water to a sufficient outlet, and in this case the road is requiring drainage as there is no drainage system in that is currently functioning. Mr. Paglia stated that he did not want to disrespect his predecessor, however this work required on the Shipman Drain is not a simple fix, as it is a drain that has not been maintained partially over the years, and not fully repaired. The band-aided repairs as what has been competed over the years is not the correct approach when Council appoints an engineer to examine a drain and produce a report. There are options to choose from regarding the level of drainage the landowners would like to have to restore drainage in the area with options for a better level of service potentially. Mr. Paglia mentioned that the Town is heavily assessed in this project in all three options for its road and agrees with option 1 in the report as the best solution to the drainage problems in the area.

Mr. Paglia explained benefit, special benefit, and outlet liability to the landowners. Mr. Paglia advised that Mr. Simon's property would be assessed as agricultural lands and potentially be eligible for a grant through the

Agricultural Drainage Infrastructure Program (ADIP) from the Ministry of Agriculture, Food and Rural Affairs (OMAFRA), and as a result, would only be assessed 67% of the $74,000.00 assessment.

Mr. Paglia indicated that landowners need to be aware of their surroundings etc. when they purchase a property so they are aware of their responsibilities and liabilities as homeowners. Mr. Paglia noted that the three options before the landowners and Board today have estimated costs only, and once an option is chosen by the Board and landowners, the process will begin for preparation of a final drainage report, and adoption of that report by landowners, the Drainage Board and Council may then lead to the tendering process. Mr. Paglia further noted that the landowners want to pay attention to the ratio of costs in the report as that will be what is used when it comes to the final assessment.

Mr. Simon thanked Mr. Paglia for his comments and suggested that there should be an Option 4 that includes adding catch basins to the old grade of the initial drain.

A discussion ensued regarding the options and it was clarified that the option that Mr. Simon is looking for is Option 3, and that Option 4 would be to do nothing. Mr. Paglia stated that he did not believe doing nothing would be an option due to statute obligations of the Town, as the road must have drainage for Public safety.

Mr. Simon indicated he does not believe that the work proposed would be beneficial as his lands do not flood. Mr. Simon explained that the homes in the area were built on a marsh and those low-lying areas will take time to drain the water.

Mr. Paglia disagreed stating he has received numerous phone calls from landowners including Mr. Simon regarding flooding in that area and that the flood water stays in the area for days on end. Mr. Paglia agreed that the homes that were built were constructed in a low-lying area, however those landowners are still entitled to drainage.

Mr. Simon noted that the portion that the Town is assessed comes from the ratepayers, who are still the same landowners on the drains. Mr. Simon indicated that the Town of Lasalle does not handle drainage assessments the same way as the Town of Amherstburg does.

Mr. Paglia explained that the town of Lasalle has the Sandwich West Act that was enacted in approximately1961, and as such the City of Windsor has the Windsor Act that was enacted many years ago as well. These Municipalities

spent their money on these Acts for their specific municipality in order for them to complete drainage the way they wanted rather than under the Drainage Act. Mr. Paglia further explained that 65 years later both municipalities are now relying on the Drainage Act to fix the errors their own acts have created in the realm of fairness. The biggest difference with the Acts that the Town of Lasalle and the City of Windsor use is that they use the General tax levy to clean all of the drainage systems within the municipality and landowners are only responsible for the cost of culverts to access their lands. The Drainage Act states that everyone pays for the drainage that their lands require to take the storm water their land receives safely to a sufficient outlet. Mr. Paglia provided an example of cost sharing for culverts that a landowner needs to access their lands, upstream landowners water travels through and contributes to the deterioration of that culvert. The Drainage Act is much more sophisticated and the fairest piece of legislation for the management of storm water by statute law. This provides the right to unobstructed flows, where every other matter resulting in flow, is resolved through the courts under common law.

The Shipman Drain has been a municipal drain since the 1960's and has the absolute right to unobstructed flow, and the liability is fairly distributed to the users of that drain. this is something the Sandwich West Act and the Windsor Act do not have. Mr. Paglia explained that the Town of Amherstburg is paying a large portion of the project but the money to fund the Town's assessment comes from the general tax levy and all of the landowners in the municipality pay a portion of their taxes to provide drainage for the Towns lands and roads, and landowners individually through drainage bylaws pay only for their lands to drain specifically to the municipal drain that their water drains into and do not pay for the draining of other privately owned lands within the municipality

- **Stephanie Mongeau – 343 South Riverview**

Ms. Mongeau stated that when she looks at the map that was provided in the report, it appears that the vast majority of the work will happen on the west side of the road, and the landowners on the west side of the road will be benefitting from it. Ms. Mongeau added that there are properties that have pooling water, however it looks as if not all of the properties were included in the costs and questioned why some properties were included in the costs and some were not. Ms. Mongeau asked for an explanation as to how the red boundary lines came about and how it was determined which properties would and would not be included in the watershed.

Mr. Warner indicated the area was surveyed and the red outline is the drainage area, which represent the properties utilizing the drainage system. Mr. Warner explained that halfway between the red lines on the westerly side there is a catchbasin that collects stormwater from some lands and heads easterly and

connects into the Shipman Drain. The red outline on the west side has an obstruction of the driveway and from there it heads north to the River Canard, and south to the crossing. Additionally, the southerly limit has the same scenario, when surveyed showing that those lands do not utilize the Shipman drain drainage system, and therefore, are not within the boundary line of the watershed.

Ms. Mongeau requested clarification that the properties not included in the watershed would not be “benefiting” from the drain even though the drain will be stopping before those said properties.

Mr. Warner indicated that those properties were not assessed a direct benefit as the drain is not located directly on their property, so typically a benefit assessment would not be used, however they would be assessed an outlet assessment for utilizing the system.

Mr. Paglia thanked Ms. Mongeau for her question and added that engineers define the watershed by using past reports and by gathering new information during the public process of examination for a drainage system. Each landowner who uses the drain as an outlet for the stormwater their lands receives, is assessed in this case. Mr. Paglia asked Ms. Mongeau to provide an example to support her statement of how a landowner outside of the boundary would benefit from the existence of this drain.

Ms. Mongeau explained that the water pools on both sides of the road at the corner of Concession 2 N and South Riverview Drive and stated that if the drain was put in on the one side, the whole corner will benefit from the new drainage in place.

Mr. Paglia indicated the two parcels Ms. Mongeau was referring to are the northwest parcels by River Canard, and are cut off from drainage by the height of the road. Those lands are also riparian lands that use River Canard as an outlet. Mr. Paglia added that each drain is designed for a certain level of service. If the Shipman Drain is functioning to a certain level of service, there should be no effect to those lands. Whenever that level of service is surpassed, issues can arise where flood water may occur on parcels not using the drainage system or vice versa. However, if those properties are still flooding during the regular use of the drain and within its designed level of service, it may likely a result of their private drainage systems for their own lands. Currently, the overland flows and drainage system does not collect their stormwater as the engineer has indicated.

Mr. Warner explained it was determined that the northwesterly properties are not part of these drainage works, therefore any improvements to this drainage

area would not be beneficial to those lands, and the water would continue to pool there as it has.

- **Ed Monforton – Owner of a farm parcel on the Shipman Drain**

Mr. Monforton advised he purchased his farm parcel approximately 11 or 12 years ago, and when he purchased the lands, the tile across the property was plugged and broken. Mr. Monforton stated that Mr. Chamberlain (former Drainage Superintendent) kept advising him that there was no money in the budget to repair the pipe, and ultimately Mr. Chamberlain gave permission to Mr. Monforton to repair the pipe, which was done at his own cost. Mr. Monforton installed an 18" smooth plastic wall pipe and since then has retiled the farm. Mr. Monforton stressed he would hate to disrupt the success of the improvements he has made with the drainage work that is recommended. Mr. Monforton indicated that in his experience when you tile into a main tile line with all the connections it doesn't drain the same. Mr. Monforton added that when it comes to drainage he will spend every dollar he can, but would like his dollar back in crop return.

Mr. Paglia asked Mr. Warner to speak on the HDP pipe Mr. Monforton was referring to.

Mr. Warner explained option 3 in his preliminary report outlines keeping the tile in place through Mr. Monforton's property, pending a video inspection. Mr. Warner further explained that with the current grade going north, and the recommendations in the report for options 1 & 2 show the drain going to the south, the pipe on Mr. Monforton's property could be utilized if one of those options are chosen and the pipe is inspected, and found to be in good condition. Mr. Warner also noted that this pipe installation was not performed under report.

Mr. Monforton spoke about the re-direction of the water flow.

Mr. Warner indicated that he wanted to receive direction from the landowners and the Drainage Board on how to proceed before spending money to video inspect the pipe under option 3, as the other options would not require a video inspection.

There was a discussion regarding Mr. Monforton's drainage on his property and other farms he owns.

Mr. Paglia explained that the purpose of the meeting was to choose a way forward as outlined in the preliminary report, and would accept the comments from the landowners and Board Members to determine a choice or direction.

Mr. Paglia reiterated the option Mr. Monforton is looking for is Option 3 in the preliminary report which is to restore the current alignment, and slopes for the Shipman Drain.

- **Stanislaw Wieclaw – 2149 Concession 2 N**

Mr. Wieclaw indicated that his property is located next to Mr. Simon's farm and he moved to his property in 2016. Mr. Wieclaw explained that he has spent a lot of money over the years trying to repair water damage, and Mr. Simon allowed him to increase the height of the lands on his property which solved some of the problem. Mr. Wieclaw added that since the tile was repaired and the Town performed cleaning prior to the road reconstruction, one side of the drain goes south and the other side goes north. Mr. Wieclaw noted that his neighbour Mike Adamo has not had any problems either since the repairs were made. Mr. Wieclaw mentioned that there used to be a problem and now that the drain has been flushed, there is no problem with the drain. Mr. Wieclaw questioned why was the drain was not repaired prior to the road reconstruction, and now he is assessed $5,000 in special benefit because he has a piece of asphalt at the end of his driveway. Mr. Wieclaw indicated that he moved from the London area, and has put too much money into this house. Mr. Wieclaw stated that since Covid-19 his business is struggling, and he does not have the funds to pay for this drainage project.

Mr. Paglia advised he would try to answer all of Mr. Wieclaw's questions that were posed. Mr. Paglia stated that with respect to the road resurfacing on the Concession, the project was stopped and delayed by about 2-3 months because when the request was starting for this drainage project, that project was ready to go to tender. The Town investigated and all of the crossings that exist along the 2nd Concession N were inspected if not replaced so that the road did not have to be torn up for culvert replacement after the road was reconstructed. The drainage work proposed on the Shipman Drain is mainly on the east side of the road to provide drainage. Mr. Paglia further stated that with respect to Mr. Wieclaw's comment about the drainage for his property working now, the drain is working because there is more capacity as a result of flushing of the drain necessary for a video inspection, but there are several collapses in the system and although, ultimately water will find its way, the system is underperforming to its intended design. Mr. Paglia noted that there are two known failures that exist today in other locations along the drains alignment and there are likely broken or cracked pipes as inspected when the repairs were made in 2023. Mr. Paglia explained that there are cracked pipes that are full of sediment during the repair in 2023, and even though it appears there are no longer any issues with the drainage, it doesn't mean that the drain is functioning as it should. Mr. Paglia added that the purpose of the request and preliminary report for the Shipman Drain is for the engineer to examine the drainage area

and provide drainage and/or restore the drainage as it was intended based on the bylaw from 1964.

Mr. Paglia stated that if the Shipman Drain was not a municipal drain, a ditch would have been installed during road reconstruction, and that ditch would typically be owned by the road. Mr. Paglia further stated that the current drainage that is there on the east side of the concession does not belong to the road, it belongs to the community of landowners who use it, and the Road Authority is a user of the drain. In this case, the Road Authority is requesting drainage, and will be paying their fair share of an assessment for the recommended works to restore the drain.

Mr. Wiesclaw explained that residents have waited for years for Concession 2 N to be reconstructed, and feels he should not have to pay the assessment for asphalt.

Mr. Paglia noted that the Road Authority requires drainage, and at any time a landowner can put in a request to the Town to have the drain cleaned as an outlet or to repair and maintain the system. Mr. Paglia explained that the Town did not have a request from any landowner, and is likely the reason that the drain is in disrepair. Mr. Paglia added that there are approximately 280 kms of municipal drains in the Municipality with engineers reports and bylaws attached to them, and it is physically impossible to maintain all of the drains all of the time. Mr. Paglia further added that the Town relies heavily on landowners submitting requests for drainage and getting the work completed, and the drainage system's current condition is a direct result from not only the landowners putting in a request, but the Town not having the resources or request to do anything other than spot repairs for the last 60 yrs.

Mr. Paglia stated that it can be decided today to continue to do nothing to the drain, however his experience as a Drainage Superintendent and Council's obligation to repair the drain, suggests we could be back in two years with another landowner request and the costs would be substantially higher than they are now. Mr. Paglia explained that the choices today are to agree on a path forward, but the path forward has to exist for the benefit of all the landowners. It was mentioned the Town and engineer would conduct as many meetings as it is necessary with the affected landowners in order to resolve the drainage issues in the area, but ultimately, there needs to be a path forward to restore the drainage system.

Mr. Wieclaw explained how he did not feel his property benefitted from the project, and there are others on the drain who will also not benefit. Mr. Wieclaw did not agree with the Town's position of waiting for a landowner to call for work to be completed on the drain.

Mr. Paglia noted that the Drainage Act is very clear and by order of the Referee under Section 79, Council has no choice but to provide the funds required to the Finance Department to pay for drainage works. Mr. Paglia further added that if a former Drainage Superintendent informed Mr. Wieclaw that there were no funds to repair the drain, that was incorrect. Municipalities often, do not have the resources to complete all of the necessary drainage works pro-actively and heavily rely on requests from landowners.

There was a discussion regarding the Town's stance on the Drainage Act and drain cleaning.

- **John Tedesco – On behalf of his daughter at 341 South Riverview**

Mr. Tedesco indicated that his daughter has lived at her home at 341 South Riverview for between approximately 10 and14 years, and the water always floods over the road from where Concession 2 N starts and to the corner. Mr. Tedesco asked which way the water flowed on parcel # 13 and if they should be included in the drainage area.

Mr. Paglia stated through a Superintendent's standpoint, the watershed boundaries should snap together across the Province, and if a property is not in this watershed it should be draining into another watershed (at least on paper). Mr. Paglia asked Mr. Warner to provide additional comment, but added that engineer's typically go by other engineers reports or past reports that already have defined the watershed boundaries, but utilize the examination process and landowner comments to investigate areas that arise during an examination. Mr. Paglia indicated that if there are changes that are required to be made, that now is the time to make those changes as an engineer is appointed, but cautioned and advised that if changes are made to one watershed then changes will likely be required to be made to another watershed.

Mr. Warner indicated there is a drain northeasterly of the drainage area outlined in this report and drains those lands to the east. This report assisted in establishing the watershed. That drain is relatively new, and has gone through the procedures to establish the boundary within the last 20 years.

Mr. Paglia stated that the drain Mr. Warner is referring to is the Beneteau Drain, which is the drain parcel 13 would be assessed into.

Mr. Tedesco reiterated that his concern is every time it rains and the water pools over that property, flooding the road and signs have to be installed. Mr. Tedesco questioned what would be done in front of the 500-600 ft fronting South Riverview. Mr. Tedesco asked if a French drain or something would be

put there, because when some work was done a few years ago and a catchbasin was installed in front of the home on the corner, but it did not help anything. All of the water is going to the corner of Concession 2 N and South Riverview Drive and nothing was ever addressed from Concession 2 N to the boundary line in the watershed.

Mr. Paglia advised that drainage systems have a level of service, and the Drainage Act mandates that all municipal drains are designed to a minimum 1:2 rain event, which is 50% of all rain events we receive. Mr. Paglia explained how the rain event rating is established and the premise behind it. Mr. Paglia stated the Beneteau Drain and Shipman Drain are designed for 1:2 rain events. When a rain event is in excess of this we will see flooding as the systems are not designed for that amount of water. Mr. Paglia noted that Conservation Authority approval was not in place for any event greater than the 1:2 20 years ago. Today, permission from the conservation authorities will ensure that that engineers are designing drainage systems for the conveyance of water from a 1:2 rain event but also, the containment of stormwater for the 1:100 year rain event. Mr. Paglia further noted that may not apply here because of the pump system, however when dealing with open drains the drain cross section has to be able to carry the water that falls in the1:100 year event but move the water as it would in a 1:2 year event. Mr. Paglia stated that flooding on the road indicates a malfunctioning drainage system or that the rain event has exceeded the capacity of the drainage system. In this case, the Shipman Drain is close to two water bodies, so with water level changes unfortunately we are in a position of flooding as a result of the level of lands in the area as well as the level of water in the outlet bodies.

Mr. Paglia talked about the possibility of the engineer investigating and redefining the watershed boundary to see if parcel 13 does in fact contribute, by using tools such as past engineer's reports that already have established watershed boundaries, LIDAR and finding out topography to see where the water goes without spending a lot of money looking into it.

Mr. Tedesco wants everyone to ask themselves if the drainage works are needed. He would like to see the drainage works proceed as it is needed, and would also like to see the landowners get the best bang for their buck. Mr. Tedesco suggested there may be a possibility to receive a grant from the Provincial or Federal governments as it is an election year.

Board Chair Anthony Campigotto asked if there was anyone else in the gallery that would like to speak.

There were none.

Board Chair Anthony Campigotto asked if any of the Board Members had any questions. The Board heard from:

- **Board Member Brian Renaud**

Mr. Renaud asked Mr. Monforton and Mr. Simon how the drainage for their farms are currently. Mr. Monforton advised his farm drains very well since he replaced the tile at the front of the farm and retiled his entire farm.

Mr. Renaud asked for clarification on the acreage of Mr. Monforton's property that drains into the Shipman Drain. Mr. Monforton advised the Board 22 acres drain into the Shipman Drain and 6 acres drain into the Beneteau Drain. Mr. Renaud asked for the length of the Shipman Drain, and if the drain was an open drain. Mr. Warner advised the Shipman Drain is approximately 560 meters in length, and the proposed works would be entirely a covered drain. Mr. Renaud stated that the cost of the project does appear expensive, however if the drain is completely covered it makes sense for the expense.

Mr. Paglia indicated that if Mr. Monforton retiled his lands after the adoption of the Remi-Beneteau Drain and before the adoption of the Shipman Drain, it warrants a change in boundary lines. The acreage the engineer is representing in this report comes from the 1960 or 1965 engineers report for the Shipman Drain. Mr. Paglia added that since the field was retiled it sounds like the boundaries need to be looked into. Mr. Paglia noted that OMAFRA releases best management practices and understands the importance of drainage for farms, and that good drainage typically results in a 20-30% increase in crop yields.

Mr. Renaud asked if the report had to be sent back to the engineer or if the Board can vote on it as it is.

Mr. Paglia explained that the preliminary report before the Drainage Board is vague and preliminary in nature for economic reasons. The engineer has dug deep enough to provide options, but not deep enough to spend a lot of money and resources until an option is chosen. Mr. Paglia added once an option is chosen, and during the remaining examination of the drain, the video of the existing pipe and the defining of the watershed boundary can occur. The next report the Board receives from the engineer will be the final report with the chosen option and will included the actual estimates for the work that is recommended for that option. If the watershed boundary changes, the assessments would change accordingly.

Board Member Brian Renaud stated that the drain is 60 years old and worked fine, based on landowner comments and was not sure if the pumping stations

are a necessary addition or expense. Mr. Renaud put forth a motion to select option No. 3 in the preliminary report.

- **Allan Major – Vice-Chair**

Mr. Major stated that lack of drainage on the Shipman Drain for the past 60 years does not only fall on the Town of Amherstburg, but also the Township of Anderdon prior to amalgamation.

Brian Renaud moved, Murray Sellars seconded;

THAT:

1. **The engineer's preliminary report, prepared by R. Dobbin Engineering Inc. dated July 17, 2024 for the improvements to the Shipman Drain (2024) BE RECEIVED;**

2. **The engineer's preliminary report for the improvements to the Shipman Drain (2024) BE CONSIDERED;**

3. **The appointed engineer PROCEED with Option 3, and prepare a final report for the improvements to the Shipman Drain.**

Motion Carried

7.0 RE-CONSIDERATION OF THE FINAL DRAINAGE REPORT

7.1 General Drain (2024)

Mr. Warner, P.Eng provided an overview of the reconsidered General Drain (2024) report. Mr. Warner indicated that the initial final report was referred back for reconsideration at the meeting to consider on June 4, 2024. Following that meeting, a meeting was held onsite with the landowners. It was discussed at the onsite meeting that the lower end of the drain will be flushed and videoed, and that the owner of parcel 9 did not want the drain to continue through their lands and indicated that they are consulting with a third party to evaluate the proposed project. There were subsequent discussions and correspondence on questions with representatives of parcel 9 which Mr. Warner believed were all addressed to date. As a result, the proposed drainage report closely matches

the original report with some repairs to the drain in the lower end and additional rip rap in the channel. The report proposes the incorporation of the existing infrastructure which include:

- (2) 450 mm diameter storm sewers outletting into the Detroit River complete with minor repairs,
- Rip rap channel from station 0+016 to 0+028 complete with minor repairs,
- 900 mm diameter and 750 mm diameter pipes and catchbasins under Sandwich St N
- 142 meters of open channel
- 2010 x 1530 mm diameter corrugated steel pipe arch to be completed at station 0+196.

The report also proposes improvements as follows:

- 17 meters of 600 mm concrete pipe to the outlet of the Detroit river to accommodate the required design level for the watershed, and assist in containing the 1:100 event.
- Channel adjacent to the properties with index 3 & 4 shall be moved off and placed on the property with index #6 to allow for development.
- As part of the move off one private culvert shall be removed and one shall be replaced and relocated.
- A forcemain shall be installed to the open channel to service the properties with index 10-15.
- The storm sewer shall be installed from the channel to the north property line of index 4, in order to service future development of the properties with index 3 & 4.

The total estimate of the project is $504,000.00.

Mr. Warner explained that there has recently been correspondence with the Ministry of Environment, Conservation and Parks (MECP) regarding the proposed channel move off of parcel 3 & 4, and indicated that there may be some concerns in terms of contaminated soil. Further discussion will be forthcoming and approvals are necessary before work can proceed to construct the new channel on the potentially contaminated soil. As of the date of this meeting, we are awaiting a response from Jacobs who manages the property and MECP with regard to this item.

The drainage report also includes a breakdown of allowances, assessments, provisions for maintenance working areas, drawings, and construction specifications.

Board Chair Anthony Campigotto invited Sam Paglia to speak.

Mr. Paglia re-iterated that the report changed slightly from the initial report, and as Mr. Warner mentioned an onsite meeting was held as directed by the Board with affected landowners to discuss matters relating to the initial design, and that the subsequent discussions between the Town, Engineer and MECP with respect to the potential for contaminated soils. Mr. Paglia further stated that he believed Mr. Warner has addressed at least the soil movement under excess soils regulations in the report, but there remains the discussion of constructing an open channel on contaminates soils, so further discussion is necessary with MECP to ensure there is no adverse effect on any landowners within the watershed. Mr. Paglia indicated that there may or may not be changes required as a result of those discussions, but indicated at this time, there is no indication that the technical aspects of this report will change. Mr. Paglia noted that they have not heard back from MECP or Jacobs regarding those concerns, which will result in further discussion that may or may not change the items of construction in the report to ensure no adverse effects, but that the alignment and technical aspects may not change. Mr. Paglia explained that for today's purposes, the Board can carry forward provided no landowner presents any appeal on the technical aspects. Mr. Paglia also noted that at any time, and if circumstances change, Council can send the report back to the engineer before final adoption occurs.

Board Chair Anthony Campigotto asked if the landowner in the gallery that would like to speak.

The Board heard from:

- **Dan Huneault, on behalf of Jones Group (Terry Jones) /Amherstburg Yacht Club**

Mr. Huneault stated that the Amherstburg Yacht Club has hired Dragon Corporation to review the report and add comments. Mr. Huneault explained there have been emails with Mr. Warner regarding some concerns, and the main change is correcting the 450mm pipe existing on the ERCA lands, some fittings that need to be corrected, and slight changes to the rip rap.

Mr. Huneault mentioned there are concerns with the drainage plan and the existing drainage as it is right now, there is no supporting documents of the quality of the discharged water as part of the watershed is the former General Chemical lands. Mr. Huneault asked if there were any reports that refer to the cleanliness of the water. Mr. Huneault stated that people go in the water at the ramps in the marina and there are also ice fisherman in the winter, and AYC believes there could be some environmental concerns.

Mr. Huneault explained there is very little mixing of the river water within the marina to dilute or mitigate and hazardous concentrations of chemicals and as such, AYC would like to see some documentation that supports that the water quality is clean.

Mr. Huneault wondered if there were records of the current discharge rate after a storm event vs the discharge rate that can be expected with the additional development areas. The current report states parcels10-15 alone would not exceed 220 ltrs / second, but in addition to the existing flow and proposed areas of development for parcels 3 & 4, it is believed there would be increased flow. Mr. Huneault likened the flow to 220 ltrs being equivalent to a 55 gallon drum of water every second coming out of the pipe. Mr. Huneault indicated that even with controls in place, flows of that ratio could in fact move sediment, and the impact of the sediment accumulation in the future and who would be responsible for the costs associated with removing and disposing of it. The Drainage Act states that the drainage design change is to be acceptable to all parties and that no negative impact to any one of the property owners for the proposed change. The AYC feels that the change has the potential to have a negative impact on the operation of the yacht club and as such would like an alternate design of the drain potentially rerouting the drain around the AYC property. By doing so it would help mitigate the concerns of the contamination as the Detroit River would quickly dilute any contaminant. Mr. Huneault added the flow would not have any adverse effect on boat owners and there would be no concern of accumulated sediment within the marina.

Mr. Paglia thanked Mr. Huneault for his comments. Mr. Paglia noted that the Town and Mr. Warner have been corresponding with the Jones Group and Dragon Corporation, and one of the main messages that the Town and Engineer are trying to get across to the Jones Group is, if they feel that there is a problem with the current design, that an appeal is required. Alternatively, the Jones Group may request that the drain be moved around the marina property, but this request would likely be seen as a benefit to the marina and assessed accordingly. In either situation, it is imperative that the project continue to move forward. If the Jones Group does not like the design of the drain and wishes it go around their property, it is not up to the community of landowners in the watershed to do that, it is up to the landowner to pay for it through a special benefit. Mr. Paglia explained that through the correspondence, this is the message that has been indicated to the Jones Group. The Town or Engineer is not opposed to re-routing the drain, but that the engineer is obligated to act impartial and provide an economic solution to the drainage matter, and if the drain is moved, the cost associated with that move are fair relative to the reason for the move. Although a third party can look at the design, it is however the Drainage Act and Councils obligation that the appointed engineer working for everyone in the watershed complete the recommended works to re-route the

drain. The Town and Mr. Warner have tried to respond to the question of flow, but it is clear that the Jones Group and their consultants are somewhat still concerned on the matter. Mr. Paglia indicated that the question of quality is a good one, and that the Town and Mr. Warner also want to hear from the regulatory bodies (MECP) if anything is required to ensure the water quality will be met. The Town will obtain approvals and the engineer will have recommendations in the adopted report if the water quality concerns are real.

Mr. Paglia felt that the hydrology concerns have been addressed and asked Mr. Warner to confirm.

Mr. Warner explained that if the predeveloped state of all the lands in the watershed were compared to the proposed ultimate condition where multiple properties are being restricted to 2 year predeveloped release rates, the flow even with the addition of the additional properties is actually lower during the 1:100 yr storm event. The flows are estimated at 3.38 cubic metres per second and 3.164 metres per second. They are relatively close, but it is lower due to the restriction of all of the developing lots. The new pipe is handling a large portion of the water, right now with unrestricted flows, the water shows that it will overflow the rip rap channel in a large storm event, however it is expected that the addition of the new pipe that is to be installed will handle that water.

Mr. Huneault added that they understand the flow rate would be consistent to current rates, and the AYC's concern is the quality of water and that the project will provide a negative impact on the marina. Mr. Huneault stated they would still like to consider an alternate design of this project by either the water going another route to the river or having the drain run north on the east side of Sandwich St N and cross over and outlet to the Detroit River north of the marina property, therefore the company's intention would likely be to appeal the project.

Mr. Paglia asked of Mr. Huneault, that if or when he submits his appeal, that he specifies or clarifies that the appeal is on the current design of the drain because that could determine whether Tribunal or Referee may hear the appeal. If the appeal is to reroute the drain, it is not an appeal, as much as it is a request. Mr. Paglia added that it is also his job to help landowners file the appeal if needed. Mr. Paglia noted that there are certain things that can be appealed, and if AYC feels that the benefit is not derived from the current design that it is grounds for an appeal, and the regulatory board will decide if warranted, but it is a tough one to prove because the regulatory bodies such as ERCA and DFO have provided comments on the current design. The only agency that Engineer and Town are not 100% sure of yet is the MECP, and that is related to the portion of the drain that is on contaminated soil due to an order

being on those lands. Mr. Paglia stated they want to make sure the water flowing in the drain afterwards is not problematic.

Mr. Huneault asked why ERCA and DFO would approve the project if there are potential concerns for the contaminated soil and was it not considered as an environmental threat.

Mr. Paglia replied that the Drainage Act allows for both of those agencies to ask for an environmental assessment, and whichever agency requests the environmental study pays for it. Mr. Paglia indicated that the landowners do not pay for an environmental study, and explained also, that notification is given and that 30 days must pass before an engineer is appointed. Mr. Paglia indicated that no agency has requested an environmental study. Mr. Paglia believed that all correspondence with DFO would be on file and potentially included in the report and that ERCA must have had comments. Mr. Paglia invited Mr. Warner to speak on the issue.

Mr. Warner did not believe the comments from the agencies are in the actual drainage report, however permits will be obtained from ERCA, and correspondence from ERCA has approved the drainage and hydrology report that was prepared. Mr. Warner stated that in terms of the soil, it typically falls outside of DFO and ERCA, as DFO would deal with the fish at the outlet, and ERCA would deal with flooding and erosion, leaving the contamination and soil to the MECP.

Mr. Huneault asked for clarification on pre-development flow and now that there will be more area added to the watershed, how the flow rate is being reduced.

Mr. Warner advised the developed lots are being restricted not just parcels10-15, but parcels 3, 4, 5, and 7 overall, resulting in a reduction of flows in the 1:100 year storm event.

Mr. Huneault commented that these lots were not draining through the same drain and therefore did not make sense to him.

Mr. Warner, explained that all of the lots except parcels 10-15 were draining through the existing drain and all additional developed lots would be responsible for restricting their flows to the 1:2 year predeveloped release rate, therefore in a 1:100 year storm event the existing parcels are no longer releasing at as high of a rate, which results in an overall reduction to the watershed.

Mr. Huneault questioned how adding a parcel of land, natural flow of water from a smaller parcel and now adding significant acreage would result in a reduction.

Both Mr. Paglia and Mr. Warner urged that the hydrology shows as indicated, in that by restricting the flow of parcels 10-15 to smaller than the 2 year predevelopment flow rate, the watershed receives a net benefit in terms of the 1:100 year storm event compared to unrestricted flows

Mr. Huneault wanted to clarify if the additional lands was ever draining through the property.

Mr. Paglia stated the lands that were using the drain were using it with unrestricted flows, and now there are restrictions as a result of development - including some parcels within the existing drainage area, in the way of conveyance it is a better situation to have controlled water in a drain than free-flow as it is currently.

Mr. Paglia spoke about statute law and common law and indicated that the current drainage for the area is or falls under a common law situation. Mr. Paglia further stated that when there is an engineer appointed under the Drainage Act, and hydrology is performed on the watershed as is the case here due to proposed developments in the watershed, the regulatory bodies get involved in these cases, the Act and the Town can accommodate and the control the flows in the area to ensure that the water is safely conveyed to a sufficient outlet and not cause adverse effects to any of the affected landowners within the watershed. In this case, we are taking a drain that has no legal status and/or restricted flows, and giving it legal status by engineering it and allowing water to flow unobstructedly through Statute law to ensure no adverse effect, but with further restrictions of controlled and permitted flows.

Mr. Huneault asked if the plan was to wait to see what MECP responds with as to the contaminated project before adopting the report.

Mr. Paglia stated that at this point, they would not be waiting for MECP's response to move the project forward, but will be corresponding and obtaining approvals before anything is constructed, however if AYC wishes to appeal the project they could do so. They have 40 days from the date of the last mailing to submit the appeal on the project. Mr. Paglia noted that as far as the Drainage Board was concerned if an appeal is not received, there is no reason to not proceed as normal. Mr. Paglia explained there are appeal rights for those who submitted the initial request as well, just like landowners who do not wish to have it done, and so the project as a whole, must move forward to provide legal outlet. If landowners feel strong enough to appeal the project, then the appeal should be submitted. A landowner can by special request ask and pay for the drain to go around their land, but the appointed engineer must accommodate and assess the costs for doing so. Mr. Paglia indicated as far as the drainage

act procedures are concerned, this is a meeting to consider the technical aspects of the revised report.

Mr. Warner added that if the drainage report is passed and MECP has concerns, it will be recommended to Council to refer the report back for further considerations. Mr. Warner further added that currently he was not sure what (if any) those would be, but that the report would not be adopted until all approvals are obtained.

Mr. Paglia reiterated that if at any time the scope of work changes for this project that would require alterations to the final report, that Council has the ability to refer the report back to the engineer for further consideration. Until the report becomes finally adopted there is always a chance it can be revised.

Board Chair Anthony Campigotto asked if there was anyone else in the gallery that would like to speak.

- **Hal Kearsey – HRK Realty Services – representing Dan Castor of Castor Custom Homes for parcels 10-15.**

Mr. Kearsey indicated that planning approvals for their property are underway and does not want their timelines held up, as they are assembling their time schedule. Mr. Kearsey asked how long the process took if an appeal is received on the project.

Mr. Paglia stated a lot can happen so it is hard to predict a timeline, however when a report is passed and there are no appeals, it takes approximately 3-4 months to flow through the process of adoption. Then the project has to proceed through the process of procurement so that the tendering process can take place. Mr. Paglia stated that some appeals on projects are dismissed immediately, but there have been appeals that have taken months to get through for various reasons. Mr. Paglia provided a couple of examples, and indicated the Town and Mr. Warner would do their best to move forward, but must allow the procedures to take place.

Mr. Kearsey appreciated the answer provided and thanked Mr. Paglia.

Board Chair Anthony Campigotto asked if there was anyone else in the gallery that would like to speak.

There were none.

Board Chair Anthony Campigotto asked if there were any Board Members that would like to speak.

- **Board Member Brian Renaud**

Board Member Brian Renaud requested clarification from Mr. Paglia if the drain was rerouted around AYC if an appeal was required.

Mr. Paglia indicated Town is tasked with administering the act, and if the Board's decision was to send the report back to the engineer, it would be for further consideration, and not to direct the engineer in any way as it relates to the design. It is also possible that the Town could receive appeals by other landowners if it is perceived that the Town is holding up the process. The Town is no different from any other landowner in the Drainage Act, therefore the Board / Town cannot direct the engineer to design the drain a certain way. The Town can send the report back and look at options and meet with landowners etc, but cannot direct the engineer to complete a design a certain way. The engineer has to work without fear or favour to one particular landowner including the Town.

Mr. Renaud wanted clarification that if the Jones Group would like the drain to be rerouted to go to the north in order to avoid the marina, it would be their cost to bear.

Mr. Paglia confirmed that there is a report in front of them, which includes the engineers recommended design and the engineer and Town feel confident that the current design meets the requirement of the engineer and watershed. If there a landowner that wants the design altered around their property, the engineer has stated that not only would a request be required, also, that 100% of the costs associated with that request would likely be assessed to the requesting landowner as a special benefit. If an appeal is directly related to the current design, the appeal must be dealt with.

Mr. Paglia explained that the report could be sent back to the engineer to meet with the Jones Group and see what needs to be done, however Mr. Warner has already put a design in place and met part of his obligations in the Drainage Act, therefore any alteration at this point has a cost and would typically be borne by the requesting landowner. Mr. Paglia stated if Mr. Jones would like to submit a special request and ask the engineer to reroute the drain, it would be likely at their expense unless determined by an appeal body on the current project design. Mr. Paglia indicated that the report was already sent back for meetings with the Jones Group to be held, and this was communicated to them, but there has been no request or appeal filed by them at this point.

Mr. Renaud asked Mr. Huneault if the Jones Group would be willing to take on those extra costs.

Mr. Huneault indicated that he would have to go back to the office and meet with Mr. Jones to find out how he would like to proceed. Mr. Huneault stated that he understands where the cut-off point along the east side of Sandwich St N is at some point between the Rivers Edge building, and travels north before crossing the road or is there an option to look at the bottom of the existing chute on the west side of Sandwich St N and redirect outside of the ramp and marina area and into the river. Mr. Huneault stated there would be some land that needs to be open cut, but it is an option.

Mr. Warner stated in terms of rerouting the drain east of Front Rd N there would be significant increased costs due the addition of another crossing across Sandwich Street North. Mr. Warner explained he has looked briefly into the option of rerouting on the westerly side 150 meters to completely go around the marina, compared to the 17 meters currently through the marina. There is a severe drop off in the area, which would create a concern with the roadway and a geotechnical investigation would need to be completed. Mr. Warner noted that there is also a sanitary sewer in the right of way. Mr. Warner noted there would be a significant cost to this option potentially in the range of an estimated $100,000.

Mr. Huneault suggested an option at the bottom of the rock chute on the AYC / ERCA property on a northwest direction, from the bottom of the rock chute turning 45 degrees to the west through the rip rap along the river. This option is not necessarily all around AYC property, but away from the boat ramp.

Mr. Warner indicated that Mr. Huneault's suggestion is still utilizing the existing infrastructure in addition to another pipe, therefore he is not seeing the benefit of it, however it is up to Mr. Huneault's and Mr. Jones' discretion. Mr. Warner added with Mr. Huneault's option there is not a lot of grade in order to get above the water level, so hydraulically it may not function as well by going further and getting deeper into the water levels of the Detroit River.

Board Chair Anthony Campigotto asked if there were any further questions from the Board members.

Mr. Renaud asked for clarification on how to proceed as there are still some issues to work out for Jones Group.

Mr. Paglia stated that Mr. Warner has provided the Board with a design and the Board can choose to provisionally adopt the report if there are no appeals on the technical merit. The meeting to consider is to hear matters on the technical aspects of the report and questions or concerns from landowners on the report's technical nature (such as why was something done this way or that way

etc). The Jones Group has issues with the design and feels it is inadequate, which is a valid appeal, but this appeal would have to be heard. Mr. Paglia indicated that sending the report back to the engineer to alter a design or to relocate the drain off of someone's land may be over stepping boundaries. Mr. Paglia explained if the Board felt there is a technical aspect to be challenged, then the Board's has the right to send the report back to the engineer.

Mr. Warner added that this meeting was very similar to the last meeting that was held. Mr. Warner further added that there was potentially a request coming to reroute the drain, and the landowner was told on multiple occasions that if they wanted Mr. Warner to look into rerouting the drain around their property, they would have to submit a special request to do so. Mr. Warner did not receive this request.

Mr. Paglia indicated that the Town runs the risk of appeal by other landowners if the project does not move forward, and a reasonable amount of discussion and time has been provided to the Jones Group to make a request to reroute the drain has not been made at this time, nor has an appeal been submitted by the Jones Group if they wish to have the design altered at this point. Mr. Paglia added that the report is only one part of the entire project, but the project has other parts. If the report is provisionally adopted and not appealed, the design moves forward. If there are changes by other agencies or appeal bodies, or a request to alter the report is received, it can be referred by Council back to the engineer. Mr. Paglia stated one way or another the project has to keep moving.

Mr. Huneault noted the report did not address the impact to the marina, and the potential contamination therefore design options need to be looked at to negate the impact of the water to the marina. Mr. Huneault reiterated his options that he spoke about earlier, and mentioned Mr. Warner advised that the slope may not be adequate, however Mr. Huneault felt the option should still be looked into before any decisions are made.

Board Vice-Chair Allan Major asked if a report from MECP should be received before the Board continues with the process.

Mr. Paglia indicated construction on the drain cannot start until the answers from MECP are received, and any alterations to the design are warranted and completed through the Drainage Act procedures.

Mr. Campigotto asked Mr. Paglia for clarification of the two options before the Board, which are to adopt the report as is and the landowner can appeal if they disagree, or the landowner could submit a request for the drain to be rerouted.

Mr. Paglia confirmed that there are two alternatives to those options - the appeal on technical merit from the landowner before provisional adoption of the report can be submitted 40 days after the date of the last notice. Mr. Paglia also explained the appeal from the Court of Revision process. Mr. Paglia simplified things by stating that if there were no appeals received, that the Board could provisionally adopt the report if warranted. If there is an appeal filed, then the appeal must be heard and addressed before the report can be fully adopted. In either case, there are many opportunities for appeal, and for landowners, but the project must move forward to allow those opportunities to take place.

Board Member Murray Sellars asked if the Board could move forward on the appeal.

Mr. Paglia noted that he believed the Board would have to hear the appeal, but does not have the right to vote on the appeal. Appeals on technical merit are heard by the Tribunal. At this point, Mr. Paglia believed it would be a motion to accept the verbal appeal from the gallery and then work with the landowner on submitting the paperwork for the appeal after the fact, and within the regulated timelines, however Mr. Paglia believed that the Board would have to make a motion to first hear/accept the verbal appeal and/or send the report back to the engineer.

Mr. Huneault asked for clarification on the type of appeal in order to appeal the existing design.

Mr. Paglia reiterated that it would be an appeal on technical merit of the engineer's report.

Mr. Huneault believed that would be the intention of the Jones Group to move ahead with the appeal.

Mr. Paglia stated that "believe" is not enough, it has to be a definite statement on behalf of the owner of land.

Mr. Huneault, stated that he was not in a position to speak on the company's behalf as he is not entitled to do so.

Mr. Paglia indicated that Mr. Jones is not in the gallery and he is the one who has to submit the appeal as he is the landowner.

Mr. Huneault asked if he could request a recess so that he could make a phone call to Mr. Jones.

Mr. Paglia stated that it was not up to him to make that decision.

Kevin Fox, Municipal Clerk explained that the Board could certainly grant a recess however it was his understanding that an appeal could also be submitted after the adoption of the report.

Mr. Paglia confirmed Mr. Fox's comments were correct as long as the appeal was received within the 40 days of the last notice.

There was discussion about the ability for the Jones Group to appeal, and reiterated to options before the Board.

Brian Renaud moved, Allan Major seconded;

THAT:

1. **The reconsidered engineer's report, prepared by R. Dobbin Engineering Inc. dated August 14, 2024 for the construction of the General Drain (2024) BE RECEIVED;**

2. **The reconsidered engineer's report for the construction of the General Drain (2024) BE CONSIDERED;**

3. **The PROVISIONAL ADOPTION of By-law 2024-047 which appends the reconsidered engineer's report for the construction of the General Drain (2024) BE BROUGHT to the next Regular Council meeting for Council's consideration; and,**

4. **Administration BE DIRECTED to proceed with the scheduling of the Public Meeting of the Court of Revision for the construction of the General Drain (2024).**

Motion Carried

8.0 NEW BUSINESS

8.1 Engineering Appointment – Albert McGee Drain Upper

Mr. Paglia explained that the premise of this Section 78 request by the landowner was due to the landowner donating a portion of their land to the planting of trees by ERCA and by doing so, they no longer have an access to

their remaining farm lands. Mr. Paglia advised that Dillon Consulting Ltd is already in the area of the lands working on the St Theresa Subdivision, and he recommended appointing Oliver Moir, P.Eng from Dillon Consulting Ltd. to complete the S. 78 report.

Allan Major moved, Murray Sellars seconded;

THAT:

1. **The report from the Drainage Superintendent and Engineering Coordinator dated August 14, 2024 regarding the Albert McGee Drain (Upper) – Engineering Appointment BE RECEIVED;**

2. **The Drainage Board recommend that Council ACCEPT the request from the landowner(s) for improvements to the Albert McGee Upper Drain drainage system as per Section 78 of the Drainage Act; and,**

3. **The Drainage Board recommend the appointment of Oliver Moir, P.Eng., of Dillon Consulting Limited to examine and report on the repair and improvement to the Albert McGee Drain (Upper) drainage system BE APPROVED by Council.**

Motion Carried

8.2 Engineering Appointment – Section 4 Petition Drain

Mr. Paglia advised the Board Members that the Petition 4 report before them are landowners petitioning for a new Municipal Drain. Mr. Paglia explained this particular case was a good one for the members to review as it is an example of statute law vs common law in this situation, where water was doing harm so a landowner blocked it on his property. Now that the water is blocked, it left a farm without an outlet therefore a new petition drain has been submitted by the landowner and the Road Authority.

Brian Renaud moved, Allan Major seconded;

THAT:

1. **The report from the Drainage Superintendent and Engineering Coordinator dated July 15, 2024 regarding the Section 4 Petition Drain – Engineering Appointment BE RECEIVED;**

2. **The Drainage Board recommend that Council ACCEPT the request from the landowner(s) for a Petition Drain under Section 4 of the Drainage Act; and,**

3. **The Drainage Board recommend the appointment of Josh Warner, P.Eng., of R. Dobbin Engineering Inc., under Section 4 of the Drainage Act for the validation, examination and report on the petition for a new Municipal Drain BE APPROVED by Council.**

Motion Carried

8.3 Drainage Apportionment

Mr. Paglia stated that this apportionment is due to a land severance. Mr. Renaud is a landowner on the Deslippe Drain and therefore will not be participating in this item.

Allan Major moved, Murray Sellars seconded;

THAT:

1. **The report from the Drainage Superintendent and Engineering Coordinator dated August 26, 2024, regarding Drainage Apportionment(s) BE RECEIVED;**

2. **The drainage apportionment(s) BE APPROVED as listed:**

    - **Consent B/13/24 - Drainage Apportionment for the Deslippe Drain & Long Marsh Drain– 6081 County Rd. 18**

3. **Administration BRING FORWARD the Drainage Board's recommendation to approve by resolution, the drainage apportionment at a future Regular Council Meeting.**

Motion Carried

9. NEXT MEETING DATE

October 1, 2024 at 6:00 p.m.

10. ADJOURNMENT

Allan Major moved, Brian Renaud seconded;

THAT:

The Board rise and adjourn at 8:03 p.m.

Motion Carried

_____
Chair – Anthony Campigotto

_____
Staff Liaison – Sam Paglia

R. Dobbin Engineering Inc.
4218 Oil Heritage Road
Petrolia, Ontario, N0N 1R0
Phone: (519) 882-0032 Fax: (519) 882-2233
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July 17, 2024

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

Gentlemen and Mesdames:

Re: Shipman Drain Preliminary Report (2024)

In accordance with your instructions, R. Dobbin Engineering has undertaken an examination with regards to improving the Shipman Drain in the Town of Amherstburg.

Authorization under the Drainage Act

This is an Engineer's Report that has been prepared under Section 78 of the Drainage Act. R. Dobbin Engineering was appointed on July 18, 2023.

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 Shipman Drain was constructed under an Engineer's Report dated August 24, 1962 on the east side of Concession Road 2. The drain consisted of 900 feet (274m) of drain going north to the River Canard and 900 feet (274m) of drain heading south to the Long Marsh Drain. The drain consists of 10" (250mm) diameter tile at the top end of both

drains and has a 16” (400mm) diameter drain outletting into the River Canard and a 12” (300mm) diameter drain outletting into the Long Marsh Drain.

The drain was then improved under an Engineer’s Report dated November 21, 1969. The drain improvements commenced on the south side of South River View. The drain was twinned with the same size tile and same lengths as under the 1962 report and was to be known as the Shipman Drain No. 2. The drain was to run west of the present drain and approximately 6 feet east of the line of hydro poles on the east side of Concession Road 2.

Drain Classification

The Shipman Drain is currently classified as a class “F” drain according to the Department of Fisheries and Oceans (DFO) classification as presented by the Ontario Ministry of Agriculture, Food and Rural Affair’s Agricultural Information Atlas.

Class “F” drains are intermittent or ephemeral (dry for more than two consecutive months).

Approvals

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

Site Meeting

A site meeting for this drain was held on June 14, 2023. The following were present:

- Josh Warner (R. Dobbin Engineering)
- Sam Paglia (Drainage Superintendent, Town of Amherstburg)
- Pat Iacobelli (Supervisor of Roads and Fleet, Town of Amherstburg)
- Ed Monforton (Landowner)
- Stanley Wieclaw (Landowner)
- Mike Meloche (Landowner)
- Tim Coughlin (Landowner)
- Francis Beneteau (Landowner)
- Sarah Beneteau (Landowner)

The following is a brief summary of the meeting:

- General discussion of the Drainage Act and Landowners rights under the Drainage Act.
- There had been multiple repairs completed recently on the drain and the drain continues to deteriorate. The drains grade line is up and down and does not service the area to the extent it was designed to.
- The property with Landowner Identification Number (LIN) 13 has replaced his section of drain recently with an 18" (450mm) diameter HDPE tile.
- Catch basins and pipe are generally full of water due to water levels.
- It was generally agreed that the drain should be replaced with one drain.
- R. Dobbin Engineering to investigate options for the drain:
    - Split the drains as it is now, with half going south and half going north
    - Have the drain go one direction
    - Potentially a pump station
- R. Dobbin Engineering to investigate the drainage area as there have recently been reports and it appears that some water from west of Concession Road 2 has been added to the watershed.

Design

The proposed drainage works shall be designed to handle 38mm/24 hours for agricultural lands and the 2-year storm event for residential properties.

Discussion

Three options were evaluated for the proposed improvements. Each option was evaluated at a high level with an Estimate of Cost, Schedule of Assessment and Drawings. The options are outlined below:

Option 1

Option 1 is a storm system all draining south to the Long Marsh Drain complete with a pump station. Draining all lands north to River Canard was reviewed but it was determined that the south option had fewer utility conflicts, would result in a better location for a pump station and lower costs for the watershed. This option removes the systems reliability on the elevations of larger bodies of water and will remove the stagnant water from the basins and surrounding area. This option represents the highest costing option. The watershed would also be responsible for yearly hydro costs to run the pump station. The estimated pump station cost will go up or down depending on the

features that are included as part of the system, such as a generator, notification systems, etc.

The estimated cost for Option 1 is $613,985.00.

Option 2

Option 2 is a storm system all draining south to the Long Marsh Drain without a pump station. This option provides improved drainage for the area, but will still be impeded by the water levels in the adjacent bodies of water. This option does allow for the potential of a pump station in one location in the future.

The estimated cost for Option 2 is $477,815.00.

Option 3

Option 3 is a split storm system with some of the water draining north and some of the water draining south. This option has a privately replaced portion of the system remaining, contingent on a video inspection. This option represents the lowest price option but does not solve the systems reliance on the local water levels and would likely require two pump stations should they be investigated in the future.

The estimated cost for Option 3 is $433,289.00.

Assessments

The three options were assessed in the following manner:

1. In Accordance with Section 26 of the Drainage Act the increased cost of the drainage works caused by the existence of the public utility or road authority has been assessed to the public utility or road authority. This includes costs for engineering of future replacements, increases in construction cost as a result of the public utility or road authority, incorporation of the existing infrastructure and the costs to locate and survey the public utilities.

2. The cost of asphalt and concrete driveways has been assessed to the benefitting property as a special benefit assessment.

3. The pump station for Option No. 1 has been assessed with approx. 50% of the estimated cost applied as a benefit assessment to the road authority and the remainder

assessed as outlet assessment to the upstream lands and roads based on equivalent hectares.

4. The remaining cost has generally been assessed with approx. 67% of the estimated cost applied as a benefit assessment to the road authority, 11% of the estimated cost applied as a benefit assessment to the abutting residential/farm property and the remainder assessed as outlet assessment to the upstream lands and roads based on equivalent hectares.

Conclusion

With the 3 options presented, it is R. Dobbin Engineering's opinion that Option 1 represents the best solution for the area. Option 1 will result in the most upfront cost but will eliminate the reliance of the drainage system on the water levels of the surrounding bodies of water.

Yours truly,

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

Estimate of Cost (Option #1)

Single Drain to South Complete with Pump Station

Item Description (Supply and Install New)	Quantity	Unit	Unit Cost ($)	Total ($)
Pre-Construction Meeting	1	LS	200	200
De-Watering	1	LS	15,000	15,000
Brushing and Tree Removal	1	LS	5,000	5,000
Traffic Control	1	LS	5,000	5,000
Locate and Work Around Main Line Telecom	1	LS	1,500	1,500
Locate and Work Around Overhead Hydro	1	LS	1,500	1,500
Co-Ordinate Pole Holds with Hydro One as Required	1	LS	2,000	2,000
Locate and Work Around Gas Services (LIN 8, 9, 11, 12 & 14)	5	each	400	2,000
Locate and Work Around Water Services (LIN 8, 9, 11, 12 & 14)	5	each	400	2,000
Water Service Replacement at LIN 8 & 9	2	each	2,500	5,000
Locate and Work Around Telecom Services (LIN 9, 11 & 14)	3	each	400	1,200
Locate and Work Around Hydro Service to LIN 8 & 9	2	each	400	800
Locate and Work Around Fiber Service to LIN 14	1	LS	400	400
Remove and Reinstall Signs	1	LS	500	500
Remove and Dispose of Existing Catch Basins	7	each	500	3,500
Sawcut and Remove Concrete Driveway at LIN 11	1	LS	500	500
Sawcut and Remove Asphalt Driveway at LIN 12	1	LS	500	500

Item Description (Supply and Install New)	Quantity	Unit	Unit Cost ($)	Total ($)
Strip Topsoil in Farms	310	m	10	3,100
Locate, Remove and Dispose of Existing Storm Drain	1100	m	20	22,000
Supply and install 600mmØ HDPE Pipe	207	m	400	82,800
Supply and install 525mmØ HDPE Pipe	115	m	375	43,125
Supply and install 450mmØ HDPE Pipe	144	m	350	50,400
Supply and install 375mmØ HDPE Pipe	16	m	300	4,800
Supply and install 250mmØ HDPE Pipe	29	m	250	7,250
Pump Outlet Pipe	24	m	400	9,600
Backflow Preventor	1	LS	10,000	10,000
Connect Existing Tiles	50	each	150	7,500
Connect Existing tile with Tee at Station 0+189	1	LS	400	400
100% Crushed Granular "A" for Driveways (LIN 8, 9 & 14)	100	tonne	40	4,000
Concrete Driveway at LIN 11	50	sq.m	80	4,000
HL4 for Asphalt Driveway at LIN 12	5	tonne	300	1,500
HL3 for Asphalt Driveway at LIN 12	5	tonne	300	1,500
900mm x 1200mm Catch Basins (CB #1, 2, 3, 5 & 6)	5	each	3,500	17,500
600mm x 600mm Catch Basins (CB #4, 7 & 8)	3	each	3,500	10,500
600mm x 600mm Ditch Inlet Catch Basin (CB #9)	1	each	2,500	2,500
Restoration and Seeding	1	each	15,000	15,000

Item Description (Supply and Install New)	Quantity	Unit	Unit Cost ($)	Total ($)
Pump Station complete with Electrical, Controls, Piping and Appurtenances	1	LS	100,000	100,000
Contingency				39,500

Sub Total	483,575
Allowances	2,600
Engineering	72,240
Daylighting and Sureying Utilities	15,000
Completing AODA Compliant Document	1,500
Estimate for Tendering, Inspection and Contract Administration	28,000
ERCA Fee	500
Total Estimate excluding HST	**603,415**
Non-Recoverable HST (1.76%)	10,570
Total Estimate	**$ 613,985**

SCHEDULE OF ASSESSMENT (OPTION NO. 1)

Drain to South complete with Pump Station

Conc.	Lot or Part	Hectares Owned	Affected Hecatares	Landowner Index Number	Owner	Special Benefit ($)	Benefit ($)	Outlet ($)	Total ($)
Utilities									
Gas Utility					Enbridge Gas	4,394	-	-	4,394
Hydro Utility					Hydro One	6,137	-	-	6,137
Water Utility					Town of Amherstburg	11,401	-	-	11,401
Telecom Utility					Bell Telecom	5,395	-	-	5,395
						27,327	-	-	27,327
Public Lands									
Concession 2 N			0.71		Town of Amherstburg	15,063	369,801	20,297	405,161
South Riverview			0.14		Town of Amherstburg	-	-	4,002	4,002
						15,063	369,801	24,299	409,163
Agricultural Lands									
2	Pt. Lot 12 and 13	55.38	9.49	10	A. & Y. Simon	-	13,842	60,287	74,129
	Pt. Lot 13	11.93	4.04	13	E. & M. Monforton	-	6,479	25,665	32,144
						-	20,321	85,952	106,273

Conc.	Lot or Part	Hectares Owned	Affected Hecatares	Landowner Index Number	Owner	Special Benefit ($)	Benefit ($)	Outlet ($)	Total ($)
Non Agricultural Lands									
1	Pt. Lot 37	1.27	0.06	1	M. Coughlin	-	-	762	762
	Pt. Lot 37	0.42	0.11	2	K. & K. Kwiatkowski	-	-	1,398	1,398
	Pt. Lot 37	0.63	0.15	3	R. Cote	-	-	1,906	1,906
	Pt. Lot 37 & 38	0.63	0.15	4	J. & M. Purdie	-	-	1,906	1,906
	Pt. Lot 38	0.51	0.10	5	M. & S. Meloche	-	-	1,271	1,271
	Pt. Lot 38	0.93	0.00	6	M. Seguin	-	-	-	-
	Pt. Lot 38	0.48	0.00	7	F. Tessier	-	-	-	-
2	Pt. Lot 12	0.15	0.15	8	R. Orum	-	4,123	1,906	6,029
	Pt. Lot 12	1.97	0.81	9	M. & M. Dube	-	3,534	7,719	11,253
	Pt. Lot 12	0.41	0.42	11	M. Adamo & L. Pizzuti	5,440	4,712	4,669	14,821
	Pt. Lot 13	0.21	0.21	12	S. & A. Wieclaw	4,440	3,534	2,668	10,642
	Pt. Lot 13	0.81	0.81	14	M. Beneteau	-	5,890	9,005	14,895
	Pt. Lot 13	0.33	0.33	15	J. & S. Mongeau	-	2,356	3,983	6,339
		Total Area	17.68			9,880	24,149	37,193	71,222

Total Non Agricultural Lands	71,222
Total Agricultural Lands	106,273
Total Public Lands	409,163
Total Utilities	27,327
Total Assessment	$613,985

Estimate of Cost (Option #2)

Single Drain Without Pump Station

Item Description (Supply and Install New)	Quantity	Unit	Unit Cost ($)	Total ($)
Pre-Construction Meeting	1	LS	200	200
De-Watering	1	LS	15,000	15,000
Brushing and Tree Removal	1	LS	5,000	5,000
Traffic Control	1	LS	5,000	5,000
Locate and Work Around Main Line Telecom	1	LS	1,500	1,500
Locate and Work Around Overhead Hydro	1	LS	1,500	1,500
Co-Ordinate Pole Holds with Hydro One as Required	1	LS	2,000	2,000
Locate and Work Around Gas Services (LIN 8, 9, 11, 12 & 14)	5	each	400	2,000
Locate and Work Around Water Services (LIN 8, 9, 11, 12 & 14)	5	each	400	2,000
Water Service Replacement at LIN 8 & 9	2	each	2,500	5,000
Locate and Work Around Telecom Services (LIN 9, 11 & 14)	3	each	400	1,200
Locate and Work Around Hydro Service to LIN 8 & 9	2	each	400	800
Locate and Work Around Fiber Service to LIN 14	1	LS	400	400
Remove and Reinstall Signs	1	LS	500	500
Remove and Dispose of Existing Catch Basins	7	each	500	3,500
Sawcut and Remove Concrete Driveway at LIN 11	1	LS	500	500
Sawcut and Remove Asphalt Driveway at LIN 12	1	LS	500	500

Item Description (Supply and Install New)	Quantity	Unit	Unit Cost ($)	Total ($)
Strip Topsoil in Farms	310	m	10	3,100
Locate, Remove and Dispose of Existing Storm Drain	1100	m	20	22,000
Supply and install 600mmØ HDPE Pipe	231	m	400	92,400
Supply and install 525mmØ HDPE Pipe	115	m	375	43,125
Supply and install 450mmØ HDPE Pipe	144	m	350	50,400
Supply and install 375mmØ HDPE Pipe	16	m	300	4,800
Supply and install 250mmØ HDPE Pipe	29	m	250	7,250
Connect Existing Tiles	50	each	150	7,500
Connect Existing tile with Tee at Station 0+189	1	LS	400	400
100% Crushed Granular "A" for Driveways (LIN 8, 9 & 14)	100	tonne	40	4,000
Concrete Driveway at LIN 11	50	sq.m	80	4,000
HL4 for Asphalt Driveway at LIN 12	5	tonne	300	1,500
HL3 for Asphalt Driveway at LIN 12	5	tonne	300	1,500
900mm x 1200mm Catch Basins (CB #1, 2, 3, 5 & 6)	5	each	3,500	17,500
600mm x 600mm Catch Basins (CB #4, 7 & 8)	3	each	3,500	10,500
600mm x 600mm Ditch Inlet Catch Basin (CB #9)	1	each	2,500	2,500
Restoration and Seeding	1	each	15,000	15,000

Item Description (Supply and Install New)	Quantity	Unit	Unit Cost ($)	Total ($)
Contingency				28,500
			Sub Total	362,575
			Allowances	2,600
			Engineering	63,430
			Daylighting and Sureying Utilities	15,000
			Completing AODA Compliant Document	1,500
			Estimate for Tendering, Inspection and Contract Administration	24,000
			ERCA Fee	500
			Total Estimate excluding HST	**469,605**
			Non-Recoverable HST (1.76%)	8,210
			Total Estimate	**$ 477,815**

SCHEDULE OF ASSESSMENT (OPTION NO. 2)

Drain to South Without Pump Station

Conc.	Lot or Part	Hectares Owned	Affected Hecatares	Landowner Index Number	Owner	Special Benefit ($)	Benefit ($)	Outlet ($)	Total ($)
Utilities									
Gas Utility					Enbridge Gas	4,394	-	-	4,394
Hydro Utility					Hydro One	6,137	-	-	6,137
Water Utility					Town of Amherstburg	11,401	-	-	11,401
Telecom Utility					Bell Telecom	5,395	-	-	5,395
						27,327	-	-	27,327
Public Lands									
Concession 2 N			0.71		Town of Amherstburg	15,063	297,883	11,716	324,662
South Riverview			0.14		Town of Amherstburg	-	-	2,310	2,310
						15,063	297,883	14,026	326,972
Agricultural Lands									
2	Pt. Lot 12 and 13	55.38	9.49	10	A. & Y. Simon	-	13,245	34,800	48,045
	Pt. Lot 13	11.93	4.04	13	E. & M. Monforton	-	6,200	14,815	21,015
						-	19,445	49,615	69,060

Conc.	Lot or Part	Hectares Owned	Affected Hecatares	Landowner Index Number	Owner	Special Benefit ($)	Benefit ($)	Outlet ($)	Total ($)
Non Agricultural Lands									
1	Pt. Lot 37	1.27	0.06	1	M. Coughlin	-	-	440	440
	Pt. Lot 37	0.42	0.11	2	K. & K. Kwiatkowski	-	-	807	807
	Pt. Lot 37	0.63	0.15	3	R. Cote	-	-	1,100	1,100
	Pt. Lot 37 & 38	0.63	0.15	4	J. & M. Purdy	-	-	1,100	1,100
	Pt. Lot 38	0.51	0.10	5	S. & S. Meloche	-	-	733	733
	Pt. Lot 38	0.93	0.00	6	M. Seguin	-	-	-	-
	Pt. Lot 38	0.48	0.00	7	F. Tessier	-	-	-	-
2	Pt. Lot 12	0.15	0.15	8	R. Orum	-	3,945	1,100	5,045
	Pt. Lot 12	1.97	0.81	9	M. & M. Dube	-	3,382	4,455	7,837
	Pt. Lot 12	0.41	0.42	11	M. Adamo & L. Pizzuti	5,440	4,509	2,695	12,644
	Pt. Lot 13	0.21	0.21	12	S. & A. Wieclaw	4,440	3,382	1,540	9,362
	Pt. Lot 13	0.81	0.81	14	M. Beneteau	-	5,636	5,198	10,834
	Pt. Lot 13	0.33	0.33	15	J. & S. Mongeau	-	2,255	2,299	4,554
		Total Area	17.68			9,880	23,109	21,467	54,456

Total Non Agricultural Lands	54,456
Total Agricultural Lands	69,060
Total Public Lands	326,972
Total Utilities	27,327
Total Assessment	$477,815

Town of Amherstburg
July 17, 2024

Estimate of Cost (Option #3)

Split Drain (0+000 to 0+176 to North and 0+188 to 0+560 to South)

Item Description (Supply and Install New)	Quantity	Unit	Unit Cost ($)	Total ($)
Pre-Construction Meeting	1	LS	200	200
De-Watering	1	LS	25,000	25,000
Brushing and Tree Removal	1	LS	5,000	5,000
Traffic Control	1	LS	5,000	5,000
Locate and Work Around Main Line Telecom	1	LS	1,500	1,500
Locate and Work Around Overhead Hydro	1	LS	1,500	1,500
Co-ordination for Fiber Service Relocation at LIN 14	1	LS	800	800
Co-ordination for Gas Service Relocation at LIN 14	1	LS	800	800
Co-Ordinate Pole Holds with Hydro One as Required	1	LS	2,000	2,000
Locate and Work Around Gas Services (LIN 8, 9, 11, 12 & 14)	5	each	400	2,000
Locate and Work Around Water Services (LIN 8, 9, 11, 12 & 14)	5	each	400	2,000
Water Service Replacement at LIN 8 & 9	2	each	2,500	5,000
Locate and Work Around Telecom Services (LIN 9, 11 & 14)	3	each	400	1,200
Locate and Work Around Hydro Service to LIN 8 & 9	2	each	400	800
Locate and Work Around Fiber Service to LIN 14	1	LS	400	400
Remove and Reinstall Signs	1	LS	500	500
Remove and Dispose of Existing Catch Basins	7	each	500	3,500
Sawcut and Remove Concrete Driveway at LIN 11	1	LS	500	500
Sawcut and Remove Asphalt Driveway at LIN 12	1	LS	500	500

Item Description (Supply and Install New)	Quantity	Unit	Unit Cost ($)	Total ($)
Strip Topsoil in Farms	310	m	10	3,100
Locate, Remove and Dispose of Existing Storm Drain	990	m	20	19,800
Supply and install 450mmØ HDPE Pipe (Station 0+026 to 0+066)	40	m	350	14,000
Supply and install 525mmØ HDPE Pipe (Station 0+560 to 0+354)	206	m	375	77,250
Supply and install 450mmØ HDPE Pipe (Station 0+354 to 0+264)	90	m	350	31,500
Supply and install 375mmØ HDPE Pipe (Station 0+264 to 0+188)	76	m	230	17,480
Connect Existing Tiles	45	each	150	6,750
Connect Existing tile with Tee at Station 0+189	1	LS	400	400
100% Crushed Granular "A" for Driveways (LIN 8, 9 & 14)	100	tonne	40	4,000
Concrete Driveway at LIN 11	50	sq.m	80	4,000
HL4 for Asphalt Driveway at LIN 12	5	tonne	300	1,500
HL3 for Asphalt Driveway at LIN 12	5	tonne	300	1,500
900mm x 1200mm Catch Basins (CB #1, 2 & 3)	3	each	3,500	10,500
600mm x 600mm Catch Basins (CB #4, 5, 6, 7 & 8)	5	each	3,500	17,500
Restoration and Seeding	1	each	15,000	15,000
Contingency				32,130

Sub Total	314,610
Allowances	2,600
Engineering	62,640
Daylighting and Sureying Utilities	15,000
Video Drain Between Station 0+176 and 0+066	5,000
Completing AODA Compliant Document	1,500
Estimate for Tendering, Inspection and Contract Administration	24,000
ERCA Fee	500
Total Estimate excluding HST	**425,850**
Non-Recoverable HST (1.76%)	7,440
Total Estimate	**$ 433,290**

SCHEDULE OF ASSESSMENT (OPTION NO. 3)

Split Drain

Conc.	Lot or Part	Hectares Owned	Affected Hecatares	Landowner Index Number	Owner	Special Benefit ($)	Benefit ($)	Outlet ($)	Total ($)
Utilities									
Gas Utility					Enbridge Gas	5,574	-	-	5,574
Hydro Utility					Hydro One	6,137	-	-	6,137
Water Utility					Town of Amherstburg	11,401	-	-	11,401
Telecom Utility					Bell Telecom	6,575	-	-	6,575
						29,687	-	-	29,687
Public Lands									
Concession 2 N			0.71		Town of Amherstburg	15,063	256,735	11,468	283,266
South Riverview			0.14		Town of Amherstburg	-	-	2,261	2,261
						15,063	256,735	13,729	285,527
Agricultural Lands									
2	Pt. Lot 12 and 13	55.38	9.49	10	A. & Y. Simon	-	12,965	34,062	47,027
	Pt. Lot 13	11.93	4.04	13	E. & M. Monforton	-	3,034	14,501	17,535
						-	15,999	48,563	64,562

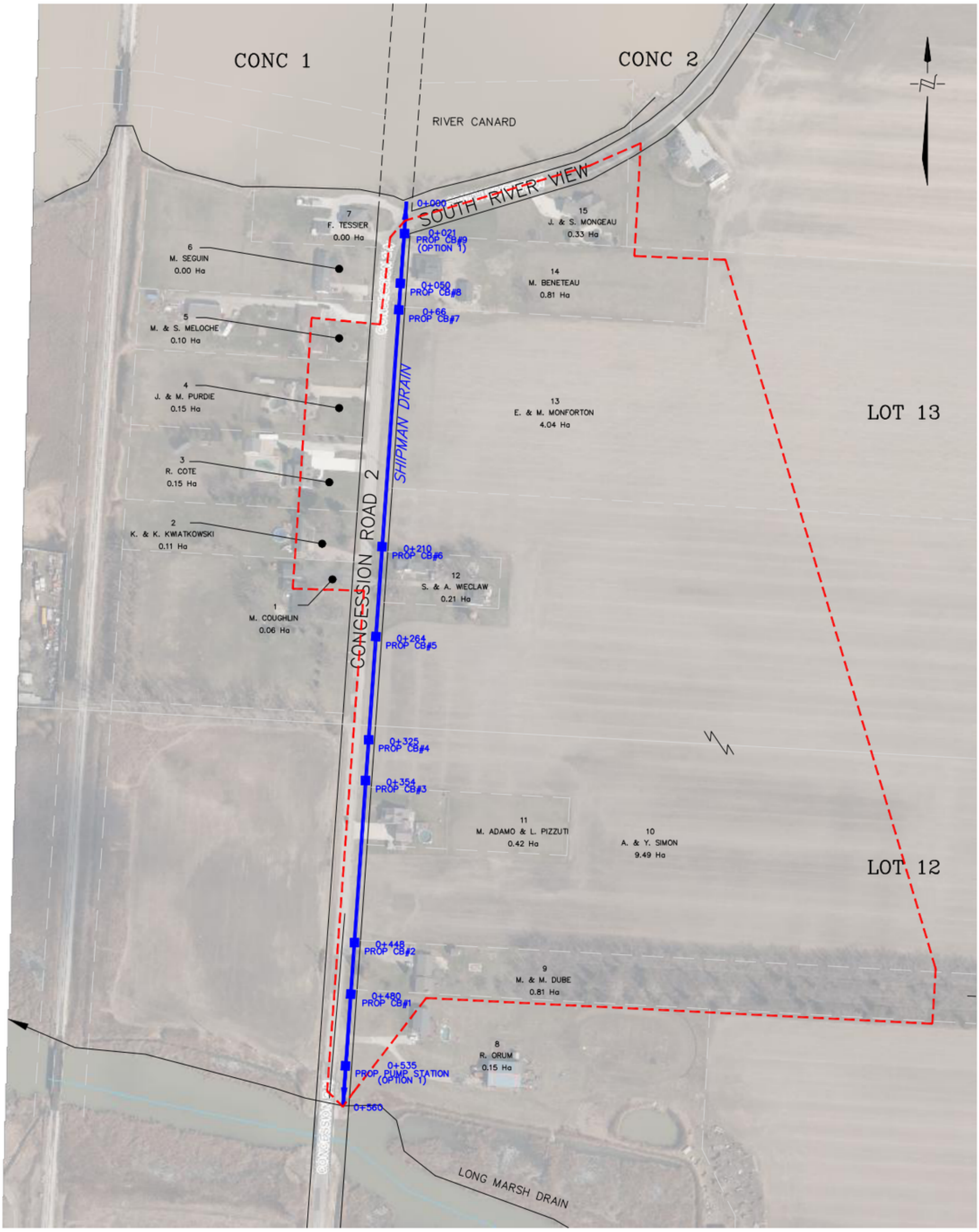
Conc.	Lot or Part	Hectares Owned	Affected Hecatares	Landowner Index Number	Owner	Special Benefit ($)	Benefit ($)	Outlet ($)	Total ($)
Non Agricultural Lands									
1	Pt. Lot 37	1.27	0.06	1	M. Coughlin	-	-	431	431
	Pt. Lot 37	0.42	0.11	2	K. & K. Kwiatkowski	-	-	790	790
	Pt. Lot 37	0.63	0.15	3	R. Cote	-	-	1,077	1,077
	Pt. Lot 37 & 38	0.63	0.15	4	J. & M. Purdie	-	-	1,077	1,077
	Pt. Lot 38	0.51	0.10	5	M. & S. Meloche	-	-	718	718
	Pt. Lot 38	0.93	0.00	6	M. Seguin	-	-	-	-
	Pt. Lot 38	0.48	0.00	7	F. Tessier	-	-	-	-
2	Pt. Lot 12	0.15	0.15	8	R. Orum	-	3,862	1,077	4,939
	Pt. Lot 12	1.97	0.81	9	M. & M. Dube	-	3,310	4,361	7,671
	Pt. Lot 12	0.41	0.42	11	M. Adamo & L. Pizzuti	5,440	4,414	2,638	12,492
	Pt. Lot 13	0.21	0.21	12	S. & A. Wieclaw	4,440	3,310	1,507	9,257
	Pt. Lot 13	0.81	0.81	14	M. Beneteau	-	5,517	5,088	10,605
	Pt. Lot 13	0.33	0.33	15	J. & S. Mongeau	-	2,207	2,250	4,457
		Total Area	17.68			9,880	22,620	21,014	53,514

Total Non Agricultural Lands	53,514
Total Agricultural Lands	64,562
Total Public Lands	285,527
Total Utilities	29,687
Total Assessment	$433,290

ASSESSMENT COMPARISON

Conc.	Lot or Part	Hectares Owned	Affected Hecatares	Landowner Index Number	Owner	Option No. 1	Option No. 2	Option No. 3
Utilities								
Gas Utility					Enbridge Gas	4,394	4,394	5,574
Hydro Utility					Hydro One	6,137	6,137	6,137
Water Utility					Town of Amherstburg	11,401	11,401	11,401
Telecom Utility					Bell Telecom	5,395	5,395	6,575
						27,327	27,327	29,687
Public Lands								
Concession 2 N			0.71		Town of Amherstburg	405,161	324,662	283,266
South Riverview			0.14		Town of Amherstburg	4,002	2,310	2,261
						409,163	326,972	285,527
Agricultural Lands								
2	Pt. Lot 12 and 13	55.38	9.49	10	A. & Y. Simon	74,129	48,045	47,027
	Pt. Lot 13	11.93	4.04	13	E. & M. Monforton	32,144	21,015	17,535
						106,273	69,060	64,562

Conc.	Lot or Part	Hectares Owned	Affected Hecatares	Landowner Index Number	Owner	Option No. 1	Option No. 2	Option No. 3
Non Agricultural Lands								
1	Pt. Lot 37	1.27	0.06	1	M. Coughlin	762	440	431
	Pt. Lot 37	0.42	0.11	2	K. & K. Kwiatkowski	1,398	807	790
	Pt. Lot 37	0.63	0.15	3	R. Cote	1,906	1,100	1,077
	Pt. Lot 37 & 38	0.63	0.15	4	J. & M. Purdie	1,906	1,100	1,077
	Pt. Lot 38	0.51	0.10	5	M. & S. Meloche	1,271	733	718
	Pt. Lot 38	0.93	0.00	6	M. Seguin	-	-	-
	Pt. Lot 38	0.48	0.00	7	F. Tessier	-	-	-
2	Pt. Lot 12	0.15	0.15	8	R. Orum	6,029	5,045	4,939
	Pt. Lot 12	1.97	0.81	9	M. & M. Dube	11,253	7,837	7,671
	Pt. Lot 12	0.41	0.42	11	M. Adamo & L. Pizzuti	14,821	12,644	12,492
	Pt. Lot 13	0.21	0.21	12	S. & A. Wieclaw	10,642	9,362	9,257
	Pt. Lot 13	0.81	0.81	14	M. Beneteau	14,895	10,834	10,605
	Pt. Lot 13	0.33	0.33	15	J. & S. Mongeau	6,339	4,554	4,457
		Total Area	17.68			71,222	54,456	53,514
					Total	613,985	477,815	433,290



LEGEND

- SHIPMAN DRAIN
- MUNICIPAL DRAIN
- DRAINAGE AREA

Dobbin Engineering Inc.

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

DRAWING NAME:
Shipman Drain Plan

PROJECT No.
2023–1509

APPROVED	NO.	REVISIONS	DATE	BY
J. WARNER				
CHECKED	1	PRELIM. REPORT	JULY 17, 2024	CS
B. VAN RUITENBURG	SCALE 1:2500			
DRAWN	0 20 40 60			
C. SAUNDERS				

TOWN of AMHERSTBURG

SHIPMAN DRAIN

PLAN

1

OF 7

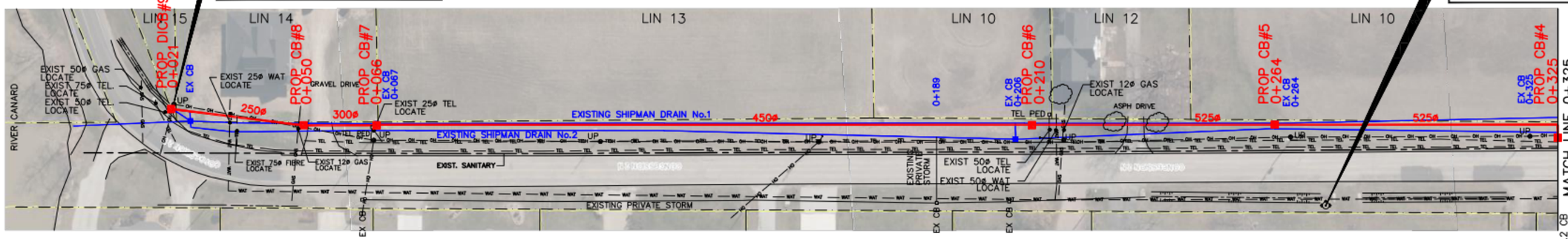
Last Updated: June 27, 2024

BM ELEV. 175.712
NAIL IN UTILITY POLE ON EAST SIDE OF CONCESSION ROAD #2 IN FRONT OF LIN 15

NOTE:
ALL EXISTING SHIPMAN DRAIN No.1 & SHIPMAN DRAIN No.2 INFRASTRUCTURE INCLUDING CATCH BASINS, EXCEPT FOR PRIVATE ROAD CROSSINGS TO BE REMOVED.

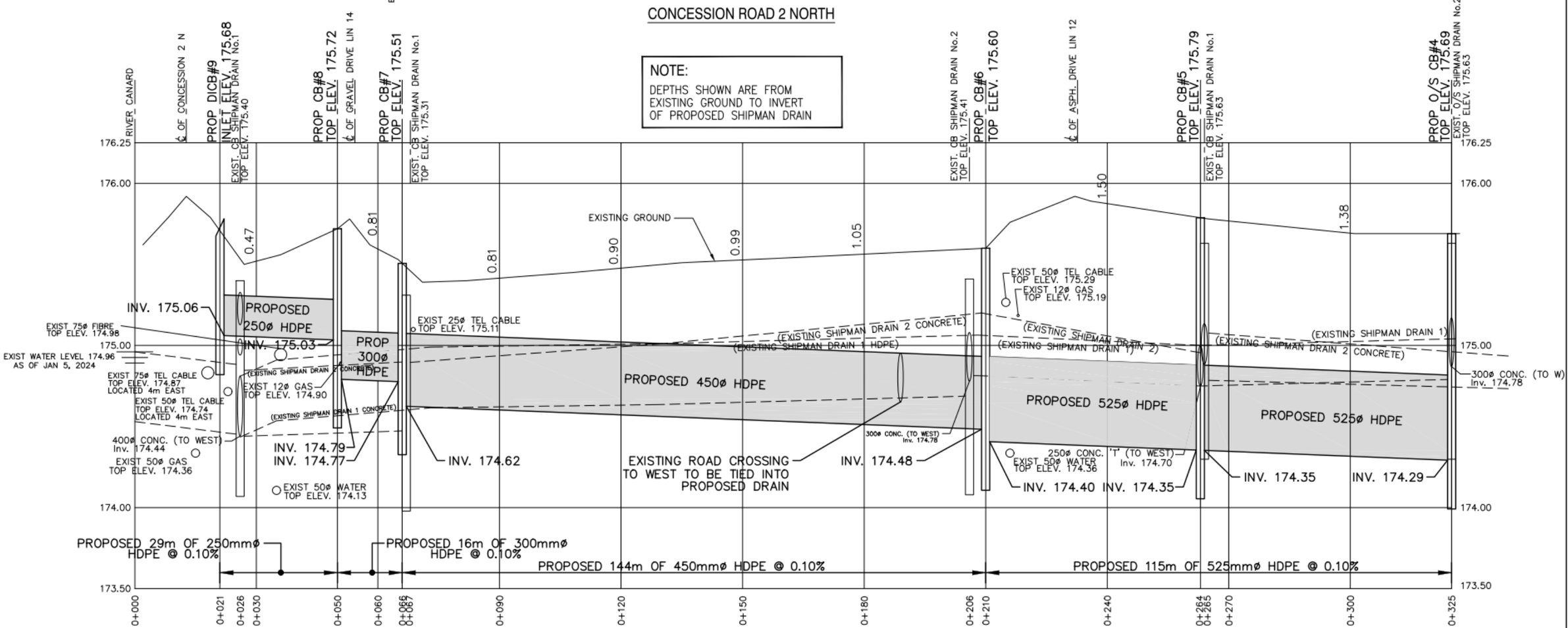
NOTE:
DURING INSTALLATION OF PROPOSED SHIPMAN DRAIN. CONTRACTOR TO ENSURE THAT EXISTING DRAIN REMAINS ACTIVE AS TO NOT CUT OFF EXISTING WATER FLOW

BM ELEV. 176.491
TOP SPINDLE OF FIRE HYDRANT LOCATED IN FRONT OF MN 2154



CONCESSION ROAD 2 NORTH

NOTE:
DEPTHS SHOWN ARE FROM EXISTING GROUND TO INVERT OF PROPOSED SHIPMAN DRAIN



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

DRAWING NAME: Shipman Drain Plan & Profile 1 Option 1

PROJECT No. 2023-1509

APPROVED	NO.	REVISIONS	DATE	BY
J. WARNER				
CHECKED	1	PRELIM. REPORT	JULY 17, 2024	CS
B. VAN RUITENBURG				
DRAWN C. SAUNDERS	SCALE 1: 1000			

0 10 20 30m

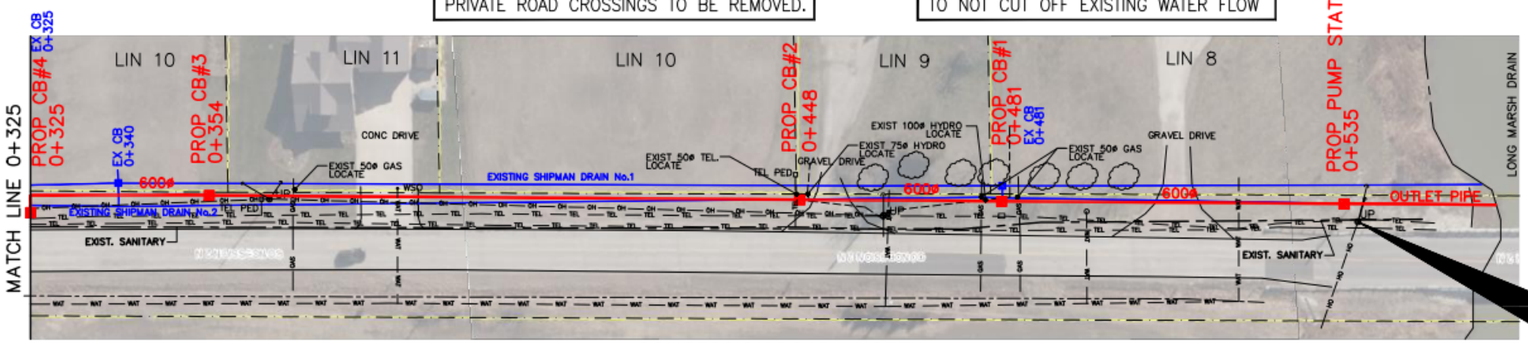
TOWN of AMHERSTBURG

SHIPMAN DRAIN OPTION 1
PLAN & PROFILE

Last Updated: June 27, 2024

NOTE:
ALL EXISTING SHIPMAN DRAIN No.1 & SHIPMAN DRAIN No.2 INFRASTRUCTURE INCLUDING CATCH BASINS, EXCEPT FOR PRIVATE ROAD CROSSINGS TO BE REMOVED.

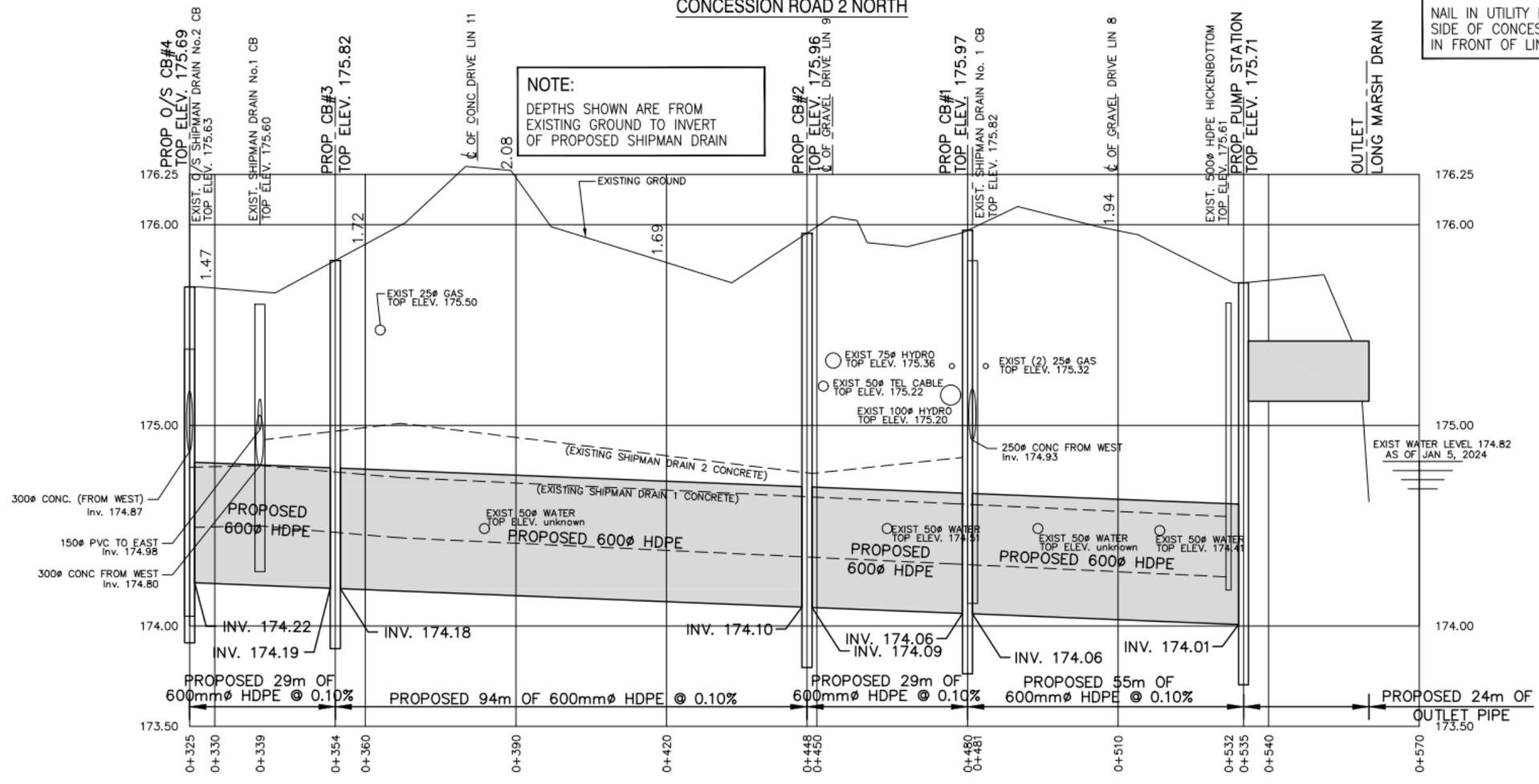
NOTE:
DURING INSTALLATION OF PROPOSED SHIPMAN DRAIN. CONTRACTOR TO ENSURE THAT EXISTING DRAIN REMAINS ACTIVE AS TO NOT CUT OFF EXISTING WATER FLOW



CONCESSION ROAD 2 NORTH

BM ELEV. 175.799
NAIL IN UTILITY POLE ON EAST SIDE OF CONCESSION ROAD #2 IN FRONT OF LIN 8

NOTE:
DEPTHS SHOWN ARE FROM EXISTING GROUND TO INVERT OF PROPOSED SHIPMAN DRAIN



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DRAWING NAME: Shipman Drain Plan & Profile 2 Option 1
PROJECT No. 2023-1509

APPROVED J. WARNER
CHECKED B. VAN RUITENBURG
DRAWN C. SAUNDERS

NO.	REVISIONS	DATE	BY
1	PRELIM. REPORT	JULY 17, 2024	CS

SCALE 1: 1000
0 10 20 30m

TOWN of AMHERSTBURG

SHIPMAN DRAIN OPTION 1
PLAN & PROFILE

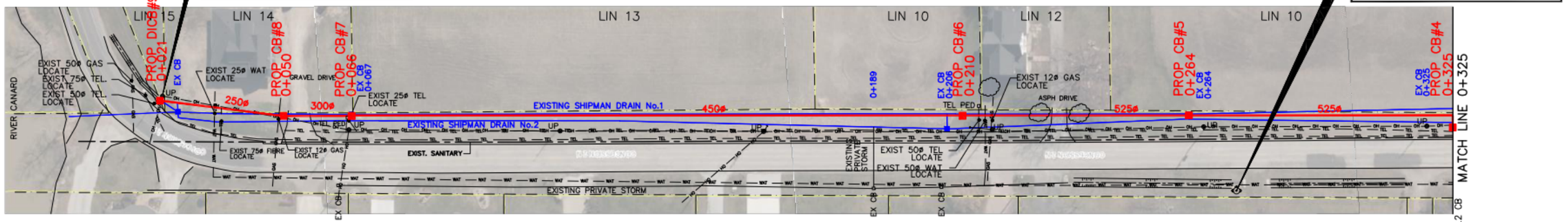
Last Updated: June 27, 2024

BM ELEV. 175.712
NAIL IN UTILITY POLE ON EAST SIDE OF CONCESSION ROAD #2 IN FRONT OF LIN 15

NOTE:
ALL EXISTING SHIPMAN DRAIN No.1 & SHIPMAN DRAIN No.2 INFRASTRUCTURE INCLUDING CATCH BASINS, EXCEPT FOR PRIVATE ROAD CROSSINGS TO BE REMOVED.

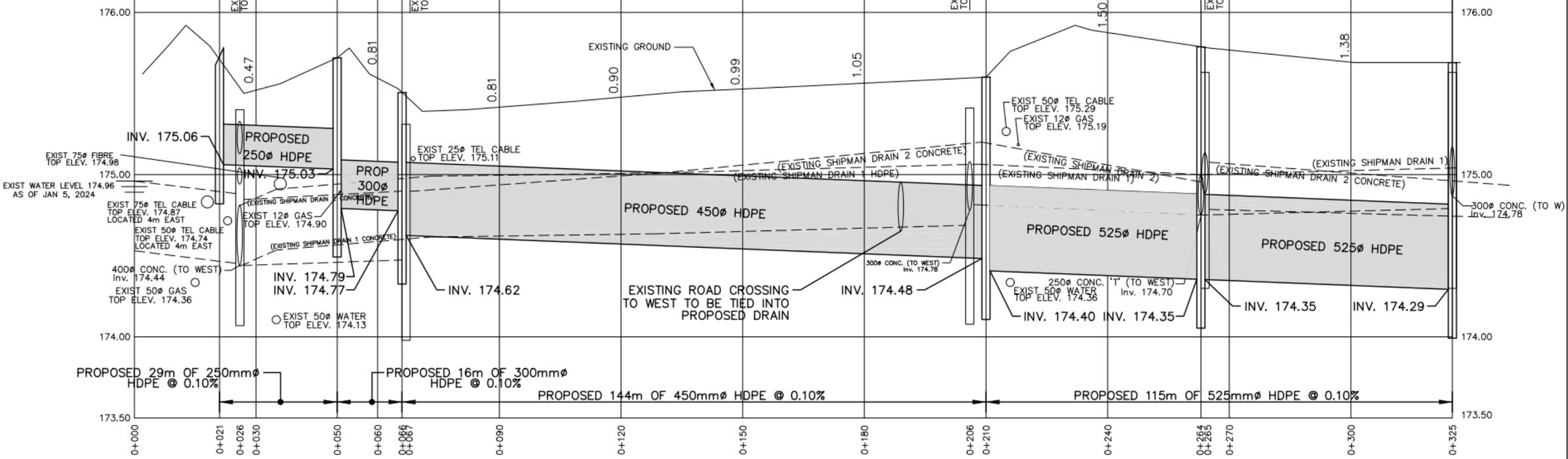
NOTE:
DURING INSTALLATION OF PROPOSED SHIPMAN DRAIN. CONTRACTOR TO ENSURE THAT EXISTING DRAIN REMAINS ACTIVE AS TO NOT CUT OFF EXISTING WATER FLOW

BM ELEV. 176.491
TOP SPINDLE OF FIRE HYDRANT LOCATED IN FRONT OF MN 2154



CONCESSION ROAD 2 NORTH

NOTE:
DEPTHS SHOWN ARE FROM EXISTING GROUND TO INVERT OF PROPOSED SHIPMAN DRAIN



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

DRAWING NAME: Shipman Drain Plan & Profile 1 Option 2

PROJECT No. 2023-1509

APPROVED	NO.	REVISIONS	DATE	BY
J. WARNER				
CHECKED	1	PRELIM. REPORT	JULY 17, 2024	CS
B. VAN RUITENBURG				
DRAWN C. SAUNDERS				

SCALE 1: 1000
0 10 20 30m

TOWN of AMHERSTBURG

SHIPMAN DRAIN OPTION 2
PLAN & PROFILE

Last Updated: June 27, 2024

NOTE:
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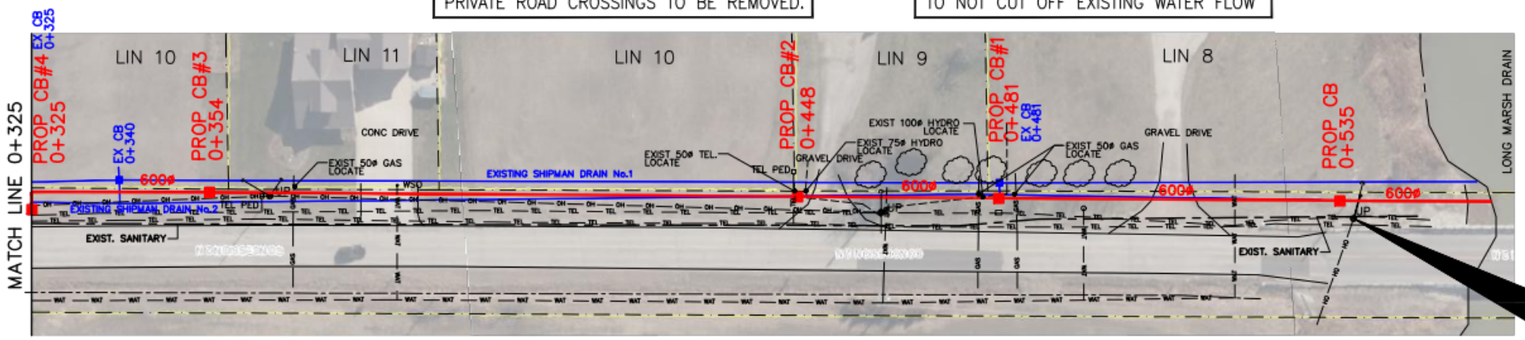
NOTE:
DURING INSTALLATION OF PROPOSED SHIPMAN DRAIN. CONTRACTOR TO ENSURE THAT EXISTING DRAIN REMAINS ACTIVE AS TO NOT CUT OFF EXISTING WATER FLOW



BM ELEV. 175.799
NAIL IN UTILITY POLE ON EAST SIDE OF CONCESSION ROAD #2 IN FRONT OF LIN 8

NOTE:
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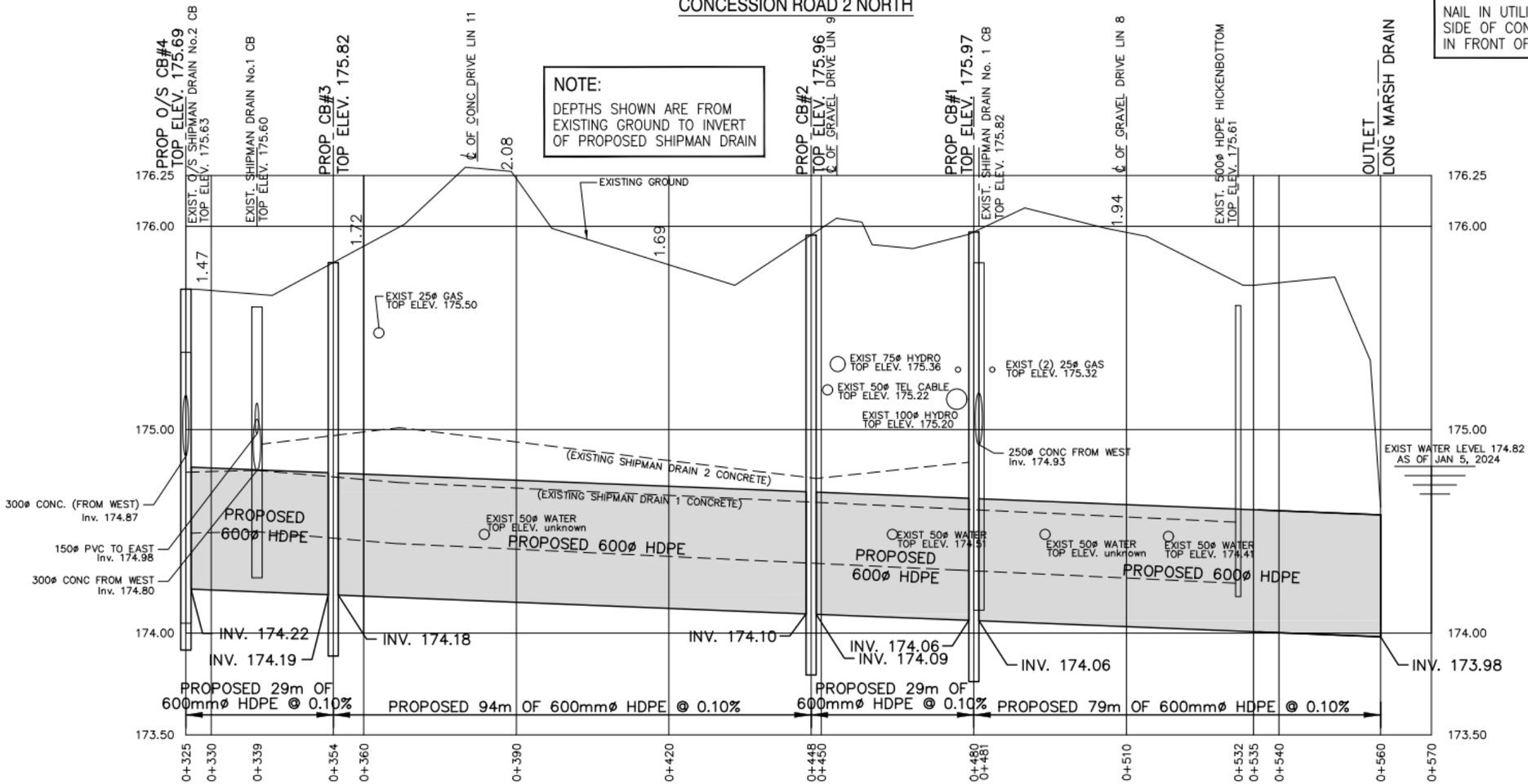

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DRAWING NAME: Shipman Drain Plan & Profile 2 Option 2
PROJECT No. 2023-1509

APPROVED	NO.	REVISIONS	DATE	BY
J. WARNER				
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B. VAN RUITENBURG				
DRAWN				
C. SAUNDERS				

SCALE 1: 1000
0 10 20 30m

TOWN of AMHERSTBURG

SHIPMAN DRAIN OPTION 2
PLAN & PROFILE

Last Updated: June 27, 2024

BM ELEV. 175.712
NAIL IN UTILITY POLE ON EAST SIDE OF CONCESSION ROAD #2 IN FRONT OF LIN 15

NOTE:
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NOTE:
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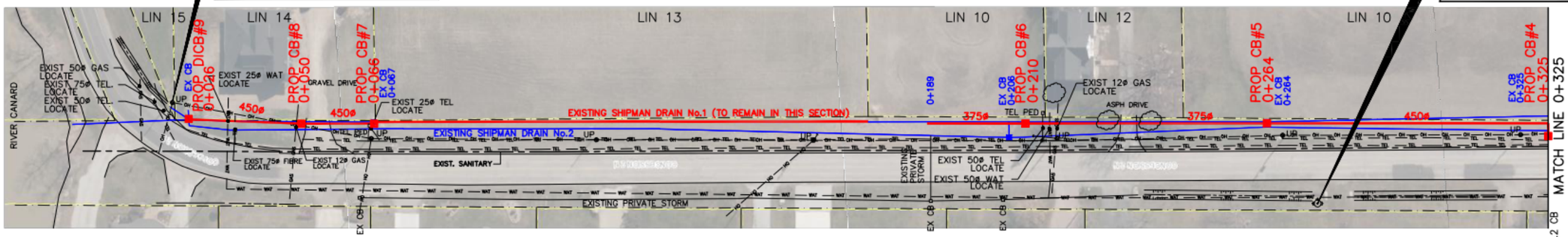

CONCESSION ROAD 2 NORTH

NOTE:
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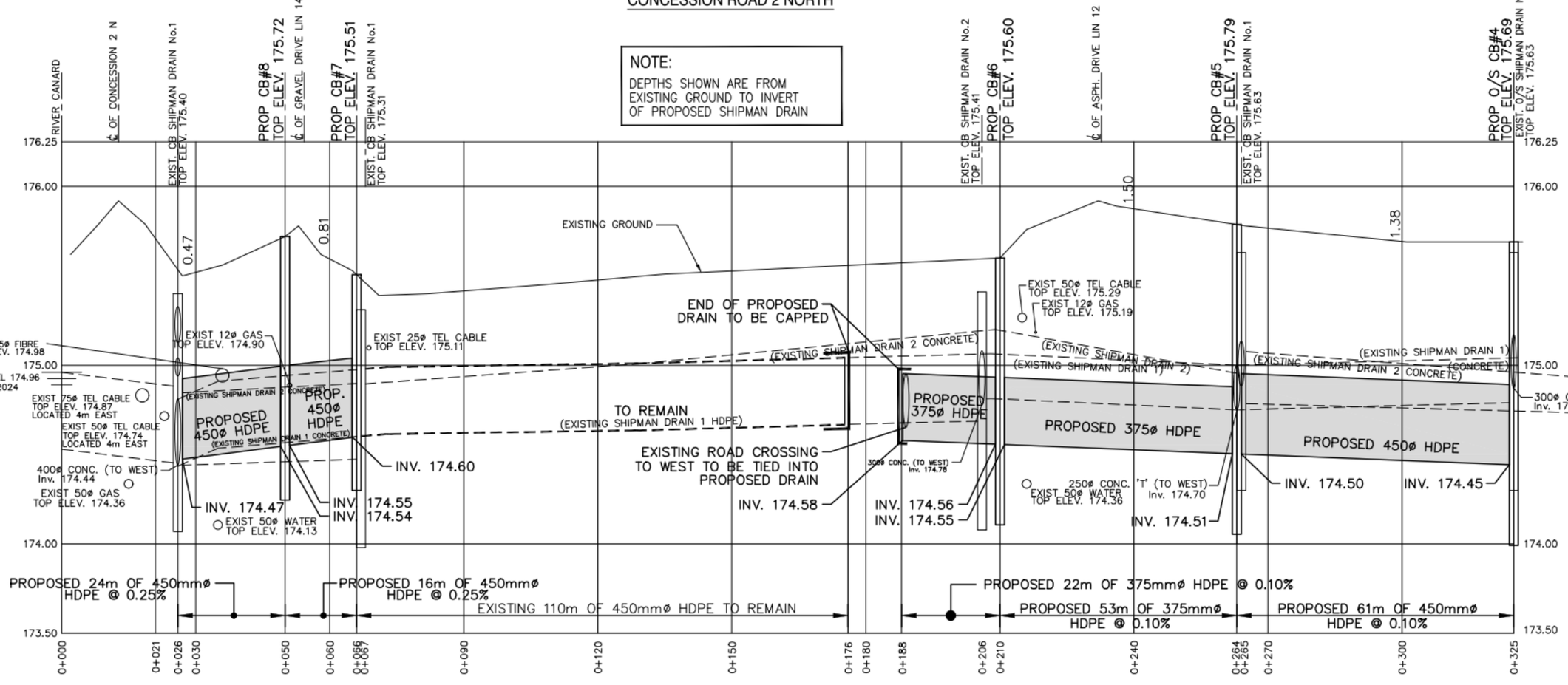

Dobbin Engineering Inc.
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Petrolia Ontario, N0N 1R0
Phone: (519) 882-0032 Fax: (519) 882-2233

DRAWING NAME: Shipman Drain Plan & Profile 1 Option 3
PROJECT No. 2023–1509

APPROVED	NO.	REVISIONS	DATE	BY
J. WARNER				
CHECKED	1	PRELIM. REPORT	JULY 17, 2024	CS
B. VAN RUITENBURG				
DRAWN	SCALE 1: 1000			
C. SAUNDERS	0 10 20 30m			

TOWN of AMHERSTBURG

SHIPMAN DRAIN OPTION 3
PLAN & PROFILE

6
OF 7

Last Updated: June 27, 2024

NOTE:
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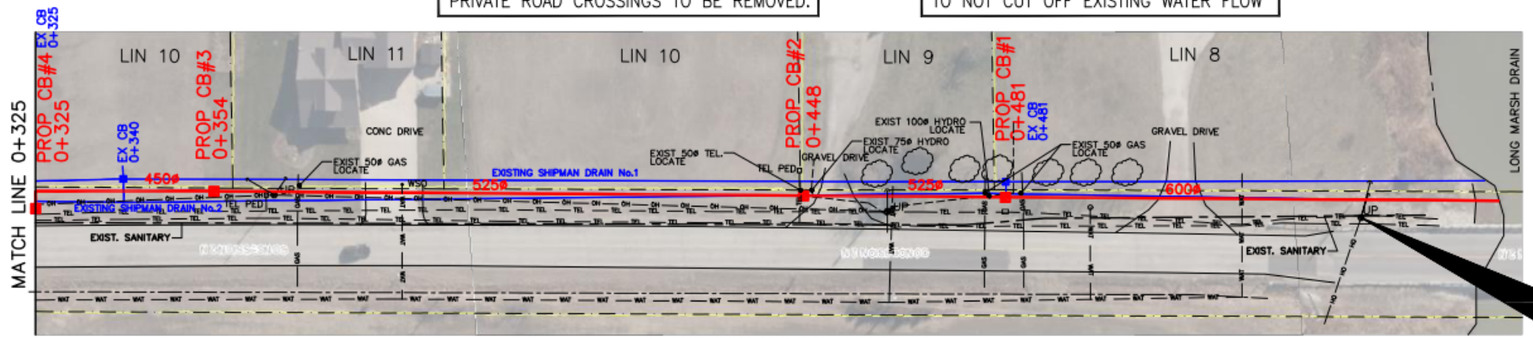
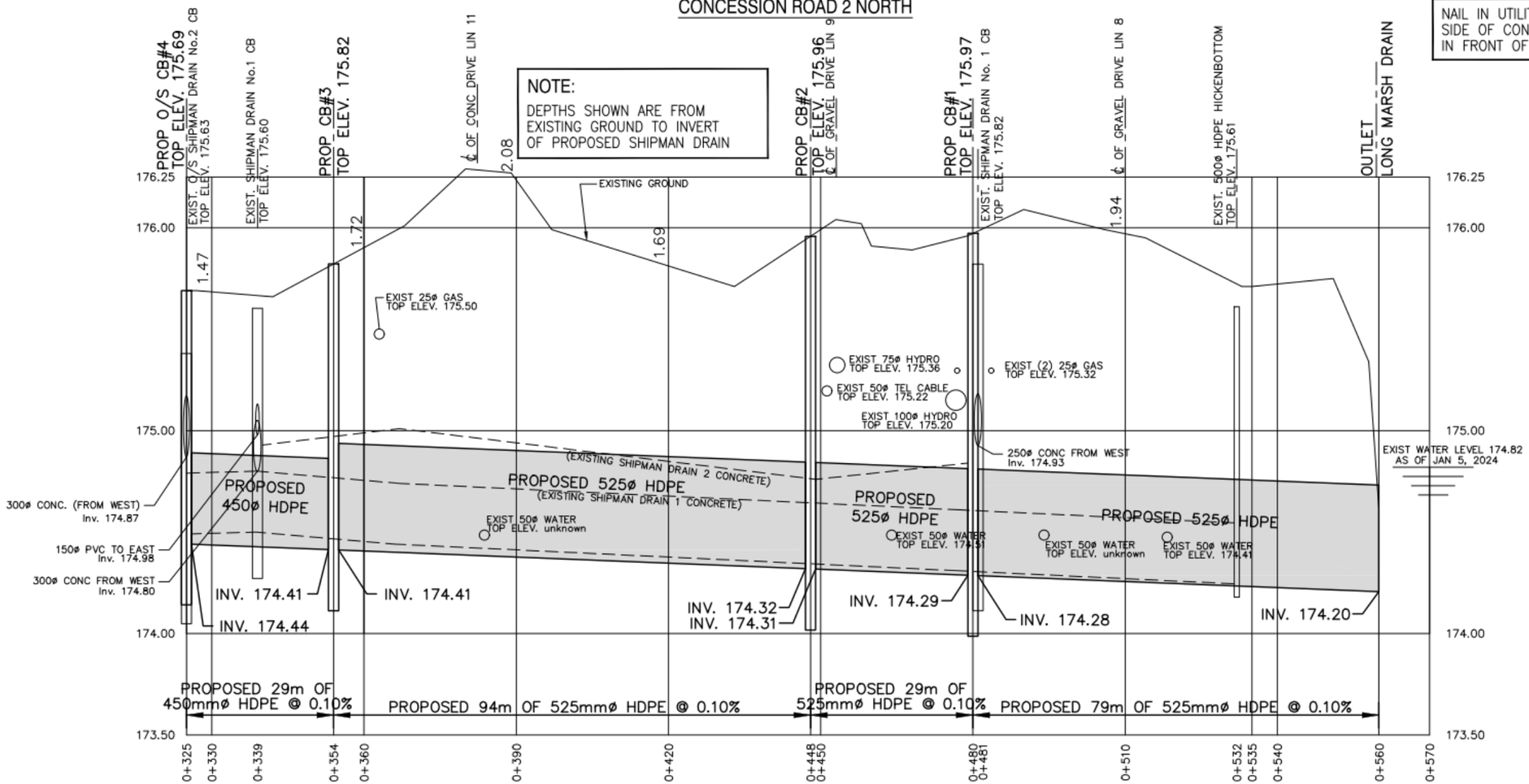


BM ELEV. 175.799
NAIL IN UTILITY POLE ON EAST SIDE OF CONCESSION ROAD #2 IN FRONT OF LIN 8

CONCESSION ROAD 2 NORTH

NOTE:
DEPTHS SHOWN ARE FROM EXISTING GROUND TO INVERT OF PROPOSED SHIPMAN DRAIN



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DRAWING NAME: Shipman Drain Plan & Profile 2 Option 3
PROJECT No. 2023–1509

APPROVED	NO.	REVISIONS	DATE	BY
J. WARNER				
CHECKED	1	PRELIM. REPORT	JULY 17, 2024	CS
B. VAN RUITENBURG				
DRAWN				
C. SAUNDERS				

SCALE 1: 1000
0 10 20 30m

TOWN of AMHERSTBURG

SHIPMAN DRAIN OPTION 3
PLAN & PROFILE

7
OF 7

Last Updated: June 27, 2024

R. Dobbin Engineering Inc.
4218 Oil Heritage Road
Petrolia, Ontario, N0N 1R0
Phone: (519) 882-0032 Fax: (519) 882-2233
www.dobbineng.com

August 14, 2024

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

Gentlemen and Mesdames:

Re: General Drain (2024)

As instructed, R. Dobbin Engineering Inc. has undertaken an examination of Lots 4 and 5, Concession 1 with regards to providing a legal outlet for the properties with Index Numbers 3, 4, 5, 7, 10, 11, 12, 13, 14 and 15.

This is a Reconsidered Report based on a June 4, 2024 Meeting to Consider.

Authorization under the Drainage Act

This Engineers Report that has been prepared under Sections 4 of the Drainage Act as per a petition from affected Landowners.

A petition has been received by the Town of Amherstburg. Section 4 (1) of the Drainage Act states:

A petition for the drainage by means of a drainage works of an area requiring drainage as described in the petition may be filed with the Clerk of the local Municipality in which the area is situate by,

(a) the majority in number of the owners, as shown by the last revised assessment roll of lands in the area, including the owners of any roads in the area;

(b) the owner or owners, as shown by the last revised assessment roll, of lands in the area representing at least 60 per cent of the hectarage in the area;

(c) where a drainage works is required for a road or part thereof, the engineer, road superintendent or person having jurisdiction over such road or part, despite subsection 61(5);

(d) where a drainage works is required for the drainage of lands used for agricultural purposes, the Director. R.S.O. 1990, c.D.17, s.4(1).

The petition was determined to be valid based on Section 4 (1) (a) and (b).

Existing Drainage

The existing private drain outlets into the Detroit River via two 450mm diameter concrete/pvc pipes as shown on the detailed drawings. The two pipes intersect at the outlet of a rip rapped channel. The rip rap channel extends easterly where it provides an outlet for 900mm dia. and 750mm dia. road crossing under Sandwich Street North (County Road 20). From there an open channel generally continues easterly to Station 0+616. The channel then continues southeasterly, easterly and southerly to east of the southeast corner of the property with Index Number 15.

Currently the properties with Index Numbers 1 through 9, except 5, utilize the channel as an outlet. The property with Index Number 5 has petitioned to be included in the drainage area for future outlet potential. Any future connection to the drain would be subject to the required approvals from the Town of Amherstburg.

Approvals

The general plan and the DFO's Request for Review Form were submitted to ensure compliance. On February 7th, 2024 the DFO responded with an email, included in Appendix B, containing their approval.

The Essex Region Conservation Authority (ERCA) was contacted to inform them of the project. The ERCA confirmed that an environmental appraisal will not be required on this project.

A hydrology and hydraulic report were prepared and submitted for review to the ERCA. On April 4th, 2024 ERCA staff emailed confirming that they would be able to support the project. A permit must be issued by the ERCA prior to any construction taking place.

Onsite Meeting

An onsite meeting was held on August 4th, 2023. The following were present:

- Josh Warner (Engineer, R. Dobbin Engineering)
- Sam Paglia (Drainage Superintendent, Town of Amherstburg)
- Daniel Caster (Landowner)
- Hal Kersey (Landowner Representative)

The following was discussed at the site meeting:

- General discussion of the Drainage Act and Landowners rights under the Drainage Act.
- D. Caster owns parcels with identification number 10 to 15 and is looking to develop the properties. He expressed interest in utilizing the proposed drain as an outlet should the properties be developed. In order to service the properties, a petition would need to be received by the Town. The owner was going to investigate whether they would petition or utilize the existing storm system on Brunner Avenue.

Discussion

The owner of the properties with Index Numbers 10 to 15 submitted a petition to investigate the use of the proposed drain as an outlet. As part of this investigation, it was determined that a forcemain servicing these lands downstream of the existing culverts would be the most economical option. Following the cost estimates, the owner decided to proceed with extending the proposed drain to serve as an outlet for their properties.

The property with Index Number 5 currently outlets its water through Brunner Avenue. Any change to have this proposed drain serve as the outlet for the property shall be approved through the site plan control agreement with the Planning Department.

On January 8, 2024 the owner of the properties with Index Numbers 3 and 4 requested that the channel by moved off their property onto the property with Index Number 6. The owner stated that this was previously agreed to with the owner of the property with Index Number 6.

Meeting to Consider the Report

A report dated May 7, 2024 was submitted to the Drainage Board, with a Meeting to Consider the Report held on June 4, 2024.

A Landowner representative for the parcel with Index Number 9 expressed concerns with the work being completed on the property with Index Number 9 and the additional area being brought into the watershed. The Drainage Board referred the report back to discuss further with this Landowner and make any required changes to the report.

Subsequent Meeting and Discussion

A subsequent meeting was held on June 12, 2024. The following were present:

- Josh Warner (Engineer, R. Dobbin Engineering)
- Sam Paglia (Drainage Superintendent, Town of Amherstburg)
- Daniel Caster (Landowner)
- Hal Kersey (Landowner Representative)
- Dan Huneault (Landowner Representative)
- James Bryant (ERCA)
- Kevin Money (ERCA)
- Line Florian (ERCA)

Dan Huneault stated that they will be looking to get a third-party opinion on the proposed work and how it will affect the Marina property (Parcel Number 9). It was discussed that the drain at the lower end should be flushed and videoed in order to determine its condition. Josh Warner stated that the report will be revised to add additional rip rap to the rip rap channel. It was discussed that should the owner of Parcel Number 9 want to investigate a different route for the drainage works that should be requested to the Drainage Engineer and that any additional cost would be assessed to the requesting property. ERCA expressed concerns with their assessment as part of the project.

Correspondence from the representative for Parcel Number 9 was received on August 9, 2024 and a response was provided on August 12, 2024. R. Dobbin Engineering believes all concerns related to the project (mainly quality control from the individual sites and quantity of water from the additional drainage area) have been addressed through the report and email correspondence.

Video

A video of the lower end of the drain (Station 0+000 to 0+016 and 1+000 to 1+063) was completed on August 7, 2024. There were sections that had some longitudinal cracking and two sections that had broken connections with the potential for soil infiltration. Overall, the condition of the pipe was okay. It is recommended that the broken joints be repaired. Specifications have been included in this report should future replacement be required.

Recommendations

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

1. The existing infrastructure identified in the plan and profile drawings shall be incorporated as part of the General Drain. This includes the following:
    - Two 450mm Concrete/PVC Storm Sewers outletting into the Detroit River (Station 0+00 to 0+016 and 1+000 to 1+063) complete with minor repairs
    - Rip Rap Channel from Station 0+016 to 0+028 complete with minor repairs
    - 900mm dia. CSP from Station 0+028 to 0+047
    - 750mm dia. CSP from Station 0+047 to 0+065
    - Catch basins at Stations 0+047, 0+060 and 1+022
    - Open Channel from Station 0+065 to 0+207 including a 2010x1530mm dia. CSPA culvert at Station 0+196

2. An additional 600mm dia. Concrete Pipe shall be installed at the outlet of the Detroit River to the Rip Rap Channel to increase the capacity of the system (Station 2+000 to 2+017).

3. The channel between Station 0+207 and 0+616 shall be moved off of the properties with Index Numbers 3 and 4 and placed on the property with Index Number 6. This new channel shall form part of the drainage works. As part of the move off the channel shall be cleaned out from Station 0+196 to 0+207 and one private culvert shall be replaced and relocated and one culvert shall be removed. The private culvert adjacent the channel at Station 0+616 shall remain private after completion of the drainage works.

4. A forcemain shall be installed in order to provide an outlet for the properties with Index Numbers 10 to 15 (Station 0+616 to 0+738).

5. A storm sewer shall be installed from the channel to the north property line of the property with L.I.N. 4 in order to service future development of L.I.N. 3 and 4.

Design

The General Drain has been designed to accommodate the 1:100-year storm event with developed properties restricting their flows to a maximum of the 2 year pre-development rate. The combined flow from the properties with Index Numbers 10 to 15 shall be restricted to a release rate of 220 L/s.

Hydraulically, the lower end (downstream of the rock shute) of 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. This alternative was not analyzed due to the large upfront costs.

Estimate of Cost

It is recommended that the work be carried out in accordance with the accompanying Specification of Work, Plans and Profiles, which form part of this Report. There has been prepared an Estimate of Cost in the amount of $504,000.00, including the estimated cost of engineering and contract administration. Appearances before appeal bodies have not been included in the cost estimate. A Plan has been prepared showing the location of the work and the approximate drainage area.

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.

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

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

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

A Schedule of Assessment for 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 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 or road authority shall be assessed to that organization requiring the permit, approval, or extra work.

The proposed work has generally been assessed in the following manner, including all estimated fees, taxes and disbursements:

1. In Accordance with Section 26 of the Drainage Act the increased cost of the drainage works caused by the existence of the public utility or road authority has been assessed to the public utility or road authority. This includes costs for engineering of future replacements, increases in construction cost as a result of the public utility or road authority, incorporation of the existing infrastructure and the costs to locate and survey the public utilities.

2. The cost of incorporation of the existing infrastructure and the proposed work within the properties with Identification Numbers 8 and 9 has been assessed with 20% of the cost applied as a benefit assessment to the property and the remainder of the cost assessed as an outlet assessment to upstream lands and roads based on equivalent hectares.

3. The incorporation of the culvert at Station 0+196 has been assessed as a benefit assessment to the property with Identification Number 7.

4. The move off of the channel on the properties with Index Numbers 3 and 4 has been assessed with the increased costs beyond incorporation and a cleanout of the existing channel assessed to the properties with Index Numbers 3 and 4 as a benefit assessment. The pipe between Station 3+000 and 3+014 has been assessed as a benefit assessment, with the cost split evenly between the properties with Index Numbers 3 and 4.

5. The remaining costs of the drainage works has generally been assessed with 70% of the cost applied as a benefit assessment to the abutting property and the remainder of the cost assessed as an outlet assessment to upstream lands and roads based on equivalent hectares.

All final costs included in the cost estimate of this report shall be pro-rated based on the Schedule of Assessment. Any additional costs shall be assessed in a manner as determined by the Engineer.

Allowances

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

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

Under Section 31 of the Drainage Act, the Engineer shall determine the amount to be paid for an existing drain that was not constructed on requisition or petition under this Act or any predecessor of this Act. The drain may be incorporated in whole or in part in a drainage works, the engineer in the report shall estimate and allow in money to the owner 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 29 of the Drainage Act for right-of-way and as per Section 30 of the Drainage Act for damages to lands and crops. Allowances for right of way are based on a land value of $40,000 per hectare. Allowances for damages are based on $4,000 per hectare. Allowances under Section 31 of the Drainage Act have been paid for the existing pipes, channel and culverts.

Access and Working Area

Access for construction and future maintenance of the drainage works shall be from Brunner Avenue and Sandwich Street North (County Road 20) and generally along the length of the drainage works or existing laneways as determined by the Engineer or Drainage Superintendent. Access shall be restricted to a width of 6m.

The working area for construction of the storm sewer between Station 2+000 and 2+017 shall be restricted to a width of 15m normally centered on the proposed drain. The working area for construction between Station 0+016 and 0+028 shall be restricted to a width of 10m from the north/west side of the rip rap channel. The working area for construction between Station 0+196 and 0+616 shall be restricted to 10m south of the existing channel to 10m north of the proposed channel and shall extend 10m past the private culvert adjacent Station 0+616. The working area for the forcemain between Station 0+616 to 0+738 shall extend easterly for 15m from the existing fence on the property line at the east edge of the property with L.I.N. 3. The working area for construction of the storm sewer between Station 3+000 and 3+014 shall be restricted to a width of 15m normally centered on the proposed drain.

The working area for future maintenance of the drain shall be restricted to a width of 10m for the open channel (Station 0+016 to 0+028 and 0+065 to 0+616) and 15m for the

enclosed and storm portions (0+000 to 0+016, 0+028 to 0+065, 0+616 to 0+725, 1+000 to 1+063, 2+000 to 2+017 and 3+000 to 3+014). The working area for future maintenance shall be along the south side of the channel from Station 0+065 to 0+196 and from the north or south side of the channel from Station 0+196 to 0+616, as agreed to with the Landowner. The working area for future maintenance shall be along the west side of the channel from Station 0+016 to 0+028. The working area shall generally be centered on the closed drain, except from Station 0+616 to 0+738 where it shall extend easterly from the existing fence on the property line at the east edge of the property with Index Number 3.

Access for future culvert maintenance and channel repair on a single property shall be from the properties in which the culvert or channel is being repaired or maintained. If maintenance is being done on multiple properties access shall be gained from the nearest roadway and shall be along the length of the drainage works. The working area at each culvert shall extend 10 metres from the bank on both sides and for 10 metres along the channel on either side of the culvert.

Access for construction or future maintenance shall extend to any proposed locations for placement of excavated material.

Restrictions

No trees and shrubs shall be planted nor shall permanent structures be erected within 5 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 in which the trees or shrubs are located.

There is currently a Directors Order from the Ministry of Environment, Conservation and Parks on the property with Index Number 6. The representative of the owner, currently Jacobs, shall be responsible for enforcing and managing any requirements of the Directors Order through construction and maintenance on the drain. Any additional cost shall be assessed to the property with Index Number 6. If there is not a valid representative for the property, at the discretion of the Drainage Superintendent or Engineer, one shall be hired by the Town and any costs shall be assessed to the property with Index Number 6.

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. Eligibility for grant is at the discretion of Ontario Ministry of Agriculture, Food and Rural Affairs (OMAFRA) according to their Agricultural Drainage Infrastructure Program (ADIP) policies.

There are not currently any properties within the watershed that would be eligible for the grant.

Maintenance

The General Drain shall be maintained and repaired with the specifications and drawings contained in this Engineer's Report. The drain shall be maintained and repaired in the same relative portions as contained in the applicable Schedule of Maintenance contained in this report unless otherwise specified. The parcel with Index Number 6 shall be removed for any maintenance repairs on the forcemain. The additional cost of trucking shall be assessed to the property requesting the trucking. The assessments for future maintenance for the parcels with identification numbers 5 and 10 to 15 (except if maintenance is performed on the forcemain portion of the drainage works for parcels 10 to 15) shall be $0 until such time as they connect to the drainage works. Once fully developed, the parcels with identification numbers 10 to 15 shall be blocked assessed under this report with proportions to be determined through Section 65 of the Drainage Act.

The culvert at Station 0+196 shall be maintained and repaired at the expense of the property with Identification Number 7. The storm sewer and basins between Station 0+028 and 0+065 shall be 100% assessed to the owner of Sandwich Street North (County Road 20) as per Section 26 of the Drainage Act. This pipe shall be replaced in the future with 900mm dia. pipe at a consistent grade from Station 0+028 to 0+065 (approximately 6.57%).

Should the existing 450mm dia. storm sewers between Station 0+000 to 0+016 and 1+000 to 1+063 require replacement a single 750mm dia. concrete storm sewer may be installed, at the discretion of the Drainage Superintendent, between Stations 0+000 and 0+016. Should this be installed, the existing pipes (Station 0+000 to 0+016 and 1+000 to 1+063) shall be abandoned as part of the drainage works and may be removed or plugged at the discretion of the Drainage Superintendent. The proposed pipe shall match the obvert of the existing pipe. The cost of such work or repair work in this section (Station 0+000 to 0+016, 1+000 to 1+063 and 2+000 to 2+017) shall be assessed with 15%

assessed to the parcel with Index Number 8, 10% assessed to the parcel with Index Number 9 and the remainder assessed to upstream lands and roads based on equivalent hectares contained in the Schedule of Maintenance. The storm sewer between Station 3+000 and 3+014 shall be maintained and repaired with 50% assessed to the property with L.I.N. 3 and 50% assessed to the property with L.I.N. 4.

There is currently a Directors Order from the Ministry of Environment, Conservation and Parks on the property with Index Number 6. The representative of the owner, currently Jacobs, shall be responsible for enforcing and managing any requirements of the Directors Order through construction and maintenance on the drain. Any additional cost shall be assessed to the property with Index Number 6. If there is not a valid representative for the property, at the discretion of the Drainage Superintendent or Engineer, one shall be hired by the Town and any costs shall be assessed to the property with Index Number 6.

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,

Josh Warner, P. Eng

General Drain
Town of Amherstburg
August 14, 2024

ALLOWANCES

Allowances have been made as per Sections 29, 30 & 31 of the Drainage Act.

Conc.	Lot or part	Parcel Number	Owner	Section 29	Section 30	Section 31	Total
1	Pt. Lot 5	3	1000083282 Ontario Inc.	$ -	$ 1,320	$ -	$ 1,320
	Pt. Lot 5	4	1000083282 Ontario Inc.	$ -	$ 1,160	$ -	$ 1,160
	Pt. Lot 5-8	6	Amherstburg Land Holdings Limited	$ 33,220	$ 3,110	$ 230	$ 36,560
	Pt. Lot 5	7	1603844 Ontario Inc.	$ 4,480	$ -	$ 20,100	$ 24,580
	Pt. Lot 3-6	8	Essex Region Conservation Authority	$ 950	$ 240	$ 15,800	$ 16,990
	Pt. Lot 3-5	9	Jones Realty Inc.	$ 240	$ 40	$ 4,000	$ 4,280
	Pt. Lot 4	10	1924976 Ontario Inc.	$ -	$ 100	$ -	$ 100
	County Road 20 (Sandiwch Street North)		County of Essex	$ 440	$ -	$ 9,250	$ 9,690
			TOTAL ALLOWANCES	$39,330	$5,970	$49,380	$94,680

Item Description (Supply and Install New)	Quantity	Unit	Unit Price	Total
Pre-Construction Meeting	1.0	LS	500	500
Silt Fence	1.0	LS	400	400
Restoration and Hydroseeding	1.0	LS	20,000	20,000
Repair and Add Additional Rip Rap in Rip Rap Channel (Station 0+016 to 0+028)	15.0	tonne	100	1,500
Dig Up and Repair Pipe at Lower End	2.0	each	1,000	2,000
Proposed Storm Sewer from Station 2+000 to 2+017				
Provisional: De-Watering of Site	1.0	LS	20,000	20,000
Supply and Install Triton Type 1 DOT Turbidity Curtain and complete fish exclusion and rescue prior to commencing work	1.0	LS	6,000	6,000
Hole in Steel Retaining Wall and Water Tight Connection of Pipe to Retaining Wall for 600mmø Storm Pipe	1.0	LS	1,500	1,500
Remove and Re-Install Deck Boards	1.0	LS	500	500
Supply and Install new, 600mmø (140-D) Concrete Pipe c/w Bedding, Backfill and Geogrid (Station 2+000 to 2+017)	17.0	m	1,500	25,500
Trucking and Disposal of Excess Material	1.0	LS	2,000	2,000

Item Description (Supply and Install New)	Quantity	Unit	Unit Price	Total
Channel Move Off (Station 0+207 to 0+616)				
Brushing and Tree Remvoal	1.0	LS	1,000	1,000
Remove and Dispose of Existing Fence along North Property Line of L.I.N. 3 and 4	400.0	m	8	3,200
Excavation of New Open Channel (Station 0+207 to 0+616)	409.0	m	70	28,630
Truck Excavated Material to Designated Location on Site	1.0	LS	6,000	6,000
Extend Tile Drain Oultets to New Channel	2.0	ea	400	800
Removal of Existing Culvert and Backfill at Station 0+484	1.0	LS	1,500	1,500
Fill in Portions of Existing Open Channel on Property with L.I.N. 6 (Station 0+207, 0+484 and Culvert near 0+616)	1.0	LS	4,500	4,500
Rip Rap	100.0	tonne	100	10,000
Storm Service to L.I.N. 3 & 4 (Station 3+000 to 3+014)				
Supply and Install new, 600mmø HDPE Pipe c/w Bedding and Backfill	14.0	m	800	11,200
Rip Rap at Outlet	15.0	tonne	100	1,500
Rodent Grate at Outlet	1.0	LS	800	800
Private Culvert to be Replaced and Relocated at Channel Adjacent Station 0+616				
Removal of Existing Culvert and Backfill	1.0	LS	1,500	1,500
Supply and Install new, 900mmø HDPE Pipe c/w Bedding and Backfill	32.0	m	1,000	32,000
Rip Rap Endwalls	25.0	tonne	100	2,500

Item Description (Supply and Install New)	Quantity	Unit	Unit Price	Total
Proposed Forcemain (Station 0+616 to 0+738)				
Brushing and Tree Removal	1.0	LS	1,500	1,500
Remove and Reinstall Fence near Station 0+738	1.0	LS	800	800
Rip Rap at Pipe Outlet at Station 0+616	25.0	tonne	100	2,500
Rodent Grate at Station 0+616	1.0	ea	200	200
Supply and Install new, 200mmø PVC Forcemain c/w Bedding, and Backfill (Station 0+616 to 0+738)	122.0	m	400	48,800
Pressure and Leakage Test of Forcemain	1.0	LS	6,000	6,000
Restoration	1.0	LS	2,000	2,000
Contingency	1.0	LS	31,400	31,400

Sub Total	278,230
Allowances	94,680
Survey, Design, Report & Meetings	81,620
Video the Existing Storm Sewer	1,800
Completing AODA Compliant Report	1,800
Estimate for Tendering, Contract Administration and Inspection	38,000
ERCA Fee	800
Total Estimate excluding HST	**496,930**
Non-Recoverable HST (1.76%)	7,070
Total Estimate	**$504,000**

SCHEDULE OF ASSESSMENT

Conc.	Lot or Part	Affected Acres	Affected Hect.	Parcel Number	Roll No.	Owner	Benefit	Outlet	Total
3. Municipal Lands									
	County Road 20	3.71	1.50			County of Essex	$ 9,690	$ 6,468	$ 16,158
							$ 9,690	$ 6,468	$ 16,158
4. Privately Owned Non-Agricultural Lands									
1	Pt. Lot 3	0.49	0.20	1	50000031800	Essex Terminal Railway Company	$ -	$ 1,086	$ 1,086
	Pt. Lot 4-8	45.71	18.50	2	42000007960	Allied Chemicals Canada Inc.	$ -	$ 50,221	$ 50,221
	Pt. Lot 5	4.62	1.87	3	42000007920	1000083282 Ontario Inc.	$ 111,782	$ 3,639	$ 115,421
	Pt. Lot 5	4.87	1.97	4	35000000303	1000083282 Ontario Inc.	$ 98,571	$ 3,833	$ 102,404
	Pt. Lot 5	2.82	1.14	5	35000000300	1603941 Ontario Inc.	$ 784	$ 1,926	$ 2,710
	Pt. Lot 5-8	21.99	8.90	6	42000007900	Amherstburg Land Holdings Limited	$ 8,765	$ 20,359	$ 29,124
	Pt. Lot 5	3.34	1.35	7	35000000302	1603844 Ontario Inc.	$ 22,452	$ 2,281	$ 24,733
	Pt. Lot 3-6	0.00	0.00	8	35000000200	Essex Region Conservation Authority	$ 19,583	$ -	$ 19,583

Conc.	Lot or Part	Affected Acres	Affected Hect.	Parcel Number	Roll No.	Owner	Benefit	Outlet	Total
	Pt. Lot 3-5	0.00	0.00	9	35000000100	Jones Realty Inc.	$ 6,522	$ -	$ 6,522
	Pt. Lot 4	3.02	1.22	10	35000000650	1924976 Ontario Inc.	$ 12,824	$ 6,682	$ 19,506
	Pt. Lot 4	3.02	1.22	11	35000000640	1924976 Ontario Inc.	$ 12,824	$ 6,682	$ 19,506
	Pt. Lot 4	2.57	1.04	12	35000000620	Bell Mobility Cellular Inc.	$ 12,824	$ 5,696	$ 18,520
	Pt. Lot 4	4.00	1.63	13	35000000700	1924976 Ontario Inc.	$ 12,824	$ 8,927	$ 21,751
	Pt. Lot 4	9.99	4.06	14	35000000800	1924976 Ontario Inc.	$ 12,824	$ 22,235	$ 35,059
	Pt. Lot 4	4.00	1.62	15	35000000900	1924976 Ontario Inc.	$ 12,824	$ 8,872	$ 21,696
							$ 345,403	$ 142,439	$ 487,842

Total - Special Non-Proratable Assessments (Non-Agricultural)	$ 487,842
Total - Municipal Lands	$ 16,158
Total Assessment	$ 504,000

General Drain
Town of Amherstburg
August 14, 2024

ESTIMATED NET ASSESSMENT

Estimated Net Assessment Based on Actual Construction Cost (Grants Not Applicable to this Project)

Conc.	Lot or Part	Affected Acres	Affected Hect.	Parcel Number	Owner	Total Assessment	Allowances	Estimated Net Assessment
3. Municipal Lands								
	County Road 20	3.71	1.50		County of Essex	$ 16,158	$ 9,690	$ 6,468
4. Privately Owned Non-Agricultural Lands								
1	Pt. Lot 3	0.49	0.20	1	Essex Terminal Railway Company	$ 1,086		$ 1,086
	Pt. Lot 4-8	45.71	18.50	2	Allied Chemicals Canada Inc.	$ 50,221		$ 50,221
	Pt. Lot 5	4.62	1.87	3	1000083282 Ontario Inc.	$ 115,421	$ 1,320	$ 114,101
	Pt. Lot 5	4.87	1.97	4	1000083282 Ontario Inc.	$ 102,404	$ 1,160	$ 101,244
	Pt. Lot 5	2.82	1.14	5	1603941 Ontario Inc.	$ 2,710		$ 2,710
	Pt. Lot 5-8	21.99	8.90	6	Amherstburg Land Holdings Limited	$ 29,124	$ 36,560	$ (7,436)
	Pt. Lot 5	3.34	1.35	7	1603844 Ontario Inc.	$ 24,733	$ 24,580	$ 153
	Pt. Lot 3-6	0.00	0.00	8	Essex Region Conservation Authority	$ 19,583	$ 16,990	$ 2,593
	Pt. Lot 3-5	0.00	0.00	9	Jones Realty Inc.	$ 6,522	$ 4,280	$ 2,242
	Pt. Lot 4	3.02	1.22	10	1924976 Ontario Inc.	$ 19,506	$ 100	$ 19,406
	Pt. Lot 4	3.02	1.22	11	1924976 Ontario Inc.	$ 19,506		$ 19,506
	Pt. Lot 4	2.57	1.04	12	Bell Mobility Cellular Inc.	$ 18,520		$ 18,520
	Pt. Lot 4	4.00	1.63	13	1924976 Ontario Inc.	$ 21,751		$ 21,751
	Pt. Lot 4	9.99	4.06	14	1924976 Ontario Inc.	$ 35,059		$ 35,059
	Pt. Lot 4	4.00	1.62	15	1924976 Ontario Inc.	$ 21,696		$ 21,696
					Total	$ 504,000	$ 94,680	$ 409,320

SCHEDULE OF MAINTENANCE

To Maintain the General Drain from Station 0+016 to 0+738

Conc.	Lot or Part	Affected Acres	Affected Hect.	Parcel Number	Roll No.	Owner	Benefit	Outlet	Total	Equivalent Ha.
3. Municipal Lands										
	County Road 20	3.71	1.50			County of Essex	$ -	$ 3	$ 3	1.35
							$ -	$ 3	$ 3	
4. Privately Owned Non-Agricultural Lands										
1	Pt. Lot 3	0.49	0.20	1	50000031800	Essex Terminal Railway Company	$ -	$ 5	$ 5	0.18
	Pt. Lot 4-8	45.71	18.50	2	42000007960	Allied Chemicals Canada Inc.	$ -	$ 181	$ 181	6.48
	Pt. Lot 5	4.62	1.87	3	42000007920	1000083282 Ontario Inc.	$ 32	$ 11	$ 43	0.65
	Pt. Lot 5	4.87	1.97	4	35000000303	1000083282 Ontario Inc.	$ 46	$ 7	$ 53	0.69
	Pt. Lot 5	2.82	1.14	5	35000000300	1603941 Ontario Inc.	$ 22	$ 1	$ 23	0.40
	Pt. Lot 5-8	21.99	8.90	6	42000007900	Amherstburg Land Holdings Limited	$ 305	$ 49	$ 354	3.12
	Pt. Lot 5	3.34	1.35	7	35000000302	1603844 Ontario Inc.	$ 67	$ 2	$ 69	0.47
	Pt. Lot 3-6	0.00	0.00	8	35000000200	Essex Region Conservation Authority	$ 10	$ -	$ 10	0.00
	Pt. Lot 3-5	0.00	0.00	9	35000000100	Jones Realty Inc.	$ -	$ -	$ -	0.00

Conc.	Lot or Part	Affected Acres	Affected Hect.	Parcel Number	Roll No.	Owner	Benefit	Outlet	Total	Equivalent Ha.
	Pt. Lot 4	3.02	1.22	10	35000000650	1924976 Ontario Inc.	$ 47	$ 17	$ 64	0.43
	Pt. Lot 4	3.02	1.22	11	35000000640	1924976 Ontario Inc.	$ 12	$ 17	$ 29	0.43
	Pt. Lot 4	2.57	1.04	12	35000000620	Bell Mobility Cellular Inc.	$ 12	$ 15	$ 27	0.36
	Pt. Lot 4	4.00	1.63	13	35000000700	1924976 Ontario Inc.	$ 12	$ 23	$ 35	0.57
	Pt. Lot 4	9.99	4.06	14	35000000800	1924976 Ontario Inc.	$ 12	$ 57	$ 69	1.42
	Pt. Lot 4	4.00	1.62	15	35000000900	1924976 Ontario Inc.	$ 12	$ 23	$ 35	0.57
							$ 589	$ 408	$ 997	

Total - Special Non-Proratable Assessments (Non-Agricultural)	$ 997
Total - Municipal Lands	$ 3
Total Assessment	$ 1,000

General Drain
Town of Amherstburg
August 14, 2024

SPECIFICATION OF WORK

1. Location

The location of the proposed and future work outlined in this specification is in Lot 5, Concession 1 in the Town of Amherstburg.

2. Scope of Work

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

- Open channel improvements
- Future culvert replacements
- Future and proposed storm sewers and forcemain
- Catch basins and Manhole

3. General

Each tenderer must inspect the site prior to submitting their tender and satisfy themselves by personal examination as to the local conditions that may be encountered during this project. The Contractor shall make allowance in 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 Engineer or 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.

Measurement for Payment Clauses have not been included in these specifications and will be part of the Construction document. If the Construction document has not identified Measurement for Payment Clauses, the Contractor must notify the Town of Amherstburg or the Engineer and request clarification 2 days prior to pricing the project.

The Contractor is responsible for maintaining flow in the drain during construction. Any damage to any existing infrastructure during construction shall be repaired at the Contractors expense.

4. Plans and Specifications

These specifications shall apply and be part of the contract along with the General Specifications for Open Drains and the General Specifications for Closed 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, and supervision necessary to complete the work as shown in the plans and described in these specifications. Any work not described in these specifications shall be completed according to the Ontario Provincial Standard Specifications and Standard Drawings.

5. Health and Safety

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

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 submitted to the Engineer, Drainage Superintendent and County of Essex and 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.

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

6. 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, County of Essex and R. Dobbin Engineering Inc. 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.

7. MNRF Drain Registration

The Contractor is advised that the Town of Amherstburg has conducted an "Endangered Species Act Review" and has registered it’s 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.

8. Pre-Construction Meeting

There is a requirement for a pre-construction meeting to be held prior to any construction taking place. The meeting shall be scheduled by the Contractor. The Landowners, Engineer, County of Essex and the Town of Amherstburg shall be notified of the pre-construction meeting at least one week prior.

9. Access and Working Area

Access for construction and future maintenance of the drainage works shall be from Brunner Avenue and Sandwich Street North (County Road 20) and generally along the length of the drainage works or existing laneways as determined by the Engineer or Drainage Superintendent. Access shall be restricted to a width of 6m.

The working area for construction of the storm sewer between Station 2+000 and 2+017 shall be restricted to a width of 15m normally centered on the proposed drain. The working area for construction between Station 0+016 and 0+028 shall be restricted to a width of 10m from the north/west side of the rip rap channel. The working area for construction between Station 0+196 and 0+616 shall be restricted to 10m south of the existing channel to 10m north of the proposed channel and shall extend 10m past the private culvert adjacent Station 0+616. The working area for the forcemain between Station 0+616 to 0+738 shall extend easterly for 15m from the existing fence on the

property line at the east edge of the property with L.I.N. 3. The working area for construction of the storm sewer between Station 3+000 and 3+014 shall be restricted to a width of 15m normally centered on the proposed drain.

The working area for future maintenance of the drain shall be restricted to a width of 10m for the open channel (Station 0+016 to 0+028 and 0+065 to 0+616) and 15m for the enclosed and storm portions (0+000 to 0+016, 0+028 to 0+065, 0+616 to 0+725, 1+000 to 1+063, 2+000 to 2+017 and 3+000 to 3+014). The working area for future maintenance shall be along the south side of the channel from Station 0+065 to 0+196 and from the north or south side of the channel from Station 0+196 to 0+616, as agreed to with the Landowner. The working area for future maintenance shall be along the west side of the channel from Station 0+016 to 0+028. The working area shall generally be centered on the closed drain, except from Station 0+616 to 0+738 where it shall extend easterly from the existing fence on the property line at the east edge of the property with Index Number 3.

Access for future culvert maintenance and channel repair on a single property shall be from the properties in which the culvert or channel is being repaired or maintained. If maintenance is being done on multiple properties access shall be gained from the nearest roadway and shall be along the length of the drainage works. The working area at each culvert shall extend 10 metres from the bank on both sides and for 10 metres along the channel on either side of the culvert.

Access for construction or future maintenance shall extend to any proposed locations for placement of excavated material.

10. Traffic Control

Access and driveways to private properties shall not be obstructed longer than the minimum time necessary for the work and shall be reinstated as soon as possible all to the satisfaction of the Engineer. The Contractor shall schedule any obstruction of existing driveways with the owners at least two full working days in advance. Roads must be kept open to local traffic and all obstructions and diversions of traffic must be approved by the Engineer or Drainage Superintendent at least two (2) full working days in advance.

a) The Contractor shall supply, erect and maintain all detour signs and special signs necessary for detours to divert traffic from the area under construction as directed by the Drainage Superintendent or Engineer. All this work shall be at the Contractor’s expense.

b) The Contractor shall be responsible for supplying, erecting and maintaining all signs, supports, barricades, flashers, cones, etc. in the construction area and at the boundaries of the work as part of the above detours, all to the satisfaction of the Engineer or Drainage Superintendent. All this work shall be done by the Contractor at their own expense.

c) The Contractor shall not be allowed to proceed with construction activities unless proper signage and flagmen are present. Flagging procedures, signage and detours shall conform to the recommendations of Book 7, Temporary Conditions, Ontario Traffic Manual, issued by the Ministry of Transportation. Conformance shall be enforced by the Ministry of Labour Inspector.

The traffic control and signage plan, if required, shall be submitted to the Town of Amherstburg, the County of Essex and the Engineer prior to work commencing.

11. Benchmarks

The benchmarks are based on geodetic elevations. Elevations are available at the locations shown on the Plan and Profile drawings. Where these elevations are on existing structures to be replaced, they shall be transferred by the Contractor prior to the removal of the culvert.

12. Utilities

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

The Contractor is responsible for coordinating the replacement of utilities with the utility company if they interfere with the proposed culverts. All costs for the utility to replace their services will be outside of this report and shall be borne by the utility as per Section 26 of the Drainage Act. All additional costs to work around and organize replacement of the utilities not included in the estimate shall be tracked separately and the cost plus a portion of the engineering (25% of the cost) shall be borne by that utility.

13. Brushing and Tree Removal

All brush, trees, woody vegetation, stumps etc. shall be removed in order to facilitate construction, as determined by the Drainage Superintendent or Engineer, and disposed offsite by the Contractor in accordance with OPSS 201.

A mechanical grinder attached to an excavator shall be used for the removal of brush and trees. Any brush and trees too large to grind shall be close cut.

Certain trees may be left in place at the direction of the Drainage Superintendent or Engineer.

14. De-Watering

De-watering shall be done in order to facilitate construction. The exact methodology for de-watering is up to the Contractor.

The water control plan shall be submitted to the Engineer and Town of Amherstburg prior to work commencing.

The Contractor shall exclude, capture, relocate and monitor for fish trapped within isolated, enclosed, or dewatered areas as per the DFO requirements outlined in Appendix B.

15. Turbidity Barrier

A turbidity barrier shall be installed in the Detroit River at the outlet of the proposed and any future works that will be directly in the river. 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 bases to ensure it is functioning properly.

The Contractor shall exclude, capture, relocate and monitor for fish trapped within isolated, enclosed, or dewatered areas as per the DFO requirements outlined in Appendix B.

16. Removals

The required culverts, backfill and rip rap, etc. shall be removed in their entirety and disposed offsite by the Contractor. Suitable backfill and rip rap, as determined by the Drainage Superintendent or Engineer, shall be stockpiled adjacent to the site for reuse during installation of the proposed pipes. Any material not suitable for use shall be disposed offsite by the Contractor or kept on the property with L.I.N. 9. The fences at Station 0+206 and 0+738 and deck at the outlet to the river that must be removed to allow

construction or maintenance shall be reinstalled by the Contractor using the existing materials. The existing fence along the north limit of L.I.N. 3 and 4 shall be removed and disposed offsite by the Contractor.

17. Connection to Steel Retaining Wall

Where the proposed pipe extends into the river a new hole in the retaining wall shall be created for the pipe. The pipe shall be connected to the retaining wall via a steel sleeve welded to the retaining wall or an approved equivalent. The Contractor shall ensure the connections are water tight. Approved equivalents shall be to the satisfaction of the Drainage Superintendent or Engineer.

18. Excavation of Open Channel and Material Placement

The open channel shall be excavated and maintained to the depths and grades as per the profile and drawings as contained in this Engineers Report. The channel shall be excavated to the proper depth using a laser or similar approved device with a labourer onsite to ensure correctness of grade and to confirm location of tile ends.

All excavated material from the property with L.I.N. 9 shall remain on the property. The excavated material from the channel move off shall be used to fill in the channel on the property with L.I.N. 9 **ONLY** or trucked and deposited at the yellow highlighted location below.

The existing channel on the property with L.I.N 9 and adjacent Station 0+207, 0+484 and at the culvert adjacent Station 0+616 shall be filled in with excavated material from the forcemain and storm sewer installation first and then from the channel move off if

required. Prior to the placement of fill the topsoil/gravel shall be stripped. Once backfilled, the topsoil/gravel shall be placed on top. The excavated material shall be placed in a maximum of 300mm lifts and shall be compacted to 95% SPD. The existing channel shall remain functional until the new channel has been constructed to allow time for the riparian vegetative cover on the newly constructed channel to establish and stabilize before permanent flows are directed to the new channel.

The owner of the properties with L.I.N. 3 and 4 will fill in the existing channel privately. For future maintenance and repair all excavated material shall be levelled on the side the excavation is taking place unless requested to be trucked by the Landowner. The additional cost of trucking shall be assessed to the requesting property. Excavated material shall not be placed in low runs or swales out letting surface water to the channel. The excavated material shall be levelled to a maximum depth of 150mm. This shall include the removal of any rocks larger then 10cm in diameter and any debris/wood. Leveling shall occur when the material is dry enough to do so as determined by the Drainage Superintendent or Engineer. All high spots above grade shall be removed. The sediment shall be removed leaving a rounded bottom with the intent not to undercut the existing side slopes. All material unfit for placing on adjacent lands shall be disposed of offsite by the Contractor.

19. Installation of Culverts and Storm Sewer

The Contractor shall supply, install and backfill CSA approved high density polyethylene (HDPE) smooth wall pipe (320 kPa) with bell and spigot joints, 100-D Reinforced Concrete Pipe with rubber gasket joints or aluminized Corrugated Steel Pipe (CSP) for the road crossing between Station 0+028 and 0+065.

The Contractor shall supply, install and backfill 140-D Reinforced Concrete Pipe with rubber gasket joints for the pipes between Stations 0+000 and 0+016, 1+000 and 1+063 and 2+000 and 2+017.

The Contractor shall supply, install and backfill 65-D Reinforced Concrete Pipe with rubber gasket joints for the pipes between Stations 3+000 and 3+014.

The culvert adjacent Station 0+616 shall be CSA approved HDPE smooth wall pipe (320 kPa).

The culvert at Station 0+196 shall be a 2010x1530mm dia. aluminized Corrugated Steel Pipe Arch (CSPA).

All corrugated steel pipes shall have a minimum wall thickness of 3.5mm. All corrugation profiles shall be of helical lock seam manufacture using 68 x 13mm corrugations for 1600mm dia. pipe and smaller and 125 x 25mm corrugations for 1800mm dia. pipe and larger. Pipe with 125 x 25mm corrugations shall be used if 68 x 13mm corrugations are not available.

The culverts designated to be replaced in the future under this report shall be examined after any cleanout of the open channel as to its condition. If it is found to be in disrepair (i.e. there are holes corroded in the bottom or sides) it shall be replaced as per these specifications.

All excess material apart of the pipe installation shall be disposed offsite at the expense of the Contractor, with the exception of the material on the property with L.I.N 9, which shall remain on the property. The excess material from the forcemain and storm sewer installation shall generally be used to fill in the existing portions of the channel on L.I.N. 9. Excess material shall be trucked to the designated location on the property.

The culverts shall be installed generally in the same location or as approved by the Drainage Superintendent or Engineer. The culverts shall be installed with the invert 10% (minimum 150mm) below the original channel bottom elevation unless otherwise shown in order to achieve the minimum cover. It is the Contractors responsibility to ensure that the minimum cover is achieved when backfilling the culverts.

All culverts may have concrete block or rip rap end walls.

It is the Contractors responsibility to ensure that adequate cover is obtained prior to crossing the culvert in accordance with the manufacturer's recommendations. This includes the addition of granular in the vicinity of the crossing in order to blend in with the surrounding ground elevations.

Culvert at Station 0+196 (Future) and private culvert adjacent channel at Station 0+616:

The bottom of the excavation shall be excavated to a minimum of 100mm below the proposed invert. The pipe shall be bedded with ¾" clear stone. When the pipe has been installed to the proper grade and depth, the excavation shall be backfilled with ¾" clear stone and wrapped in filter fabric from the bottom of the excavation to the spring line 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 access culverts shall be backfilled from the spring line to within 150mm of finished grade with Granular "B" Type II. The top 150mm shall be backfilled with compacted 100% crushed Granular "A"

material to finished grade. If asphalt is proposed, the asphalt shall be HL4 and shall match the existing thickness. In these cases, the compacted Granular “A” shall occupy 150mm below the proposed asphalt.

If rip rap end walls are used, they shall consist of 150mm x 300mm quarry stone or approved equal. The area to receive the rip rap shall be graded to a depth of 400mm below finished grade. Filter fabric (Mirafi P150 or approved equal) shall then be placed with any joints overlapped a minimum 600mm. The quarry stone shall then be placed with the smaller pieces placed in the gaps and voids to give it a uniform appearance.

If concrete block end walls are used, they 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. 600mm x 600mm x 2400mm concrete blocks will be paid at twice the unit price established per block, all others will be at a unit of 1. 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. 2400mm wide concrete blocks shall be used as the top block on arch and larger round pipes in order to span between the culvert top and the supporting block. 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. Erosion protection shall be placed on the banks next to the end walls. The erosion protection shall consist of 150mm x 300mm quarry stone over filter fabric (Mirafi P150 or approved equal). It shall extend 500mm upstream or downstream and from top of bank to top of bank at each end wall.

The blocks shall be placed over a layer of filter fabric (Mirafi P150 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 end wall a finished appearance.

It is the Contractors responsibility to ensure that adequate cover is obtained prior to crossing the culvert in accordance with the manufacturer’s recommendations. It is the Contractors responsibility to ensure that the minimum cover is achieved when backfilling the culverts. The minimum cover for CSP under Highway Loading shall be 1/6 of the culvert span, and shall be no less than 300mm.

Road Culverts (Future) (Station 0+028 to 0+065) and Sewers (0+000 to 0+016, 1+000 to 1+063, 2+000 to 2+017 and 3+000 to 3+014)

The bottom of the excavation shall be excavated to a minimum of 150mm below the proposed invert. The pipe shall be bedded with ¾" clear stone. When the pipe has been installed to the proper grade and depth, the excavation shall be backfilled with ¾" clear stone and wrapped in filter fabric from the bottom of the excavation to the spring line 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 pipes shall be backfilled from the spring line to finished grade with compacted 100% crushed Granular "A" material. If asphalt is proposed, the asphalt shall be HL4 and HL3 and shall match the existing thickness. In these cases, the compacted Granular "A" shall occupy the space below the asphalt.

An end cap shall be placed at the top end of the storm sewer at Station 3+014.

The sewers downstream of the rip rap channel west of Sandwich Street shall be installed with a geogrid.

The geogrid shall be placed 100mm above the top of the pipe and shall extend 2m past the extents of the pipe for the length of the pipe under the accesses.

The geogrid shall be Biaxial Geogrid Class II= TBX3000 or approved equivalent.

The unit price for the storm sewer at the rock channel shall include the removal and re-installation of the existing rip rap.

20. Manhole / Catch Basins

The lump sum price shall include excavation, supply and installation of precast concrete storm manholes per OPSD-701 series complete with precast adjustment units, "Kor-n-Seal" boots or approved equivalent and frame and grates per OPSD-401.01 Type A. Benching and channeling shall be per OPSD-701.021.

Backfill shall be clean, select, native material compacted to 98% Standard Proctor Maximum Dry Density (SPMDD) with the upper one meter compacted to 98% SPMDD.

The catch basins shall be as per above with frame and grate as per OPSD-400.02.

21. Forcemain

The forcemain shall be 200mm dia. DR18 PVC pipe in accordance with OPSS.MUNI 412 or approved equivalent. Joints shall be bell and spigot with rubber gaskets.

The unit price for this item shall include supplying, laying, pipe fitting, bedding per OPSD-802.010 with OPS granular “B” Type I bedding and cover material with 100% passing the 26.5mm sieve, excavation and trench backfill consisting of clean, select, native material compacted to 98% SPMDD.

A pressure and leakage shall be performed in accordance with OPSS.MUNI 412 and the Town of Amherstburg’s standards.

The top end of the forcemain shall have an end cap installed.

22. Rodent Grate

A manufactured rotating rodent grate shall be installed at the outlet of the 200mm dia. PVC Forcemain at Station 0+616 and the storm sewer at Station 3+000.

23. Subsurface Drainage

All existing subsurface drains encountered during construction or identified to be replaced shall be reconnected to the proposed culvert or open channel unless otherwise noted on the drawings or as directed by the Drainage Superintendent or Engineer.

For 100mm and 150mm subsurface drains, the upstream end of the subsurface drain shall be connected to the tile drain at a 45 degree angle. A suitable length of equivalent sized PE agricultural tubing shall be used to connect the drains. Manufactured fittings shall connect the PE tile to the existing drain and to the concrete tile. The connections shall be carefully backfilled to ensure there is adequate support under the pipe and large clumps of clay do not displace the tile. It is recommended that clear stone be used under the connections at the tile drain.

Where a tile is required to cross the open channel the tile shall be bedded with clear stone to the spring line.

24. Rip Rap

Rip rap shall be made up of 150mm to 300mm quarry stone or approved equal. The area to receive the rip rap shall first be graded to allow the placement of the rip rap to a depth

of 400mm below finished grade. After grading, a layer of filter fabric (Mirafi P150 or approved equal) is to be placed with any joints overlapped a minimum of 600mm. Rip rap shall then be placed with the smaller pieces placed in the gaps and voids to give it a uniform appearance.

Rip Rap shall be placed at all tile outlets, bends in the channel, the old channel entrance and exit to the proposed channel and as directed by the Engineer or Drainage Superintendent.

The existing rip rap channel between Station 0+016 and 0+028 shall be repaired and additional rip rap placed at the direction of the Drainage Superintendent or Engineer.

25. Dig Up and Repair Pipe at Lower End

Two joints shall be dug up and repaired with filter fabric and concrete to seal the joints at the discretion of the Drainage Superintendent or Engineer. The first is located 4.6 downstream of Station 1+063 on the east side of the pipe as shown below.

The second location is 9.3 downstream of Station 0+016 on the south side of the pipe as shown below.

The holes as par of this work shall be backfilled with the existing material.

26. Seeding/Restoration

All areas disturbed by construction, including the side slopes of the channel, road right of way, buffer strip, and finished lawns shall be topped with 100mm of topsoil and hydroseeded in the spring or fall following construction. The time of application shall be approved by the Drainage Superintendent or Engineer.

The hydroseed on the drain banks shall be Bonded Fiber Matrix Hydroseed with a mixture approved by the Engineer.

27. Environmental Considerations

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

1. Operate machinery in a manner that minimizes disturbance to the banks of the watercourse.

2. Erosion and sediment control measures must be installed prior to construction to prevent sediment from entering the water body.

3. All granular and erosion control materials shall be stockpiled a minimum of 3.0m from the top of the bank or excavation. Material shall not be placed in surface water runs or open inlets that enter the channel.

4. 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.

5. When possible, all construction within the open channel shall be carried out during periods of low flow or in dry conditions.

6. The Contractor shall conduct regular inspections and maintain erosion and sediment control measures and structures during the course of construction. The Contractor shall repair erosion and sediment control measures and structures if damage occurs.

7. The Contractor shall remove non-biodegradable erosion and sediment control materials once site is stabilized.

8. Remove all construction materials from site upon project completion.

9. Operate machinery in a manner that minimizes disturbance to the banks of the watercourse.

10. Erosion and sediment control measures must be installed prior to construction to prevent sediment from entering the water body.

11. A temporary dam consisting of excavated material may be constructed upstream and downstream of the work area. 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 turbidity curtain. 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 turbidity curtain. If a different method of water control is proposed by the Contractor it shall be submitted to the Engineer prior to the commencement of construction.

12. 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)

13. 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.

14. To avoid and mitigate the potential for prohibited effects to fish and fish habitat the measures in the DFO's Letter of Advice in Appendix B shall be adhered to.

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

The light duty silt fencing shall be supplied and installed in accordance with OPSS 805 and OPSD 219.110. The light duty silt fencing shall be removed once the disturbed area has been re-vegetated.

28. Maintenance Period

The Contractor shall be responsible for maintenance of the drain for a period of one year after their installation. This will include repairing any settlement areas on the travel surface with topsoil and/or HL3 asphalt.

APPENDIX A

Best Management Practices for Culvert Replacement

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@dfo-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 which can be found at: http://www.dfo-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 m^2 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-ppe/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

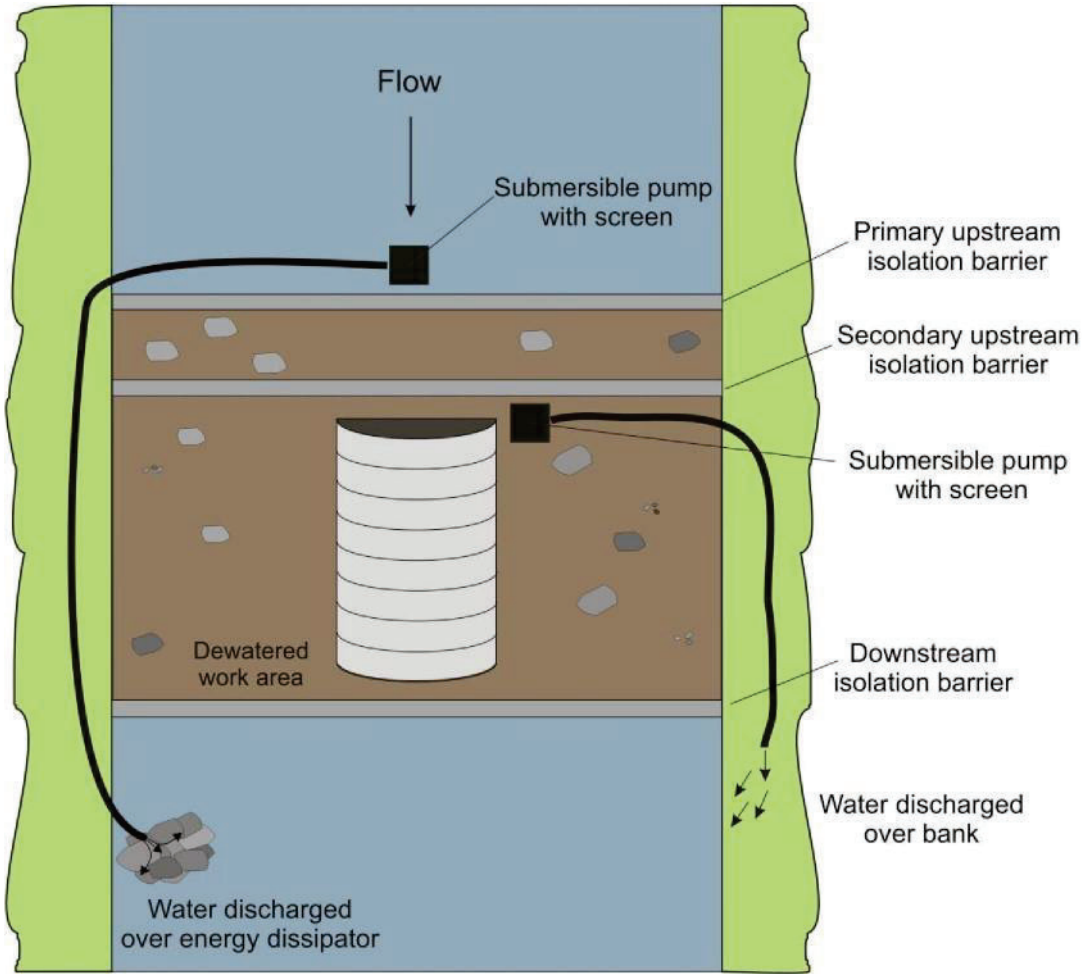


Figure 3. Isolation and Bypass Diversion when Working In-Water

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.

APPENDIX B

DFO Correspondence

Fisheries and Oceans Canada
Ontario and Prairie Region
Fish and Fish Habitat Protection Program
867 Lakeshore Rd.
Burlington, ON
L7S 1A1

Pêches et Océans Canada
Région de l'Ontario et des Prairies
Programme de protection du poisson et de son habitat
867 chemin Lakeshore
Burlington, ON
L7S 1A1

Dear Josh Warner & Sam Paglia:

Subject: Outfalls, General Drain, Town of Amherstburg (24-HCAA-00036) – Implementation of Measures to Avoid and Mitigate the Potential for Prohibited Effects to Fish and Fish Habitat

The Fish and Fish Habitat Protection Program (the Program) of Fisheries and Oceans Canada (DFO) received your proposal on January 4, 2024. We understand that you propose to:

- Install a new outfall on the bank of Detroit River (~2m^2 footprint below the high-water mark)
- Exclude fish from the work area using a turbidity curtain and drag curtain outward from shore; and,
- Work in isolation of flow or open water to avoid sedimentation of the watercourse.

We understand the following aquatic species listed under the Species at Risk Act may use the area in the vicinity of where your proposal is to be located:

- Channel Darter listed as Endangered
- Spotted Sucker listed as Special Concern

Our review considered the following information:

- Request for Review form and associated documents.

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*;
- 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*.

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:

- 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);
- Capture, relocate and monitor for fish trapped within isolated, enclosed, or dewatered areas;
    - Dewater gradually to reduce the potential for stranding fish;
- Screen intake pipes to prevent entrainment or impingement of fish;

        - Use the code of practice for water intake screens;
- Limit impacts on riparian vegetation to those approved for the work, undertaking or activity;
    - Limit access to banks or areas adjacent to waterbodies;
    - Construct access points and approaches perpendicular to the watercourse or waterbody;
    - Re-vegetate the disturbed area with native species suitable for the site;
- Restore stream geomorphology (i.e., restore the bed and banks, gradient and contour of the waterbody) to its initial state;
- Develop and implement an erosion and sediment control plan to avoid the introduction of sediment into any 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;
        - Use the code of practice for temporary cofferdams and diversion channels;
    - Schedule work to avoid wet, windy and rainy periods (and heed weather advisories) that may result in high flow volumes and/ or increase erosion and sedimentation;
    - Monitor the watercourse to observe signs of sedimentation during all phases of the work, undertaking or activity and take corrective action;
    - Operate machinery on land in stable dry areas; and,
- Develop and implement a response plan to avoid a spill of deleterious substances

Provided that you incorporate these measures into your plans, the Program is of the view that your proposal is not likely to result in the contravention of the above mentioned prohibitions and requirements.

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* and the *Species at Risk Act*.

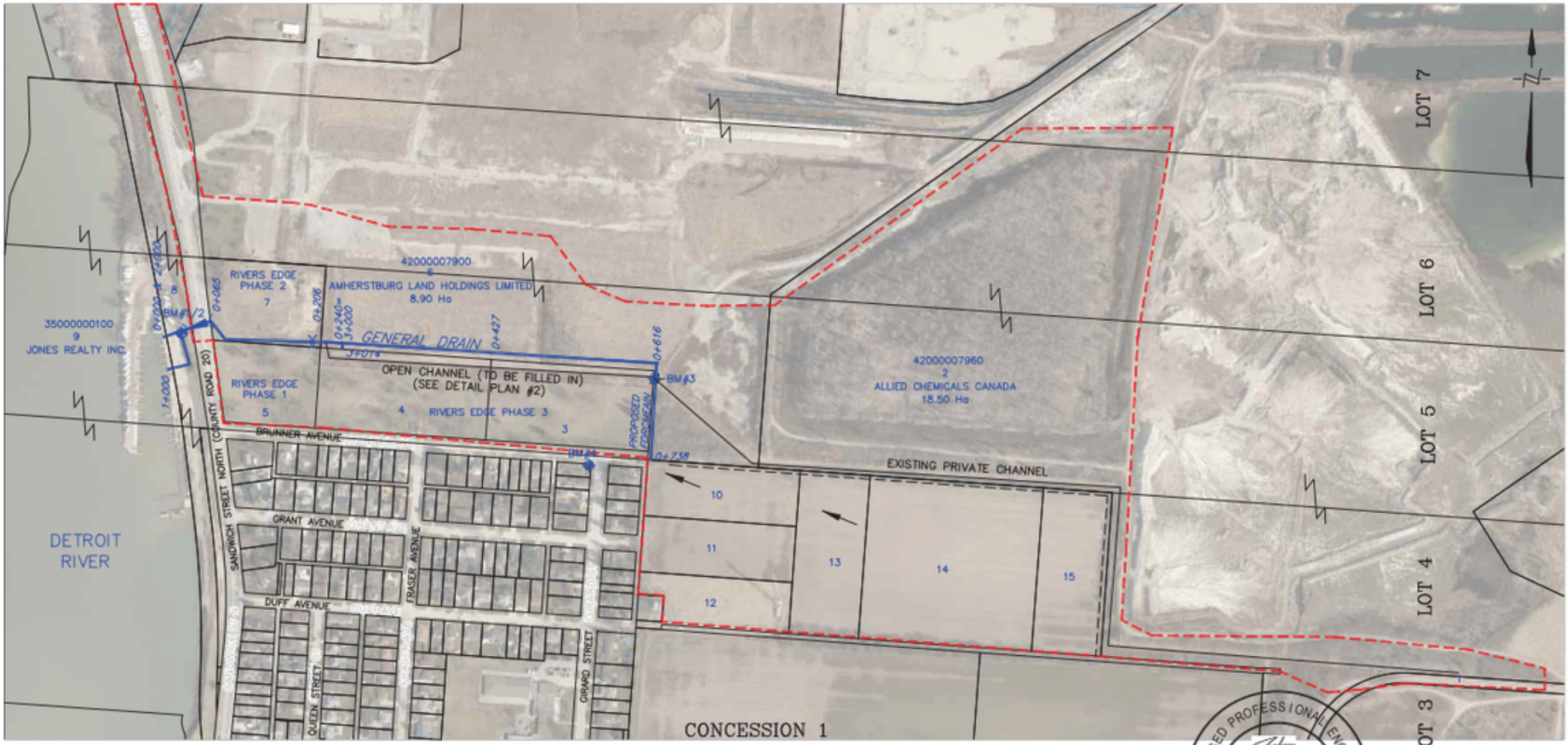
It is also your *Duty to Notify* DFO if you have caused, or are about to cause, the death of fish by means other than fishing and/or the harmful alteration, disruption or destruction of fish habitat. Such notifications should be directed to FisheriesProtection@dfo-mpo.gc.ca or 1-855-852-8320.

We recommend that you notify this office at least 10 days before starting your project and that a copy of this letter 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 Samantha Terry by email at Samantha.Terry@dfo-mpo.gc.ca. Please refer to the file number referenced above when corresponding with the Program.

Yours sincerely,

Samantha Terry
Student Biologist, Triage and Planning
Fish and Fish Habitat Protection Program



INDEX NUMBER

500000318000 1. ESSEX TERMINAL RAILWAY COMPANY 0.20 Ha	35000000650 10. 1924976 ONTARIO INC. 1.22 Ha
42000007920 3. 1000083282 ONTARIO INC. 1.87 Ha	35000000640 11. 1924976 ONTARIO INC. 1.22 Ha
35000000303 4. 1000083282 ONTARIO INC. 1.97 Ha	35000000620 12. BELL MOBILITY CELLULAR INC. 1.04 Ha
35000000300 5. 1603941 ONTARIO INC. 1.14 Ha	35000000700 13. 1924976 ONTARIO INC. 1.63 Ha
35000000302 7. 1603941 ONTARIO INC. 1.35 Ha	35000000800 14. 1924976 ONTARIO INC. 4.06 Ha
35000000200 8. ESSEX REGION CONSERVATION AUTHORITY	35000000900 15. 1924976 ONTARIO INC. 1.62 Ha

LEGEND

- DRAINAGE AREA
- GENERAL DRAIN
- MUNICIPAL DRAIN
- EXISTING CULVERT

LICENSED PROFESSIONAL ENGINEER
J. H. WARNER
100520016
AUG. 14, 2024
PROVINCE OF ONTARIO

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

DRAWING NAME: General Drain Plan

PROJECT No. 2023-1499

APPROVED	J. WARNER
CHECKED	J. WARNER
DRAWN	C. SAUNDERS

NO.	REVISIONS	DATE	BY
1	FINAL REPORT	AUG. 14, 2024	CS

SCALE 1:5,000
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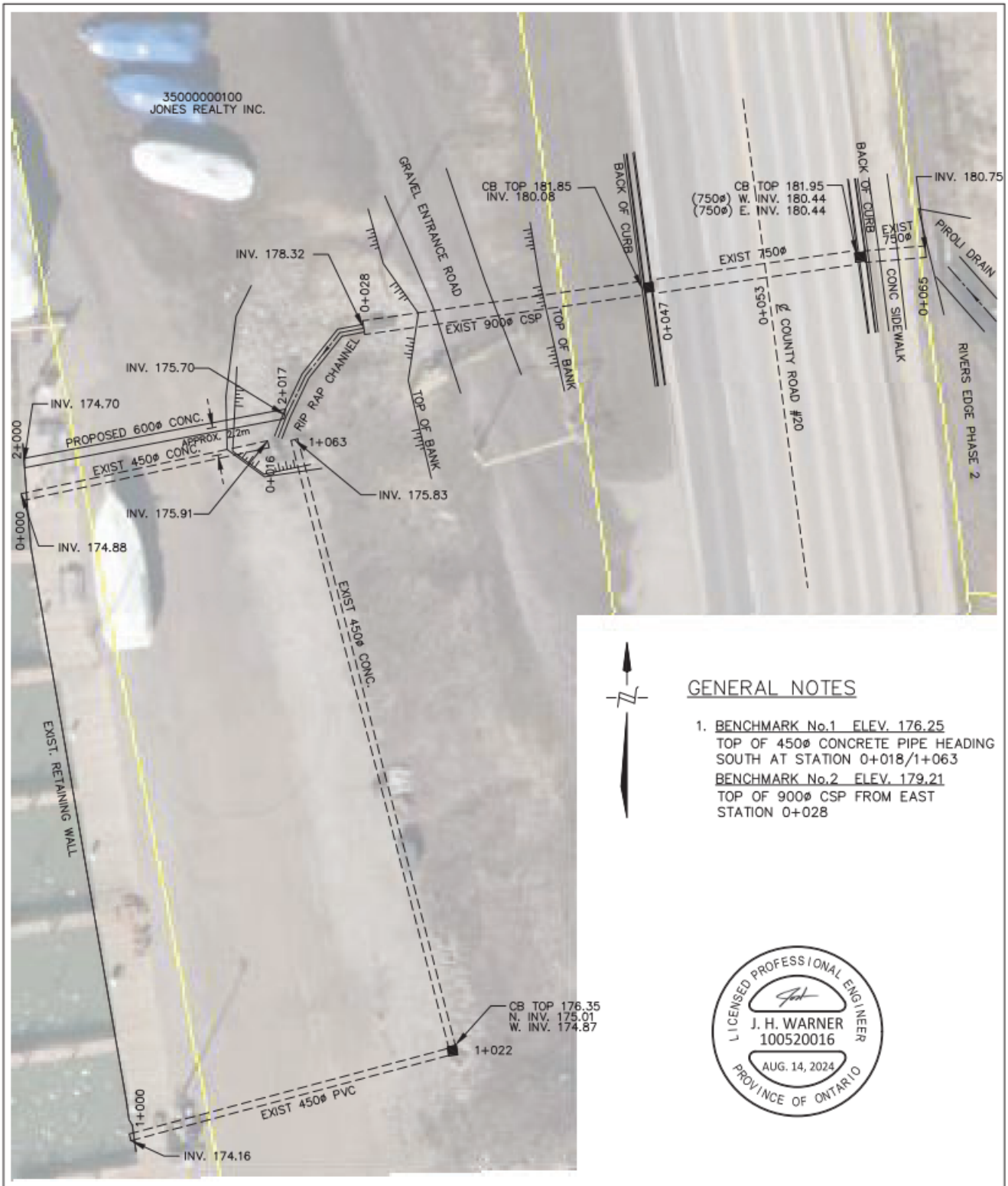
TOWN of AMHERSTBURG
GENERAL DRAIN
PLAN

1 OF 6

Last Updated: August 14, 2024



GENERAL NOTES

1. BENCHMARK No.1 ELEV. 176.25
   TOP OF 450ø CONCRETE PIPE HEADING SOUTH AT STATION 0+018/1+063
   BENCHMARK No.2 ELEV. 179.21
   TOP OF 900ø CSP FROM EAST STATION 0+028

LICENSED PROFESSIONAL ENGINEER
J. H. WARNER
100520016
AUG. 14, 2024
PROVINCE OF ONTARIO

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

DRAWING NAME: General Drain Detail Plan 1

PROJECT No. 2023-1499

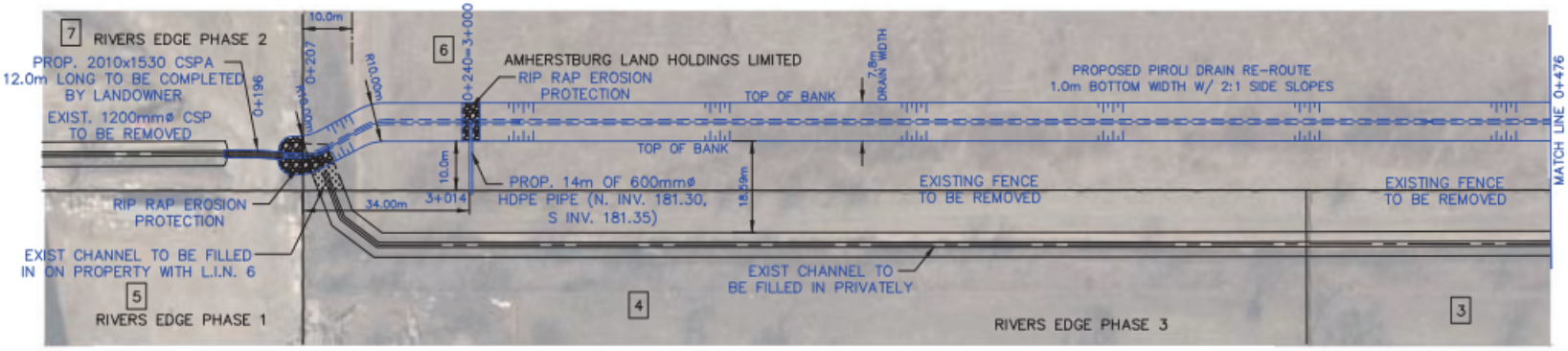
APPROVED	NO.	REVISIONS	DATE	BY
J. WARNER				
CHECKED	1	FINAL REPORT	AUG. 14, 2024	CS
B. VAN RUITENBURG				
DRAWN	SCALE: 1:250			
C. SAUNDERS	0 2 4 6m			

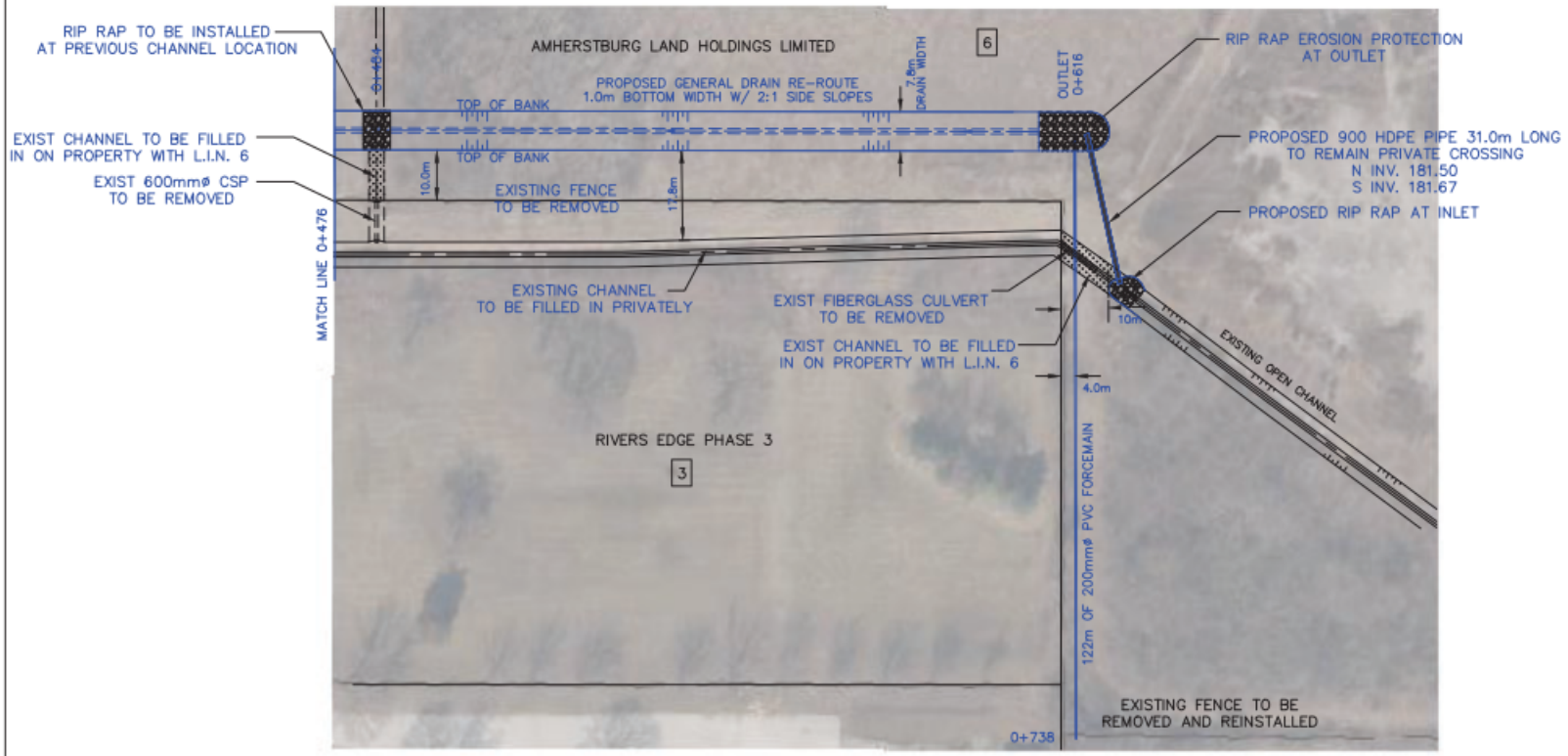
TOWN of AMHERSTBURG

GENERAL DRAIN DETAIL PLAN 1

2 OF 6

Last Updated: May 7, 2024





LICENSED PROFESSIONAL ENGINEER
J. H. WARNER
100520016
AUG. 14, 2024
PROVINCE OF ONTARIO

Dobbin Engineering Inc.

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

DRAWING NAME: General Drain Detail Plan 2

PROJECT No. 2023–1499

APPROVED	NO.	REVISIONS	DATE	BY
J. WARNER				
CHECKED B. VAN RUITENBURG	1	FINAL REPORT	AUG. 14, 2024	CS
DRAWN C. SAUNDERS				

SCALE 1: 1000
0 10 20 30m

TOWN of AMHERSTBURG

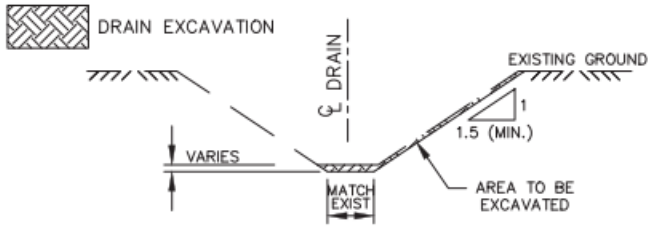
GENERAL DRAIN DETAIL PLAN 2

3 OF 6

Last Updated: May 7, 2024

GENERAL NOTES

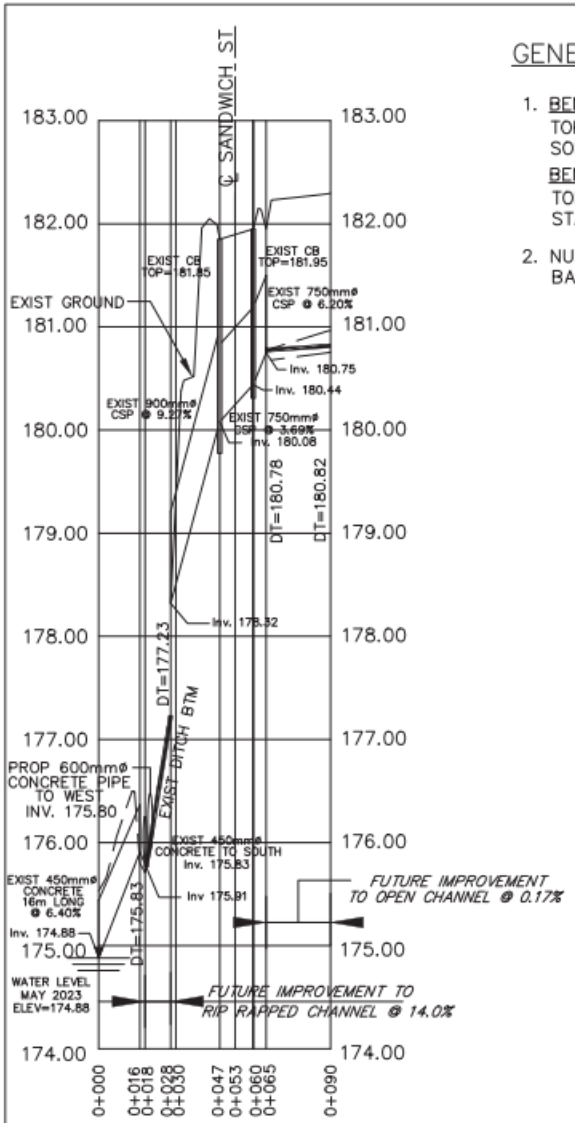
1. BENCHMARK No.1 ELEV. 176.25
   TOP OF 450ø CONCRETE PIPE HEADING SOUTH AT STATION 0+018/1+063
   BENCHMARK No.2 ELEV. 179.21
   TOP OF 900ø CSP FROM EAST STATION 0+028
2. NUMBERS ARE DEPTH FROM TOP OF BANK TO BOTTOM OF NEW CHANNEL.

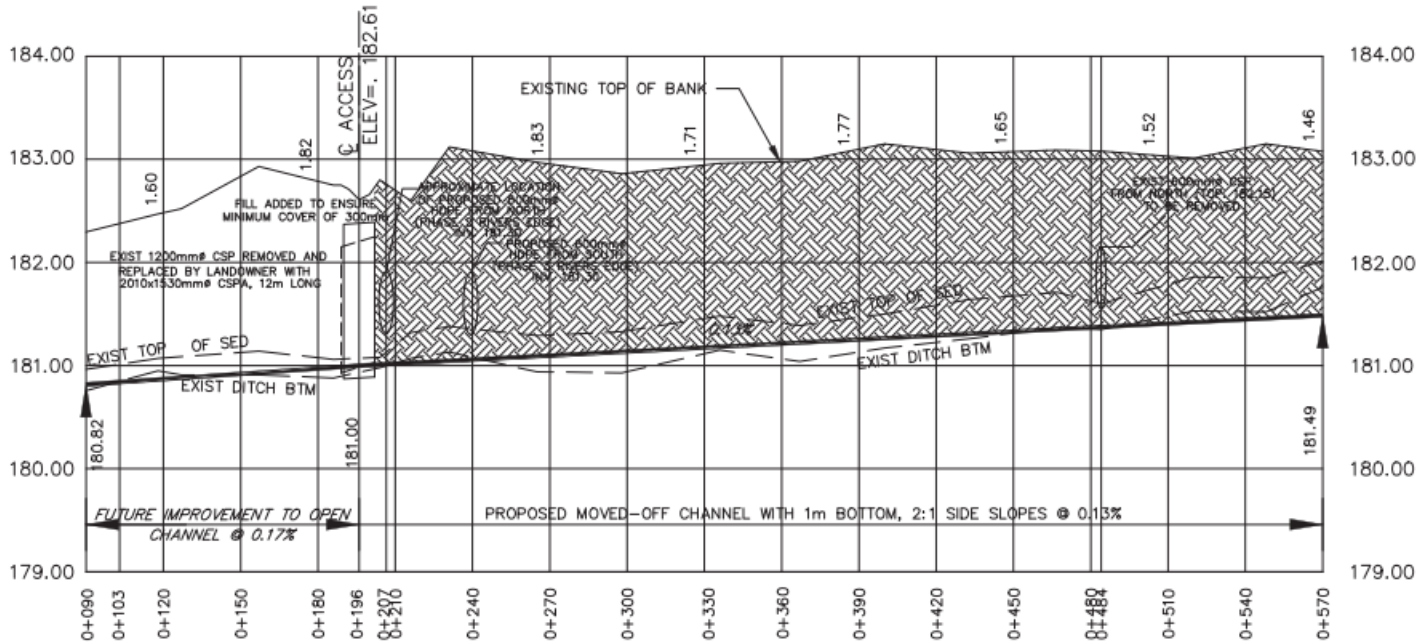


TYPICAL MAIN DRAIN CROSS SECTION FOR MAINTENANCE

NTS

LICENSED PROFESSIONAL ENGINEER
J. H. WARNER
100520016
AUG. 14, 2024
PROVINCE OF ONTARIO





Dobbin Engineering Inc.

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

DRAWING NAME: General Drain Profile 1

PROJECT No. 2023-1499

APPROVED	NO.	REVISIONS	DATE	BY
J. WARNER				
CHECKED	1	FINAL REPORT	AUG. 14, 2024	CS
J. WARNER				
DRAWN	SCALE: 1:2,000			
C. SAUNDERS	0 20 40 60m			

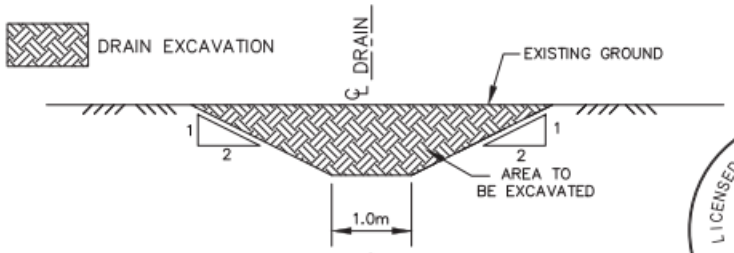
TOWN of AMHERSTBURG

GENERAL DRAIN PROFILE

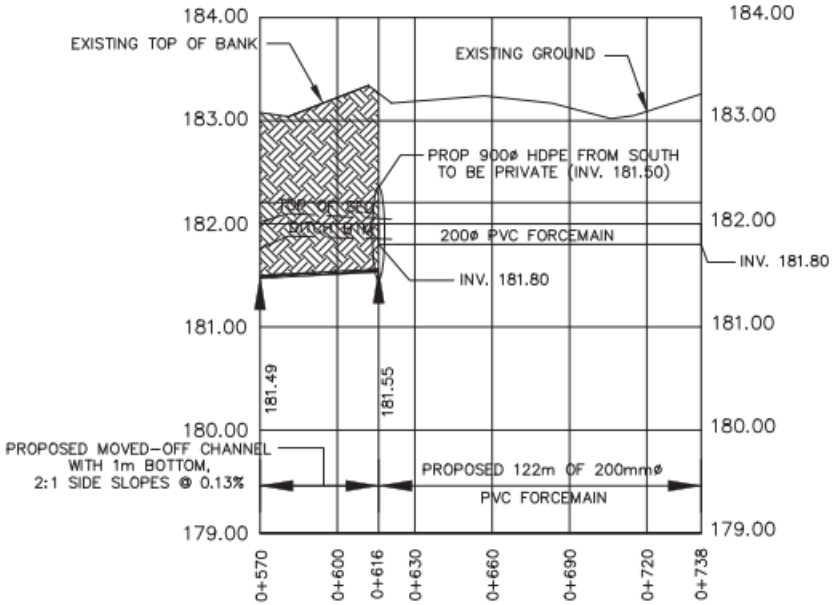
Last Updated: May 7, 2024

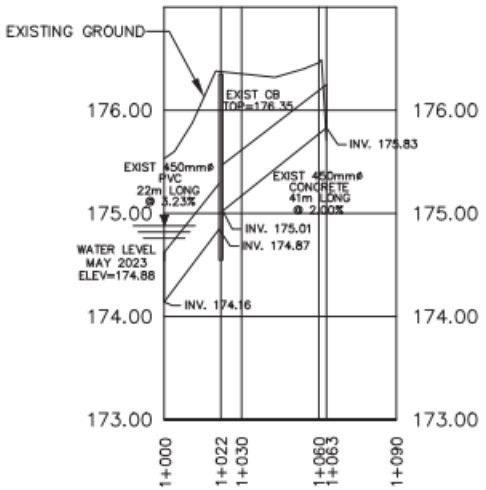
GENERAL NOTES

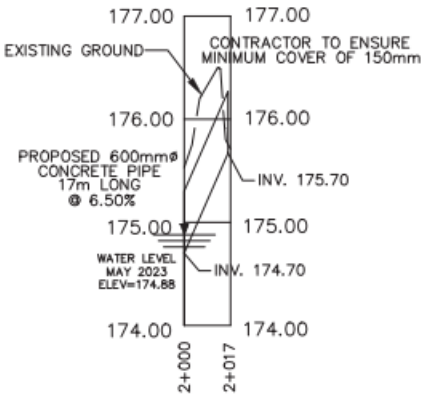
1. BENCHMARK No.3 ELEV. 182.82
   TOP OF 1000ø PIPE JUST EAST OF PROPOSED OUTLET AT STATION 0+621
   BENCHMARK No.4 ELEV. 184.06
   TOP OF FIRE HYDRANT AT SOUTHWEST CORNER OF BRUNNER AVENUE AND GIRARD STREET
2. NUMBERS ARE DEPTH FROM TOP OF BANK TO BOTTOM OF NEW CHANNEL.

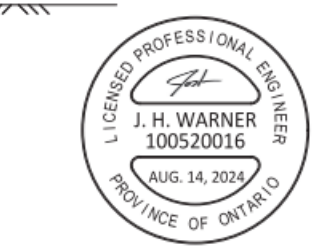


TYPICAL DRAIN CROSS SECTION
STATION 0+196 TO 0+616
NTS









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

DRAWING NAME: General Drain Profile 2
PROJECT No. 2023-1499

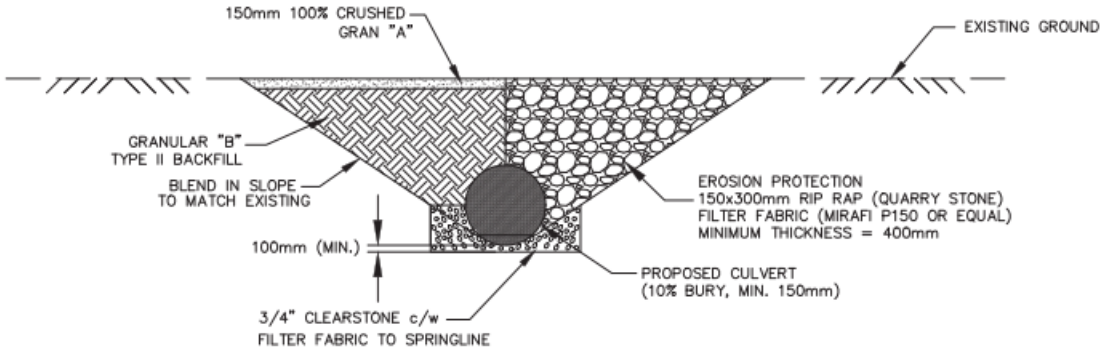
APPROVED	NO.	REVISIONS	DATE	BY
J. WARNER				
CHECKED	1	FINAL REPORT	AUG. 14, 2024	CS
J. WARNER				
DRAWN				
C. SAUNDERS				

SCALE: 1:2,000
0 20 40 60m

TOWN of AMHERSTBURG

GENERAL DRAIN PROFILE

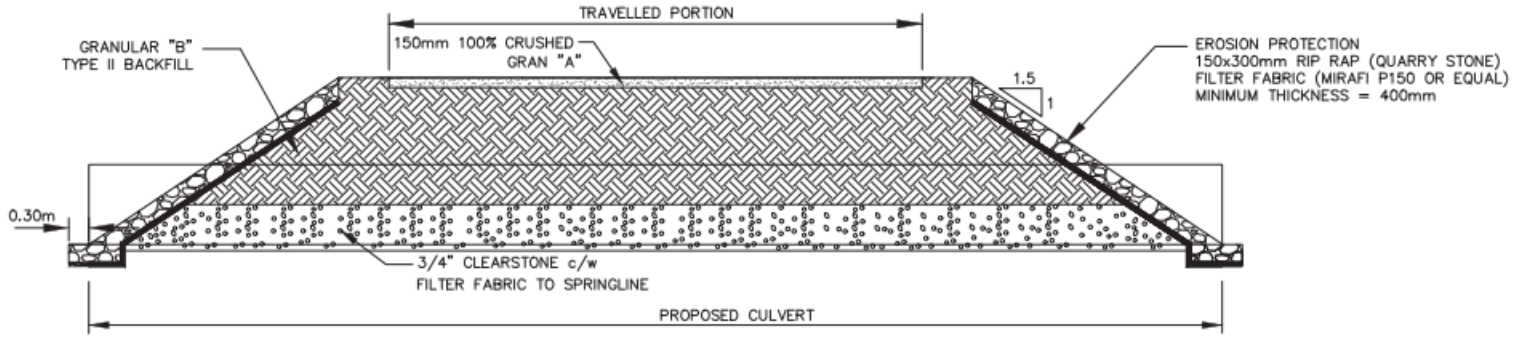
Last Updated: May 7, 2024



LICENSED PROFESSIONAL ENGINEER
J. H. WARNER
100520016
AUG. 14, 2024
PROVINCE OF ONTARIO

TYPICAL CULVERT END SECTION

NTS



TYPICAL CROSS-SECTION

NTS

NOTE:
ALL GRANULARS COMPACTED
TO 98% MODIFIED PROCTOR DENSITY

Dobbin Engineering Inc.

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

DRAWING NAME:
General Drain Culvert Detail

PROJECT No.
2023-1499

APPROVED	J. WARNER
CHECKED	B. VAN RUITENBURG
DRAWN	J. WARNER

NO.	REVISIONS	DATE	BY
1	FINAL REPORT	AUG. 14, 2024	JW

SCALE 1:75
0 2m

TOWN of AMHERSTBURG

GENERAL DRAIN
TYPICAL ACCESS CULVERT DETAIL

6
OF 6

Last Updated: May 7, 2024

THE CORPORATION OF THE TOWN OF AMHERSTBURG

BY-LAW NO. 2024-047

By-law to provide for the construction of the General Drain (2024) based on the report of Josh Warner, P.Eng of R. Dobbin Engineering Inc.

WHEREAS the Council of the Corporation of the town of Amherstburg (hereafter "Town" has be requested to provide for the creation of a new Municipal Drain under Section 4 of the Drainage Act (Act);

AND WHEREAS The Town procured a Drainage Report for the General Drain from R. Dobbin Engineering Inc, dated August 14, 2024 (hereafter "Drainage Report") and can be referenced as Schedule A, as attached hereto;

AND WHEREAS Notice of a Drainage Board Meeting to hear comments from the affected property owners was given on August 20, 2024.

AND WHEREAS a Drainage Board Meeting to hear comments from the affected property owners was given on September 10, 2024

AND WHEREAS the Town is of the opinion that the Drain is desirable and the estimated cost provided for the new drainage works is $504,000 (including non-recoverable HST).

WHEREAS $504,000.00 is the estimated cost provided for the new the drainage works;

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

1. AUTHORIZATION

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

2. BORROWING

The Corporation of the Town of Amherstburg may borrow on the credit of the Corporation the amount of $504,000.00 being the estimated amount necessary for the improvements of the drainage works.

3. DEBENTURE(S)

The Corporation may issue debenture(s) for the amount borrowed less the total amount of:
(a) Grants received under section 85 of the Drainage Act;

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

4. PAYMENT

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

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

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

Read a first and second time and provisionally adopted this 15th day of October, 2024.

_____
MAYOR – MICHAEL PRUE

_____
CLERK – KEVIN FOX

Read a third time and finally passed this ___ day of _____, 2024.

_____
MAYOR – MICHAEL PRUE

_____
CLERK – KEVIN FOX

THE CORPORATION OF THE TOWN OF AMHERSTBURG

OFFICE OF ENGINEERING AND PUBLIC WORKS

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

Author's Name: Sam Paglia	**Report Date: July 15, 2024**
Author's Phone: 519 736-3664 ext. 2318	**Date to Drainage Board: September 10, 2024**
Author's E-mail: spaglia@amherstburg.ca	**Resolution #: N/A**

To: **Members of the Drainage Board**

Subject: **Section 4 Petition Drain – Engineering Appointment**

---

1. RECOMMENDATION:

It is recommended that:

1. The report from the Drainage Superintendent and Engineering Coordinator dated July 15, 2024 regarding the Section 4 Petition Drain – Engineering Appointment **BE RECEIVED**;

2. The Drainage Board recommend that Council **ACCEPT** the request from the landowner(s) for a Petition Drain under Section 4 of the Drainage Act; and,

3. The Drainage Board recommend the appointment of Josh Warner, P.Eng., of R. Dobbin Engineering Inc., under Section 4 of the Drainage Act for the validation, examination and report on the petition for a new Municipal Drain **BE APPROVED** by Council.

2. BACKGROUND:

The Town received an inquiry regarding a drainage dispute that a landowner was having with their neighbour. This drainage issue was an issue that fell into the realm of Common Law. The landowner was explained their rights and responsibilities under both Common Law and Statute Law.

Subsequent to the conversations and information obtained by and provided to the injurious landowner, they elected to enforce their right under common law and chose to not accept stormwater from other lands by building a berm on their parcel.

Although, this common law choice may solve the current drainage issue experienced by the landowner, it has the potential to create a drainage conveyance problem for other landowners.

Subsequent to the aforementioned, upstream lands have petitioned for a legal outlet under Statute Law. One of the affected upstream lands requiring an outlet, filed a petition with the Town on July 7, 2024 and another petition filed by the County of Essex was received on August 16, 2024. The land area petitioning for drainage is agricultural and road surface for a section of County Road 50 and the likelihood of other lands that could be also involved contain more agricultural and residential parcels.

3. DISCUSSION:

Under Common Law, all landowners are considered to be equal, whether they are private citizens, companies, road authorities, municipalities, or Provincial and Federal governments, and any drainage disputes arising from stormwater are resolved through the courts. In other words, stormwater has the right to flow where it wants to flow, but disputes resulting from that flow are resolved by the courts. The Town is typically not involved in common law issues (unless our lands are involved in the dispute).

Under Statute Law, Town Council administers the solution to a drainage problem through the Drainage Act by appointing a drainage practitioner to provide a design for the legal means to allow for the safe and sufficient conveyance of stormwater, and without the litigation required under Common Law. In other words, stormwater is given the legal statute right to flow safely and unobstructedly to a sufficient outlet through a designed system that is paid for by all of the lands that it serves.

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

The engineer, in their examination will define a watershed and provide a drainage system that is designed to accept the stormwater from all lands within the watershed and the project will progress with a watershed approach and will follow the communal procedures under the Act to create a new drain with a certain level of service for all affected landowners in the watershed.

4. RISK ANALYSIS:

There is more risk for the Town if Council does not accept a petition for drainage works than there is in accepting one. Not only does Council have the responsibility to repair and maintain drainage works under the Act, there is an obligation for Council to provide finance with the funds necessary for all works related to drainage under the Act and all funds are recoverable by the users of the drain. The Engineer appointed by Council has the requirement to determine how any costs incurred and associated with the petition are to be collected by the Town whether the petition is valid or if it fails. If Council chooses not to accept the petition, the petitioners may file an appeal to the Tribunal.

In both petitions received, the Act deems the petitions valid under Section 4(1)(c)(d) for agricultural lands requiring drainage and a road requiring drainage respectively. Therefore, the examining engineer will examine and report on the entire drainage scheme and submit a drainage report that provides not only the most economical and efficient solution to a Common Law matter, but also provides the mechanism for the Town to recover all costs fairly, and by By-Law for the drains construction as well as the future repair and maintenance on the drain from all of the lands that use the drain.

5. FINANCIAL MATTERS:

The financial implications will be determined by the appointed engineer and will be provided in the schedule of assessment within the engineer's drainage report for the improvements of the area which include the new Municipal Drain. All lands are involved in the process and upstream lands are assessed for anything deemed necessary to carry stormwater safely to a sufficient outlet from their lands. All affected landowners have the opportunity to appeal the recommended works or assessment through the process under the Act.

The Town may also be assessed for its land(s) or road(s) within the watershed that contribute stormwater. The Town is also tasked with funding the project in its entirety, and until costs can be recovered through the assessment schedule adopted under the drains' By-Law. Once the recommended solution under bylaw is constructed, the Town recovers 100% of the cost of the project from all landowners affected, and if the Town is assessed, the assessment for their share of drainage is taken from the drain reserve fund.

6. CONSULTATIONS:

ERCA has been notified of the Petitions received, and has the opportunity to call for an environmental assessment on the proposed area. If they wish to, they must pay for that assessment under Section 6(1) regarding environmental appraisals. An ERCA permit will be required under Section 28 of the Conservation Authorities Act for this project.

7. CONCLUSION:

Administration is recommending that the petitions be accepted in order to provide drainage by way of a legal outlet under the Act to lands and roads currently without a Statute outlet. Administration is recommending the appointment of R. Dobbin Engineering Inc. for this Petition Drain this be brought to the next available council meeting for Council's consideration pursuant to the provisions of the Drainage Act.

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

Attachment(s): Requests for Improvement received.

Ontario Ministry of Agriculture, Food and Rural Affairs

Petition for Drainage Works by Owners
Form 1

Drainage Act, R.S.O. 1990, c. D.17, clause 4(1)(a) or (b)

This form is to be used to petition municipal council for a new drainage works under the *Drainage Act.* It is not to be used to request the improvement or modification of an existing drainage works under the *Drainage Act.*

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

The area of land described below requires drainage (provide a description of the properties or the portions of properties that require drainage improvements) [redacted]

Total Area of Farm is 101.72 ac.
Est. 40 ac. drain to this outlet

In accordance with section 9(2) of the *Drainage Act*, the description of the area requiring drainage will be confirmed or modified by an engineer at the on-site meeting.

As owners of land within the above described area requiring drainage, we hereby petition council under subsection 4(1) of the *Drainage Act* for a drainage works. In accordance with sections 10(4), 43 and 59(1) of the *Drainage Act,* if names are withdrawn from the petition to the point that it is no longer a valid petition, we acknowledge responsibility for costs.

Purpose of the Petition (To be completed by one of the petitioners. Please type/print)

Contact Person (Last Name)	(First Name)	Telephone Number
Laramie	Brad 519	[redacted] ext.

Address

Road/Street Number	Road/Street Name
	County Rd 50

Location of Project

Lot	Concession	Municipality	Former Municipality (if applicable)
63.	6 South	Amherstburg	Malden.

What work do you require? (Check all appropriate boxes)

- ☐ Construction of new open channel
- ☐ Construction of new tile drain
- ☐ Deepening or widening of existing watercourse (not currently a municipal drain)
- ☐ Enclosure of existing watercourse (not currently a municipal drain)
- ☐ Other (provide description ▼)

Name of watercourse (if known)

Estimated length of project

General description of soils in the area

What is the purpose of the proposed work? (Check appropriate box)

☐ Tile drainage only ☐ Surface water drainage only ☑ Both

Petition filed this 15th day of JULY, 2024

Name of Clerk (Last, first name) PAGLIA, SAM

Signature

Property Owners Signing The Petition | Page of

- Your municipal property tax bill will provide the property description and parcel roll number.
- In rural areas, the property description should be in the form of (part) lot and concession and civic address.
- In urban areas, the property description should be in the form of street address and lot and plan number if available.
- If you have more than two properties, please take copy(ies) of this page and continue to list them all.

Number	Property Description
	Farm 101.72 ac.

Ward or Geographic Township	Parcel Roll Number
	[redacted]

I hereby petition for drainage for the land described and acknowledge my financial obligations.

Ownership

☐ Sole Ownership

Owner Name (Last, First Name) (Type/Print)	Signature	Date (yyyy/mm/dd)

☐ Partnership (Each partner in the ownership of the property must sign the petition form)

Owner Name (Last, First Name) (Type/Print)	Signature	Date (yyyy/mm/dd)

☒ Corporation (The individual with authority to bind the corporation must sign the petition)

Name of Signing Officer (Last, First Name) (Type/Print)	Signature
Laramie Brad.	
Name of Corporation	
Laramie Farms of McGregor Inc.	☒ I have the authority to bind the Corporation.
Position Title	**Date (yyyy/mm/dd)**
President	2024/07/11

Number	Property Description

Ward or Geographic Township	Parcel Roll Number

I hereby petition for drainage for the land described and acknowledge my financial obligations.

Ownership

☐ Sole Ownership

Owner Name (Last, First Name) (Type/Print)	Signature	Date (yyyy/mm/dd)

☐ Partnership (Each partner in the ownership of the property must sign the petition form)

Owner Name (Last, First Name) (Type/Print)	Signature	Date (yyyy/mm/dd)

☐ Corporation (The individual with authority to bind the corporation must sign the petition)

Name of Signing Officer (Last, First Name) (Type/Print)	Signature
Name of Corporation	
	☐ I have the authority to bind the Corporation.
Position Title	**Date (yyyy/mm/dd)**

☐ Check here if additional sheets are attached | Clerk initial

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

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

Notice of Collection of Personal Information

Any personal information collected on this form is collected under the authority of the *Drainage Act,* R.S.O. 1990, c. D.17 and will be used for the purposes of administering the Act. Questions concerning the collection of personal information should be directed to:
where the form is addressed to a municipality *(municipality to complete)*

and where the form is addressed to a territory without municipal organization, the Drainage Coordinator, Ministry of Agriculture, Food and Rural Affairs, 1 Stone Rd W, Guelph ON N1G 4Y2, 519 826-3552.

Ontario

Ministry of Agriculture, Food and Rural Affairs

Petition for Drainage Works by Road Authority – Form 2

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

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

Re: Road name and road location (provide description of road or section of road that requires drainage)
County road 50 at Collison Road. County road 50 roadside ditch from Lake Erie County Club Drive westerly to the Beaudoin Drain.

I, Botham, Allan, as an individual having jurisdiction over
(Last, first name)

the above road system for the County **of** Essex

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

Organization
Corporation of the County of Essex

Position Title	Signature	Date (yyyy/mm/dd)
Director, Infrastructure & Planning Services		2024/08/01

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

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

  Disponible en français

1: 2,364

This map was automatically generated using Geocortex Essentials. County of Essex. 2019.

8/1/2024

THE CORPORATION OF THE TOWN OF AMHERSTBURG

OFFICE OF ENGINEERING AND PUBLIC WORKS

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

Author's Name: Sam Paglia	**Report Date: August 14, 2024**
Author's Phone: 519 736-3664 ext. 2318	**Date to Drainage Board: September 10, 2024**
Author's E-mail: spaglia@amherstburg.ca	**Resolution #: N/A**

To: **Members of the Drainage Board**

Subject: **Albert McGee Drain (Upper) – Engineering Appointment**

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1. RECOMMENDATION:

It is recommended that:

1. The report from the Drainage Superintendent and Engineering Coordinator dated August 14, 2024 regarding the Albert Mcgee Drain (Upper) – Engineering Appointment **BE RECEIVED**;

2. The Drainage Board recommend that Council **ACCEPT** the request from the landowner(s) for improvements to the Albert McGee Upper Drain drainage system as per Section 78 of the Drainage Act; and,

3. The Drainage Board recommend the appointment of Oliver Moir of Dillon Consulting Limited to examine and report on the repair and improvement to the Albert Mcgee Drain (Upper) drainage system **BE APPROVED** by Council.

2. BACKGROUND:

The Town received a request for improvement on July 17, 2024 to construct an access bridge over the Albert McGee drain.

The Superintendent, in discussions with the requesting landowner, was informed that the owner currently does not have access to the portion of farm lands adjacent to Concession 6 road parallel to the Albert McGee Drain. The portion of farm was once accessible over the access culvert on South Sideroad on the north property line.

The owner in collaboration with the Conservation Authority planted trees on the south eastern portion of the farm which inadvertently cut off access to the southwestern portion of farm. As a result of lack of maintenance and farming activity, the owner received a notice from the Town of Amherstburg By-Law Enforcement with respect to property standards and requires access to those lands in order to maintain, and potentially farm that portion of land.

3. DISCUSSION:

The current bylaw must be updated to provide a cost mechanism to install the access culvert and the updated report must provide a cost mechanism for the Town to recover future maintenance and repairs on the drain.

Dillon Consulting is currently appointed to study the area for improvements at the downstream reaches of the Albert Mcgee (Upper) and Langlois Drains, and is recommended for this appointment as a matter of efficiency.

The Engineer during their examination may also include culvert replacements required or any other improvements necessary to bring the drain and bylaw to their current reflection of the watershed needs and for the benefit of all of the users of the system including the Town for its roads.

4. RISK ANALYSIS:

It is the responsibility of the entire watershed along with Council, to keep Municipal Drainage systems in a good state of repair. It is Council's task to carry out repair, maintenance and improvements to municipal drains through the Drainage Act, which includes maintaining the engineers reports that are appended to each By-law for the respective municipal drains so as to accurately reflect a fair mechanism for cost recovery.

Several of the existing culverts on the drain were installed under separate reports spanning 31 years. The lower reaches of the drain were completed under report in 1991, and several more culverts were installed over a 13 year span before 1991, and dating back to 1978. The upper portion of the drain was completed in 1957 and it is likely that future maintenance provisions and other culvert replacements may occur. From a pro-active approach, and to allocate the necessary funds more effectively and efficiently for the benefit of the owners in the watershed, the examining engineer should report on the entire drainage scheme to satisfy the requests and to update and provide a mechanism for the Town to recover costs fairly for any recommended improvements as well as future maintenance on the drain.

5. FINANCIAL MATTERS:

The financial implications will be determined by the appointed engineer and will be provided in the schedule of assessment within the engineer's drainage report for the improvements to the Albert McGee (Upper) Drain. In this case, the requesting landowner would likely be responsible for the cost of the culvert and the incidentals associated with the design of the culvert. Upstream lands are involved in the process as well, and are able to request work upstream, and may be assessed for anything

deemed necessary and downstream of their lands so as to carry stormwater safely to a sufficient outlet.

The Town is assessed for its lands and roads within the watershed, and is also tasked with funding the project in its entirety. The Town portion of cost related to drainage is paid for by the drain reserve fund which comes from the general tax levy.

6. CONSULTATIONS:

ERCA has been notified of this project and has the ability as a prescribed person defined in the Act, to ask for an Environmental Assessment under Section 6(1). An engineer cannot be appointed until 30 days have passed under the Act once notification is given to all prescribed persons. The 30 day period expired on August 17, 2024. An ERCA permit will be required under Section 28 of the Conservation Authorities Act.

7. CONCLUSION:

Administration is recommending that the appointment of the firm of Dillon Consulting Limited for the Repair and Improvement to the Albert Mcgee Drain (Upper) drainage system, be brought to the next available Regular Council meeting for Council's consideration pursuant to the provisions of the Drainage Act.

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

Attachment(s):

- Request for Improvement received.

The Corporation of The Town of Amherstburg

MAJOR IMPROVEMENT of a MUNICIPAL DRAIN

(Section 78 (1.1) of the Ontario Drainage Act)

FROM: Catherine Anne Botek

DRAIN: Albert McGee Drain - Upper

In accordance with section 78 (1.1) of the *Drainage Act*, take notice that I/We, as owner of land affected, request that the above mentioned drain be improved.

a) ☑ Repair/Improvements upon Examination and Report of Engineer (Section 78)

b) ☑ New Access Bridge Section 78 (1.1)

☐ Residential Bridge ☒ Agricultural Bridge

The work being requested is (check all appropriate boxes):

☐ - Changes the course of drainage works;
☐ - Making a new outlet for the whole or any part of the drainage works;
☑ - Constructing a tile under the bed of the whole or any part of the drainage works;
☑ - Constructing, reconstructing or extending bridges or culverts;
☐ - Extending the drainage works to an outlet;
☐ - Improving or altering the drainage works if the drainage works is located on more than one property;
☑ - Covering all or part of the drainage works;
☐ - Consolidating two or more drainage works; and/or
☐ - Any other activity to improve the drainage works, other than an activity prescribed by the Minister as a minor improvement.

Provide a more specific description of the proposed drain major improvement you are requesting.

Require farm access over the Albert McGee Drain - Upper

Property Owners

- Your municipal property tax bill will provide the property description and parcel roll number.
- In Rural areas, the property description should be in the form of (part), lot, concession and civic address.
- In Urban areas, the property description should be in the form of street address and lot and plan number, if available.

PROPERTY DESCRIPTION [redacted]	
GEOGRAPHIC TOWNSHIP Former Malden Township	PARCEL ROLL NUMBER [redacted]

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

If the property is owned in partnership, all partners must be listed. If the property is owned by a Corporation, list the Corporation's name and the name and corporate position of the authorized officer. **ONLY THE OWNER OF THE PROPERTY MAY REQUEST A DRAIN IMPROVEMENT.**

Please select the ownership Type and complete the applicable information box below;
☑ - **SOLE OWNERSHIP: If the land is owned solely by you, please complete the following**

Owner Name: (Last, First)	Signature:	Date: (yyyy/mm/dd)
Botek, Catherine Anne	C. Botek	2024/07/17
Enter the mailing address		
Unit Number:	Street Number: [redacted]	Street Name: South Side Road
City/Town: RR 5 Amherstburg	Province: Ontario	Postal Code: N9V 0C8
Telephone Number: [redacted]	Cell phone:	Email address: (optional)

☐ - **PARTNERSHIP: If the land is owned by a Partnership, please complete the following**

Names of Owners: (Last, First)	Signature:	Date: (yyyy/mm/dd)
Enter mailing address and primary contact information		
Last Name:	First Name:	
Unit Number:	Street Number:	Street Name:
City/Town:	Province:	Postal Code:
Telephone Number:	Cell phone:	Email address: (optional)

☐ - **CORPORATION: If the land is owned by a Corporation, please complete the following**

Name of Signing Officer: (Last, First)	Name of Corporation:	
I have the authority to bind the Corporation. Signature:	Position Title:	Date: (yyyy/mm/dd)
Enter the mailing address of the primary contact		
(Name , Last):	(Name, First):	
Unit Number:	Street Number:	Street Name:
City/Town	Province:	Postal Code:
Telephone Number:	Cell phone:	Email address (optional)

To be completed by the Clerk of the Corporation of the Town of Amherstburg.

Notice filed this 17th day of July 2024.

PAGLIA, SAM

Name of Clerk: (Last, First)

Signature of Clerk

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

THE CORPORATION OF THE TOWN OF AMHERSTBURG

OFFICE OF ENGINEERING AND PUBLIC WORKS

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

Author's Name: Sam Paglia	**Report Date: August 26, 2024**
Author's Phone: 519 736-3664 ext. 2318	**Date to Drainage Board: September 10, 2024**
Author's E-mail: spaglia@amherstburg.ca	**Resolution #: N/A**

To: **Members of the Drainage Board**

Subject: Various Drainage Apportionments

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1. RECOMMENDATION:

It is recommended that:

1. The report from the Drainage Superintendent and Engineering Coordinator dated August 26, 2024, regarding Various Drainage Apportionments **BE RECEIVED**;

2. The drainage apportionments **BE APPROVED** as listed:

    - **Consent B/13/24 -** Drainage Apportionments for the Deslippe Drain & Long Marsh Drain– 6081 County Rd. 18

3. Administration **BRING FORWARD** the Drainage Board's recommendation to approve by resolution, the drainage apportionments at a future Regular Council Meeting.

2. BACKGROUND:

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

This report deals with five (5) drainage apportionments, each of which are associated with separate, individual conditions of severance.

3. DISCUSSION:

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

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

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

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

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

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

It is important to note that an apportionment does not set new values. The ratio in the current bylaw for the affected lands is apportioned to the affected lands in the severance accordingly. When several apportionments are completed on one particular drain, the assessment to lands not affected by severance becomes more and more unfair as more apportionments are completed. Therefore, S65 apportionments are only valid until such time as an engineer is appointed by Council on the respective drains, where the engineer is obligated to assess all lands and roads in the watershed. Any lands affected by apportionment will likely be re-assessed a different value determined by the appointed engineer, and in an unbiased nature within the schedule of assessments in that report which becomes the new bylaw for the drain.

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

- **Consent B/13/24 -** Drainage Apportionments for the Deslippe Drain & Long Marsh Drain– 6081 County Rd. 18

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

4. RISK ANALYSIS:

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

5. FINANCIAL MATTERS:

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

6. CONSULTATIONS: - N/A

7. CONCLUSION:

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

_____

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

Attachment(s):

- **Consent B/13/24 -** Drainage Apportionments for the Deslippe Drain & Long Marsh Drain– 6081 County Rd. 18

The Corporation of The
Town of Amherstburg

July 30, 2024

RE: Section 65 Drainage Apportionment – Consent B/13/24

Dear Landowner:

This letter is to advise you of changes to the drainage assessment for the parcels located at [redacted] County Road 18 legally described as CON 6 PT LOT 74 along with the parcel located at [redacted] Concession 6 legally described as MALDEN CON 6 PT LOT 74 RP 12R11840, PART 1. This reapportionment of drainage liability is in relation to the Application for Consent B/23/24, which proposes to sever a 0.126 hectare parcel of land from the existing agricultural parcel with Roll No. [redacted] showing a current area of 18.92 Hectares and merge with [redacted]. The merged parcel area shall be 3.13 hectare and the retained parcel area shall be shall be 18.792 and remains agricultural land for this agreement only.

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

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

1. **Deslippe Drain** – Report by N.J. Peralta - Bylaw No. 83-13
2. **Deslippe Drain** – Report for Bridge sharing costs by R.C. Spencer Assoc. - Bylaw No. 2024-020
3. **Long Marsh Drain** – Report by N.J. Peralta, P.Eng., dated January 27, 1993, by-law 2917 & 3023

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

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

Sincerely,

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

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

1. DESLIPPE DRAIN - open ditching

These parcels are in the watershed of the Deslippe Drain and the farm parcel ([redacted]) encompass the addition of lots that were subsequently severed ([redacted]) and are assessable to the drain. This apportionment has considered the lot additions and the farm is apportioned for its affected area only. This affected area is now affected by this application and owners are to agree on their share of assessment in this agreement in order that the Town may recover the actual costs for any work performed on the drain, and until such time as the current appointed engineer produces a report that is adopted and accounts for the share of drainage assessments for same.

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DESLIPPE DRAIN							
Existing Assessment – N.J. Peralta, P.Eng., 1983, by-law 83-17							
Conc.	**Lot**	**Affected Area (HA)**	**Roll No.**	**Owner**	**Benefit Assessment**	**Outlet Assessment**	**TOTAL**
6	74	19.27	[redacted]	Ivan Deslippe	$ 767.28	$1,318.27	$ 2,085.54
6	74	0.19	[redacted]	N/A	$ 7.57	$ 13.00	$ 20.56
							$ 2106.11

DESLIPPE DRAIN							
Reapportionment – Application for Consent B/13/24							
Conc.	**Lot**	**Affected Area (HA)**	**Roll No.**	**Owner**	**Benefit Assessmer**	**Outlet Assessment**	**TOTAL**
6	74	19.083	[redacted]	Brian Renaud	$ 762.26	$ 1309.65	$ 2071.91
6	74	0.313	[redacted]	Alexander Sharma	$ 12.58	$ 21.62	$ 34.20
							$ 2106.11

2. DESLIPPE DRAIN CULVERT SHARING – BY-LAW 2024-020

Both parcels are in the 2024-020 for the sharing of cost in the replacement of three(3) access bridges over the Deslippe drain that are currently being prepared for tender. The apportionment ratios within this agreement are used to assess the actual of the works once the Town has completed the works and recovers costs for same.

REPLACEMENTS OF ACCESS CULVERTS OVER THE DESLIPPE DRAIN - RC SPENCER BYLAW 2024-020				
Schedule of Assessment for Construction of Culvert No. 1				
SCHEDULE A-1		**BENEFIT LIABILITY**	**OUTLET LIBILITY**	**TOTAL LIABILITY**
[redacted] - Brian Renaud - [redacted]	18.919	$ -	$ 1,835.00	$ 1,835.00
[redacted] - Alexander Sharma - [redacted]	0.187	$ -	$ 54.00	$ 54.00
		$ -	$ 1,889.00	**$ 1,889.00**

RE_APPORTIONMENT - A-1				
SCHEDULE A-1		**BENEFIT LIABILITY**	**OUTLET LIBILITY**	**TOTAL LIABILITY**
[redacted] - Brian Renaud - [redacted]	18.793	$ -	$ 1,798.61	$ 1,798.61
[redacted] - Alexander Sharma - [redacted]	0.313	$ -	$ 90.39	$ 90.39
		$ -	$ 1,889.00	**$ 1,889.00**

Schedule of Assessment for Construction of Culvert No. 2				
SCHEDULE A-2		**BENEFIT LIABILITY**	**OUTLET LIBILITY**	**TOTAL LIABILITY**
[redacted] - Brian Renaud - [redacted]	18.919	$ -	$ 2,278.00	$ 2,278.00
[redacted] - Alexander Sharma - [redacted]	0.187	$ -	$ 68.00	$ 68.00
		$ -	$ 2,346.00	**$ 2,346.00**

RE_APPORTIONMENT - A-2				
SCHEDULE A-2		**BENEFIT LIABILITY**	**OUTLET LIBILITY**	**TOTAL LIABILITY**
[redacted] - Brian Renaud - [redacted]	18.793	$ -	$ 2,232.18	$ 2,232.18
[redacted] - Alexander Sharma - [redacted]	0.313	$ -	$ 113.82	$ 113.82
		$ -	$ 2,346.00	**$ 2,346.00**

Schedule of Assessment for Construction of Culvert No. 3				
SCHEDULE A-3		BENEFIT LIABILITY	OUTLET LIBILITY	TOTAL LIABILITY
[redacted] - Brian Renaud - [redacted]	18.919	$ -	$ 2,250.00	$ 2,250.00
[redacted] - Alexander Sharma - [redacted]	0.187	$ -	$ 67.00	$ 67.00
		$ -	$ 2,317.00	**$ 2,317.00**

RE_APPORTIONMENT - A-3				
SCHEDULE A-3		BENEFIT LIABILITY	OUTLET LIBILITY	TOTAL LIABILITY
[redacted] - Brian Renaud - [redacted]	18.793	$ -	$ 2,204.86	$ 2,204.86
[redacted] - Alexander Sharma - [redacted]	0.313	$ -	$ 112.14	$ 112.14
		$ -	$ 2,317.00	**$ 2,317.00**

3. LONG MARSH DRAIN - January 27, 1993 bylaw 3023 and 2917

These parcels are in the watershed of the Deslippe Drain and the farm parcel ([redacted]) encompass the addition of lots that were subsequently severed [redacted]) after the adoption of the drainage report and are assessable to the drain. This apportionment has considered the lot additions and the farm is apportioned for its affected area only without the area for the created lots. This affected area after adjustment is now affected by this application and provided that the owners agree on their share of assessment in this agreement, the bylaw for the recovery of drain cost may be used by the Town to recover the actual cost for any work that the Town may perform on the drain, and until such time as an engineer is appointed by Council to update the bylaw for the drain.

LONG MARSH DRAIN							
Existing Assessment – N.J. Peralta, P.Eng., 1993, by-law 3023							
Conc.	**Lot**	**Affected Area (HA)**	**Roll No.**	**Owner**	**Benefit Assessment**	**Outlet Assessment**	**TOTAL**
6	74	19.49	[redacted]	Ivan Deslippe	$ 0	$ 1063.90	$ 1,063.90
6	74	0.19	[redacted]	N/A	$ 0	$ 22.10	$ 22.10
							$ 1,086.00

LOING MARSH DRAIN							
Reapportionment – Application for Consent B/13/24							
Conc.	**Lot**	**Affected Area (HA)**	**Roll No.**	**Owner**	**Benefit Assessmer**	**Outlet Assessment**	**TOTAL**
6	74	19.36	[redacted]	Brian Renaud	$ 0	$ 1,050.00	$ 1,050.00
6	74	0.313	[redacted]	Alexander Sharma	$ 0	$ 36.00	$ 36.00
							$ 1,086.00

CORPORATION OF THE TOWN OF AMHERSTBURG

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

DESLIPPE DRAIN – By-Law 83-17

Agreement between **Brian Christopher Renaud and Alexander Sharma** for cost apportionment due to severance or sale of land in the **Deslippe Drain** drainage watershed or system.

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

DESLIPPE DRAIN							
Reapportionment – Application for Consent B/13/24							
Conc.	**Lot**	**Affected Area (H**	**Roll No.**	**Owner**	**Benefit Assessment**	**Outlet Assessment**	**TOTAL**
6	74	19.083	[redacted]	Brian Renaud	$ 762.26	$ 1309.65	$ 2071.91
6	74	0.313	[redacted]	Alexander Sharm	$ 12.58	$ 21.62	$ 34.20
							$ 2106.11

Retained Property Owner 1 (printed)

Aug 7/24
Date

Brian Renaud
Retained Property Owner 1 (signature)

ALEX SHARMA
Merged Property Owner 1 (printed)

AUG 2/2024
Date

Merged Property Owner 1 (signature)

CORPORATION OF THE TOWN OF AMHERSTBURG

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

DESLIPPE DRAIN – By-Law 2024-020

Agreement between **Brian Christopher Renaud and Alexander Sharma** for cost apportionment due to severance or sale of land in the **Deslippe Drain** drainage watershed or system, and for the culvert sharing portions depicted herein.

RE_APPORTIONMENT - A-1				
SCHEDULE A-1		BENEFIT LIABILITY	OUTLET LIBILITY	TOTAL LIABILITY
[redacted]- Brian Renaud[redacted]	18.793	$ -	$ 1,798.61	$ 1,798.61
[redacted]- Alexander Sharma -[redacted]	0.313	$ -	$ 90.39	$ 90.39
		$ -	$ 1,889.00	**$ 1,889.00**

RE_APPORTIONMENT - A-2				
SCHEDULE A-2		BENEFIT LIABILITY	OUTLET LIBILITY	TOTAL LIABILITY
[redacted]- Brian Renaud -[redacted]	18.793	$ -	$ 2,232.18	$ 2,232.18
[redacted]- Alexander Sharma[redacted]	0.313	$ -	$ 113.82	$ 113.82
		$ -	$ 2,346.00	**$ 2,346.00**

RE_APPORTIONMENT - A-3				
SCHEDULE A-3		BENEFIT LIABILITY	OUTLET LIBILITY	TOTAL LIABILITY
[redacted]- Brian Renaud -[redacted]	18.793	$ -	$ 2,204.86	$ 2,204.86
[redacted]- Alexander Sharma -[redacted]	0.313	$ -	$ 112.14	$ 112.14
		$ -	$ 2,317.00	**$ 2,317.00**

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

Brian Renaud — Retained Property Owner 1 (printed)

Aug 7/24 — Date

Retained Property Owner 1 (signature)

ALEX SHARMA — Merged Property Owner 1 (printed)

AUG 2/2024 — Date

Merged Property Owner 1 (signature)

CORPORATION OF THE TOWN OF AMHERSTBURG

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

LONG MARSH DRAIN – BY-LAW 30-23

Agreement between **Brian Christopher Renaud and Alexander Sharma** for cost apportionment due to severance or sale of land in the **Long Marsh Drain** drainage watershed or system, and for the culvert sharing portions depicted herein.

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

LOING MARSH DRAIN							
Reapportionment – Application for Consent B/13/24							
Conc.	Lot	Affected Area (H	Roll No.	Owner	Benefit Assessment	Outlet Assessment	TOTAL
6	74	19.36	[redacted]	Brian Renaud	$ 0	$ 1,050.00	$ 1,050.00
6	74	0.313	[redacted]	Alexander Sharm	$ 0	$ 36.00	$ 36.00
							$ 1,086.00

Brian Renaud — Retained Property Owner 1 (printed)

Aug 7/24 — Date

Retained Property Owner 1 (signature)

ALEX SHARMA — Merged Property Owner 1 (printed)

Aug 2/2024 — Date

Merged Property Owner 1 (signature)