

March 12, 2026

The Mayor and Council
The Corporation of the
Town of Kingsville
2021 Division Road North
Kingsville, Ontario
N9Y 2Y9

Re: Ash-Cameron Drain

In accordance with your instructions, we have undertaken an examination of the Ash-Cameron Drain with regards to making drainage improvements in Lot 275, Concession South Talbot Road in the Town of Kingsville. The work includes the installation of three new culverts and the removal of one culvert.

Authorization under the *Drainage Act*

This Engineers Report has been prepared under Section 78 of the *Drainage Act* as per the request of an affected Owner.

R. Dobbin Engineering Inc. was appointed June 19, 2025.

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 Ash-Cameron Drain is an open channel drain located in Lot 275, Concession South Talbot Road. The drain outlets into the 9th Concession Road Drain Extension. The drain begins at the tee portion of a culvert that crosses under South Talbot Road. The drain extends upstream along the north side of South Talbot Road for approximately 171 meters where it turns to the north. It then extends north along the east side of Cameron Sideroad for approximately 997 meters. At this point, the drain turns east and extends across the property with roll no. 570-00701 for approximately 65 meters. The drain then turns north and runs along the backside of the properties that front onto Cameron Sideroad and along the backside of the properties that front onto County Road #34.

The drain was last improved under an Engineer's Report dated July 25, 1994, prepared by Bruce D. Crozier Engineering Inc. Under this report, the Ash-Cameron Drain was created.

On-site Meeting

An On-site Meeting was held on September 17, 2025.

The following were present at the meeting:

- David Moores (R. Dobbin Engineering)
- Lu-Ann Marentette (Town of Kingsville)
- Clare Janisse (Town of Kingsville)
- Mark Fishleigh (County of Essex)
- Jim – Rivard Engineered Products (Landowner)
- Peter Ketler (Landowner)
- Jeff Patterson (Landowner)
- Deb Lamier (Landowner)
- Dan Poisson (Landowner)

The following is a brief summary of the meeting:

- General discussion of the *Drainage Act* and Landowners rights under the *Drainage Act*.
- Landowners were made aware that the Town received two requests for three new culverts in the Ash-Cameron Drain and that this was the first step in the public process.
- These culverts will be assessed 100% against the benefiting owner.
- The landowner for the property with Roll No. 570-00700 also requested that an existing culvert be removed from the drain. This culvert is identified as Culvert No.3 on the drawings.

- The Engineer informed the landowners that the drain should be maintained. The Drainage Superintendent said she would take care of that.
- No other concerns were received.

Discussion and Investigation

The drain was surveyed for its entire length to verify the channel grade for the drain bottom to ensure the new culverts are installed correctly. The open channel is in need of bottom cleanout. At the On-site Meeting, those landowners in attendance did not want any additional work completed. Maintenance of the drain can be addressed, in the future, by the Drainage Superintendent. This Report will provide an updated profile for the drain.

An investigation of each culvert was completed and a summary is shown below:

Culvert No.	Location	Existing Culvert Information	Condition
1	Sta. 0+000 Shared Culvert with Roll No. 570-00799 & South Talbot Road	23m x 1500mm dia. CSP This culvert is part of the Ash-Cameron Drain and the 9 th Concession Road Drain Extension	Fair condition with a couple of holes throughout and some rust starting on the inside of the pipe. The pipe still has some life expectancy left, but should be inspected annually.
2	Sta. 0+393 Roll No. 570-00700 (Secondary Access Culvert)	N/A	New Culvert Location
3	Sta. 0+840 Roll No. 570-00700	7m x 450mm dia. HDPE	Good condition, but undersized for the drain. Landowner requested for this culvert to be removed from the drain.

Culvert No.	Location	Existing Culvert Information	Condition
4	Sta. 0+973 Roll No. 570-00700 (Main Access Culvert)	25m x 600mm dia. CSP This culvert is considered the primary access to the property.	Due to the amount of water and sediment in the drain, the culvert could not be inspected. This culvert is undersized for today's standards and the watershed.
5	Sta. 1+093 Roll No. 570-00700 (Secondary Access Culvert)	N/A	New Culvert Location
6	Sta. 1+142 Roll No. 570-00710	19m x 600mm dia. CSP with a 600x600 CB	Due to the amount of water and sediment in the drain it the culvert could not be inspected. This culvert is undersized for today's standards and the watershed.
7	Sta. 1+525 Roll No. 570-00800	N/A	New Culvert Location

Culvert No. 4 and No. 6 are undersized for the drain based on today's standards. They should be inspected by the Drainage Superintendent after maintenance of the channel is completed to determine the condition of each culvert. Our appointment did not include addressing all culverts for replacement under this report.

In the future, if any additional culverts, other than the ones addressed in this Report, require replacement, a new Engineer's Report is required under Section 78 of the *Drainage Act*.

Public Information Centre Meeting

R. Dobbin Engineering submitted a Draft Engineer's Report dated February 19, 2026. A Public Information Centre Meeting was held on March 11, 2026 to discuss the contents of the Report.

The following were present at the meeting:

- David Moores (R. Dobbin Engineering)
- Lu-Ann Marentette (Town of Kingsville)
- Clare Janisse (Town of Kingsville)
- Tom DiPerko (Landowner)
- Maryann Sladic (Landowner)

The following is a brief summary of the meeting:

- The Drainage Superintendent provided introductions and gave a brief explanation of the project.
- An overview of the *Drainage Act* was provided and it was explained to the landowners in attendance how the project will affect them and more details of the project was provided.
- The Owner of Roll No. 570-00701 asked why his culvert was not assessed as part of this Report. The Drainage Superintendent advised him that his property fronts onto the roadside ditch along Cameron Sideroad, not the municipal drain. The Owner also asked about the cleanout of the roadside ditch. The Drainage Superintendent confirmed that the ditch in front of his property will not be cleaned out as it is a roadside ditch and that she had done that a couple of years ago. The Drainage Superintendent explained that the ditch behind his property is what we are discussing at this meeting, as that is the municipal drain.
- The Owner of Roll No. 570-01400 asked how much her assessment would be for this work. R. Dobbin Engineering outlined that the estimate in the Report is approximately \$26.00. The Town advised her that any amount under \$250.00 is added directly to the tax roll.
- Both residents inquired about the road closure by MTO and were advised that all closures due to the highway widening are up to the MTO, not the Town of Kingsville.
- It was clarified that for this project, the road will not be closed; one lane will be closed to allow for the equipment.
- The Owner of Roll No. 580-06600 reached out to the Drainage Superintendent and Engineer prior to the meeting as he could not attend in person. The Owner had questions related to the proposed work and assessment. Answers were provided to the Owner via email.
- There was discussion in detail about the proposed work and estimated costs.

- No other requests or revisions were received for changes to the report.

Recommendations

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

1. Culvert No. 2 at Station 0+393 shall be installed.
2. Culvert No. 3 at Station 0+840 shall removed from the drain.
3. Culvert No. 5 at Station 1+093 shall be installed.
4. Culvert No. 7 at Station 1+525 shall be installed.
5. A new drain profile and updated maintenance schedule for the open channel shall be developed.

Design

All agricultural and residential culverts have been designed to meet a 1 in 5 year storm event.

Estimate of Cost

It is recommended that the work be carried out in accordance with the accompanying Specification of Work and the Profile, which form part of this Report. There has been prepared an Estimate of Cost in the amount of \$130,560.00 including the cost of engineering. A Plan has been prepared showing the location of the work and the approximate drainage area. An estimate for tendering, inspection, and contract administration has been provided. This estimate includes attendance at the Public Information Session, the Meeting to Consider and the Court of Revision, but does not include any appearances before appeal bodies beyond the Court of Revision.

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 the lands and roads affected by the work and therefore liable for the cost thereof is attached as per the *Drainage Act*. Also, assessments may be made against any public utility or road authority, as per Section 26 of the *Drainage Act*, for any increased cost for the removal or relocation of any of its facilities and plant that may be necessitated by the construction or maintenance of the drainage works. Items to be assessed under Section 26, as specified, shall be tendered separately with the actual cost plus a portion of the engineering (25% of the construction cost). The estimated cost of the drainage works has been assessed in the following manner:

1. Culvert No. 2, No. 3, and No. 5 have been assessed 100% of the cost as a benefit assessment to Roll No. 570-00700.
2. Culvert No. 7 have been assessed 100% of the cost as a benefit assessment to Roll. No. 570-00800.
3. The updated profile and maintenance schedule has been assessed as an outlet assessment against lands and road 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 in his report 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 a 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 to damage, if any, to ornamental trees, fences, land, and

crops occasioned by the disposal of material removed from a drainage works. This shall be considered an allowance for damages.

In this report, no allowances have been made.

Approvals and Drain Classification

The Ash-Cameron Drain is currently classified as a class “F” drain along its length.

Class “F” drains are intermittent or ephemeral (dry for more than three consecutive months). The proposed work will require a permit from the Essex Region Conservation Authority. No authorization is required from Fisheries and Oceans if the work is completed in the dry and the Culvert BMP is followed. No works can take place until all approvals are received.

The proposed improvements and culvert replacements will have very little effect on the drainage works if carried out during low flows in the channel.

Restrictions

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

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

Agricultural Grant

It is recommended that application for subsidy be made for eligible farm tax class agricultural properties by the Township. The Ontario Ministry of Agricultural, Food, and Agribusiness offers the “Agricultural Drainage Infrastructure Program (ADIP)”. This program will pay 1/3 of any eligible agricultural assessments that meet the criteria contained within the policy.

Any assessments against non agricultural properties are shown separately in the Schedule of Assessment.

Maintenance

The open channel shall be maintained and repaired in accordance with the specifications and drawings contained within this report and assessed out using the attached Schedule of Maintenance.

Culvert No. 2 and No. 5 are additional culverts to the property. Therefore, they shall be maintained and repaired using the specifications contained within this report and assessed out with 100% of the cost applied as a benefit assessment to Roll No. 570-00700.

Culvert No. 7 shall be maintained and repaired using the specifications contained within this report and assessed out with 50% of the cost applied as a benefit assessment to Roll No. 570-00800 and 50% of the cost assessed to upstream lands as an outlet assessment as shown in the table on the next page:

Roll No.	Benefit Assessment %	Outlet Assessment %
570-00800	50%	25%
570-01601		4%
570-01700		3%
570-01800		3%
570-01900		8%
570-01901		7%

Any extra cost as a result of the location of underground utilities shall be assessed 100% to the utility as per Section 26 of the *Drainage Act*.

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,

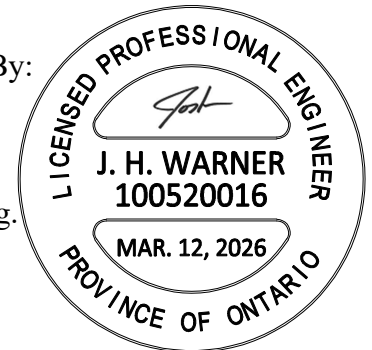
Report Prepared By:

David Moores, C.E.T.



Report Approved By:

Josh Warner, P.Eng.



Estimate of Cost

To remove one culvert and install three new culverts in Lot 275, Concession South Talbot Road.

	Quantity	Unit	Unit Cost	Total
Culvert No. 2 - Station 0+393				
Supply and Install 1050mmø Santite HP	24	m	1,000.00	24,000.00
Open Channel Excavation in the Vicinity of the Proposed Culvert including Disposal (30m)	1	LS	2,000.00	2,000.00
Supply and Install Clearstone Bedding	20	t	45.00	900.00
Supply and Install Granular "B" Type II Backfill	200	t	35.00	7,000.00
Supply and Install Granular "A" Driveway	40	t	40.00	1,600.00
Supply and Install Rip Rap Endwalls	30	t	85.00	2,550.00
Environmental Considerations (Silt Fence)	1	LS	200.00	200.00
				38,250.00
Culvert No. 3 - Station 0+840				
Remove and Dispose Existing Culvert, endwalls, and excess material	1	LS	1,000.00	1,000.00
Bottom Cleanout including Drain Bank Resloping to Match Existing (6m)	1	LS	1,000.00	1,000.00
Supply and Installation of Straw Matting and Grass Seed on Drain Banks	1	LS	1,000.00	1,000.00
Environmental Considerations (Silt Fence)	1	LS	200.00	200.00
				3,200.00
Culvert No. 5 - Station 1+093				
Supply and Installation of 900mmø HDPE	24	m	750.00	18,000.00
Open Channel Excavation in the Vicinity of the Proposed Culvert including Disposal (30m)	1	LS	2,000.00	2,000.00
Supply and Install Clearstone Bedding	20	t	45.00	900.00
Supply and Install Granular "B" Type II Backfill	200	t	35.00	7,000.00
Supply and Install Granular "A" Driveway	40	t	40.00	1,600.00
Supply Rip Rap Endwalls	30	t	85.00	2,550.00
Environmental Considerations (Silt Fence)	1	LS	200.00	200.00
				32,250.00

	Quantity	Unit	Unit Cost	Total
Culvert No. 7 - Station 1+525				
Supply and Installation of 750mmø HDPE	12	m	650.00	7,800.00
Open Channel Excavation in the Vicinity of the Proposed Culvert including Levelling (18m)	1	LS	1,200.00	1,200.00
Supply and Install Clearstone Bedding	20	t	45.00	900.00
Supply and Install Granular "A" Backfill & Driveway	140	t	40.00	5,600.00
Supply Rip Rap Endwalls	20	t	85.00	1,700.00
Environmental Considerations (Silt Fence)	1	LS	200.00	200.00
				<u>17,400.00</u>
Contingency				<u>4,700.00</u>
				Sub Total 95,800.00
				Allowances -
				Engineering 18,220.00
				Update Maintenance Schedule & Drain Profile 3,500.00
				Estimate for Tendering, Inspection & Contract Admin. 10,000.00
				ERCA Fees (Permit) <u>800.00</u>
				Total Estimate excluding HST 128,320.00
				Non-Recoverable HST (1.76%) <u>2,240.00</u>
				Total Estimate \$130,560.00

SCHEDULE OF ASSESSMENT

To remove one culvert and install three new culverts in Lot 275, Concession South Talbot Road.

Conc.	Lot or Part	Affected Hect.	Roll No.	Benefit (\$)	Outlet (\$)	Total (\$)
Agricultural Lands (Grantable)						
STR	pt. Lot 275	14.52	570-00700	101,520.00	1,581.00	103,101.00
	pt. Lot 276	5.34	580-06600	-	388.00	388.00
	Total Agricultural Lands			101,520.00	1,969.00	103,489.00
Non-Agricultural Lands (Non-Grantable)						
STR	pt. Lot 275	0.37	570-00701	-	54.00	54.00
	pt. Lot 275	0.31	570-00710	-	45.00	45.00
	pt. Lot 275	3.06	570-00800	25,540.00	65.00	25,605.00
	pt. Lot 275	0.45	570-00810	-	65.00	65.00
	pt. Lot 275	0.45	570-00820	-	65.00	65.00
	pt. Lot 275	0.45	570-00830	-	90.00	90.00
	pt. Lot 275	0.62	570-00840	-	13.00	13.00
	pt. Lot 275	0.09	570-00900	-	13.00	13.00
	pt. Lot 275	0.09	570-01000	-	13.00	13.00
	pt. Lot 275	0.10	570-01100	-	15.00	15.00
	pt. Lot 275	0.10	570-01200	-	15.00	15.00
	pt. Lot 275	0.24	570-01300	-	35.00	35.00
	pt. Lot 275	0.18	570-01400	-	26.00	26.00
	pt. Lot 275	0.34	570-01500	-	49.00	49.00

Conc.	Lot or Part	Affected Hect.	Roll No.	Benefit (\$)	Outlet (\$)	Total (\$)
STR	pt. Lot 275	0.25	570-01600	-	36.00	36.00
	pt. Lot 275	0.30	570-01601	-	44.00	44.00
	pt. Lot 275	0.23	570-01700	-	33.00	33.00
	pt. Lot 275	0.25	570-01800	-	36.00	36.00
	pt. Lot 275	0.56	570-01900	-	81.00	81.00
	pt. Lot 275	0.39	570-01901	-	57.00	57.00
	pt. Lot 276	0.01	580-06700	-	1.00	1.00
Total Non-Agricultural Lands				25,540.00	851.00	26,391.00
Public Lands						
	South Talbot Road	0.15	Town of Kingsville	-	33.00	33.00
	Cameron Sideroad	1.75	Town of Kingsville	-	508.00	508.00
	County Road 34	0.48	County of Essex	-	139.00	139.00
Total Public Lands				-	680.00	680.00
Total Agricultural Lands				101,520.00	1,969.00	103,489.00
Total Non-Agricultural Lands				25,540.00	851.00	26,391.00
Total Public Lands				-	680.00	680.00
Total Area		31.08	Total Assessment	127,060.00	3,500.00	130,560.00

Ash-Cameron Drain
 Town of Kingsville
 February 19, 2026

SCHEDULE OF MAINTENANCE

To maintain the open channel.

Conc.	Lot or Part	Affected Hectares	Roll No.	Benefit (\$)	Outlet (\$)	Total (\$)
Agricultural Lands (Grantable)						
STR	pt. Lot 275	14.52	570-00700	2,528.00	718.00	3,246.00
	pt. Lot 276	5.34	580-06600	-	316.00	316.00
Total Agricultural Lands				2,528.00	1,034.00	3,562.00
Non-Agricultural Lands (Non-Grantable)						
STR	pt. Lot 275	0.37	570-00701	136.00	66.00	202.00
	pt. Lot 275	0.31	570-00710	112.00	55.00	167.00
	pt. Lot 275	3.06	570-00800	1,264.00	939.00	2,203.00
	pt. Lot 275	0.45	570-00810	164.00	87.00	251.00
	pt. Lot 275	0.45	570-00820	164.00	89.00	253.00
	pt. Lot 275	0.45	570-00830	164.00	90.00	254.00
	pt. Lot 275	0.62	570-00840	227.00	126.00	353.00
	pt. Lot 275	0.09	570-00900	-	17.00	17.00
	pt. Lot 275	0.09	570-01000	-	17.00	17.00
	pt. Lot 275	0.10	570-01100	-	17.00	17.00
	pt. Lot 275	0.10	570-01200	-	17.00	17.00
	pt. Lot 275	0.24	570-01300	-	51.00	51.00
	pt. Lot 275	0.18	570-01400	-	39.00	39.00
	pt. Lot 275	0.34	570-01500	-	71.00	71.00
	pt. Lot 275	0.25	570-01600	91.00	52.00	143.00

Conc.	Lot or Part	Affected Hecatares	Roll No.	Benefit (\$)	Outlet (\$)	Total (\$)
STR	pt. Lot 275	0.30	570-01601	111.00	64.00	175.00
	pt. Lot 275	0.23	570-01700	-	47.00	47.00
	pt. Lot 275	0.25	570-01800	-	51.00	51.00
	pt. Lot 275	0.56	570-01900	-	122.00	122.00
	pt. Lot 275	0.39	570-01901	-	80.00	80.00
	pt. Lot 276	0.01	580-06700	-	5.00	5.00
Total Non-Agricultural Lands				2,433.00	2,102.00	4,535.00
Public Lands						
	South Talbot Road	0.15	Town of Kingsville	83.00	34.00	117.00
	Cameron Sideroad	1.75	Town of Kingsville	956.00	601.00	1,557.00
	County Road 34	0.48	County of Essex	-	229.00	229.00
Total Public Lands				1,039.00	864.00	1,903.00
Total Area		31.08	Total Maintenance Assessment	6,000.00	4,000.00	10,000.00

Ash-Cameron Drain
Town of Kingsville
March 12, 2026

SPECIFICATION OF WORK

1. Scope of Work

The work includes the installation of three culverts and the removal of one culvert. All works are located in Lot 275, Concession South Talbot Road, in the Town of Kingsville.

2. General

Each tenderer must inspect the site prior to submitting their tender and satisfy themselves by personal examination as to the local conditions that may be encountered during this project. The tenderer shall make allowance in the tender for any difficulties which they may encounter. Quantities or any information supplied by the Engineer is not guaranteed and is for reference only.

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

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

3. Plans and Specifications

These specifications shall apply and be part of the contract. 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.

4. Health and Safety

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

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

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

The Contractor shall also ensure that only competent workers are employed on-site and that appropriate training and certification is supplied to all employees.

5. Workplace Safety and Insurance Board

The Contractor hereby certifies that all employees and officers working on the project are covered by benefits provided by the Contractor. The WSIB clearance certificate must be furnished prior to the execution of the Contract and updated every 60 days.

6. Weather Conditions

Work shall be carried out under this Report and completed within the agreed upon Schedule as permitted by weather. The Engineer or the Drainage Superintendent reserves the right to restrict construction and access to the site based on the weather and ground conditions.

7. Access and Working Area

Access to the drain for the replacement of the culverts shall be from Cameron Sideroad. Access for Culvert No. 7 shall be from Cameron Sideroad through the property with Roll No. 570-00800. Access shall be restricted to a width of 6 meters. The working area at each culvert shall extend 10 meters on either side of the culvert within the same property or road.

Access to the drain for channel maintenance shall be from Cameron Sideroad using existing culverts and laneways. The working corridor shall be restricted to 15 meters measured for the top of the drain bank from the side the excavator is working from.

Then working area shall be as follows:

0+000 to 0+171 – North Side

0+171 to 1+168 – East Side

1+168 to 1+233 – North Side

1+233 to 1+765 – East Side and South Side

If a landowner owns property on both sides of the drain, then the working corridor can be either side, based on approval of the landowner.

The working side of the drain can be switched to the road side between Station 0+000 to 1+168 at the discretion of the Drainage Superintendent.

8. Access Culverts

This item shall apply to the construction of the three new culverts.

Culvert No. 2 – 24.0 metres of 1050 mm diameter Sanitite HP pipe with rip rap endwalls, full granular backfill, and a gravel drive.

Culvert No. 5 – 24.0 metres of 900 mm diameter HDPE pipe with rip rap endwalls, full granular backfill, and a gravel drive.

Culvert No. 7 – 12.0 metres of 750 mm diameter HDPE pipe with rip rap endwalls, full granular backfill, and a gravel drive.

The pipe material shall be Sanitite HP pipe or HDPE pipe as specified on the plan and profile with a minimum 320 kPa pipe stiffness and be CSA certified with bell and spigot joints.

The proposed culverts shall be installed as shown on the attached plan and profile. The exact location will be determined in the field at the time of construction. The culvert shall be set with the invert 10% (minimum 150mm) below the proposed channel bottom elevation and to grade shown on the profile.

The culvert may be moved upstream or downstream as necessary to avoid existing tile outlets. If they cannot be avoided, the pipes shall be extended downstream of the proposed culvert and shall be done with non-perforated HDPE agricultural tubing with a manufactured coupling, elbow and rodent grate. Any tile outlets extended as a result of extra length requested by an owner shall be extended at the owner's expense.

Prior to installing the culverts, the drain bottom shall be cleaned out and the excavated material shall be disposed offsite at a location determined by the Contractor. This excavation includes 3 meters upstream and downstream of the proposed culvert. The topsoil from the drain sideslopes and boulevard shall be removed and disposed offsite as well.

The bottom of the excavation shall be excavated to the required depth with any over excavation backfilled with clearstone. When the pipe has been installed to the proper grade and depth, the excavation shall be backfilled with clearstone from 100mm below the bottom of the pipe up to the springline of the pipe. Care shall be taken to ensure that the backfill on either side of the culvert does not differ by more than 300 mm so that the pipe is not displaced. The culverts shall be backfilled from the springline to 300mm of finished grade with granular "B" type 2 or 100% crushed granular "A". The top 300mm for shall be backfilled with compacted 100% crushed granular "A" material to finished grade, including the boulevard between the drain and edge of road.

All backfill shall be free from deleterious material. All granular material shall be mechanically compacted to 98% modified standard proctor density. All backfill material above the springline shall be mechanically compacted using appropriate compaction equipment.

The culvert shall be installed as per manufacture recommendations with a minimum cover of 300mm over top of the pipe measured from the top of the culvert to finished grade. It shall be the responsibility of the Contractor to ensure the culvert has no traffic on it until the minimum cover is met.

End protection shall be rip rap quarry stone placed with a minimum slope of 1.5:1. The rip rap shall consist of 150 mm x 300 mm quarry stone or approved equal. The area to receive the rip rap shall be graded to a depth of 450mm below finished grade. Filter fabric (Terrafix 250R or approved equal) shall then be placed with any joints overlapped

a minimum of 600mm. The quarry stone shall then be placed with the smaller pieces placed in the gaps and voids to give it a uniform appearance.

9. Culvert Removal – Sta 0+840

This item shall apply to the removal of the existing culvert located at Sta. 0+840.

The culvert, endwalls, and excess material shall be removed from the drain and disposed of offsite at a location determined by the Contractor.

The drain banks shall be reshaped to match the existing sideslopes. The sideslopes shall be seeded and straw erosion matting (S150) shall be installed on the exposed drain banks as per manufactured specifications.

10. Open Channel Excavation (Future)

The open channel shall be excavated to the grade line and elevations shown on the attached profile. A laser or similar approved device with a labourer on-site to ensure correctness of grade and to confirm location of tile ends. The sediment shall be removed leaving a rounded bottom with the intent not to undercut the existing sideslopes.

The excavated material shall be cast at least 1.5 metres clear of the top of the bank on agricultural lands with the excavated material spread back and levelled to a maximum depth of 150 mm and left in a cultivated condition.

Excavated material shall be hauled away from any lawn, garden, orchard, parking, roadway, or driveway areas by the Contractor at its expense. All work at the disposal site shall be established between the Contractor and site owner. The Contractor shall be responsible for obtaining any permits required and shall provide copies of the same to the Town.

Excavated material shall not be placed in low runs or swales outletting surface water to the channel. Stones and large branches shall be removed and disposed offsite and shall not be buried when the excavated material is spread.

11. Brushing (Future)

All brush, trees, woody vegetation, cattails, phragmites, etc. shall be removed from the sideslopes of the existing channel within 1.5 metres of the top of the bank. Other brush and trees may be removed from the side the equipment is operating to allow access for the equipment. Trees and brush in the channel bottom shall be removed in their entirety

including stumps and disposed offsite. Trees and brush on the sideslopes shall be close cut.

It is recommended that a mechanical grinder attached to an excavator be used for the removal of brush and trees. Any brush and trees too large to grind shall be close cut with the logs and brush disposed offsite by the Contractor. The Contractor shall be responsible for obtaining all necessary permits for any disposal sites.

Certain trees may be left in place at the direction of the Drainage Superintendent. Any trees to be salvaged by the individual landowners shall be removed by the landowners with all resulting brush and branches cleaned up prior to the start of construction. If the Contractor agrees to remove any trees and set them aside for a landowner, the landowner will be responsible for any cleanup as above.

12. Silt Fence

The Contractor shall maintain a dry working area during construction by installing a silt fence downstream of the work areas. Under this Report, there are four working areas. Silt fences shall be installed downstream of Culvert No. 2, Culvert No. 3, Culvert No. 5, and Culvert No. 7 prior to commencing any work.

The silt fence shall consist of filter fabric or manufactured silt fence supported with posts (OPSD 219.110). The silt fence shall remain in place until construction is complete. Any sediment that has collected upstream of the silt fence shall be removed prior to the removal of the silt fence.

The location of the silt fence can be changed by the Engineer or Drainage Superintendent.

13. Environmental Considerations

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

- Operate machinery in a manner that minimizes disturbance to the banks of the watercourse.
- Erosion and sediment control measures must be installed prior to construction to prevent sediment from entering the water body.

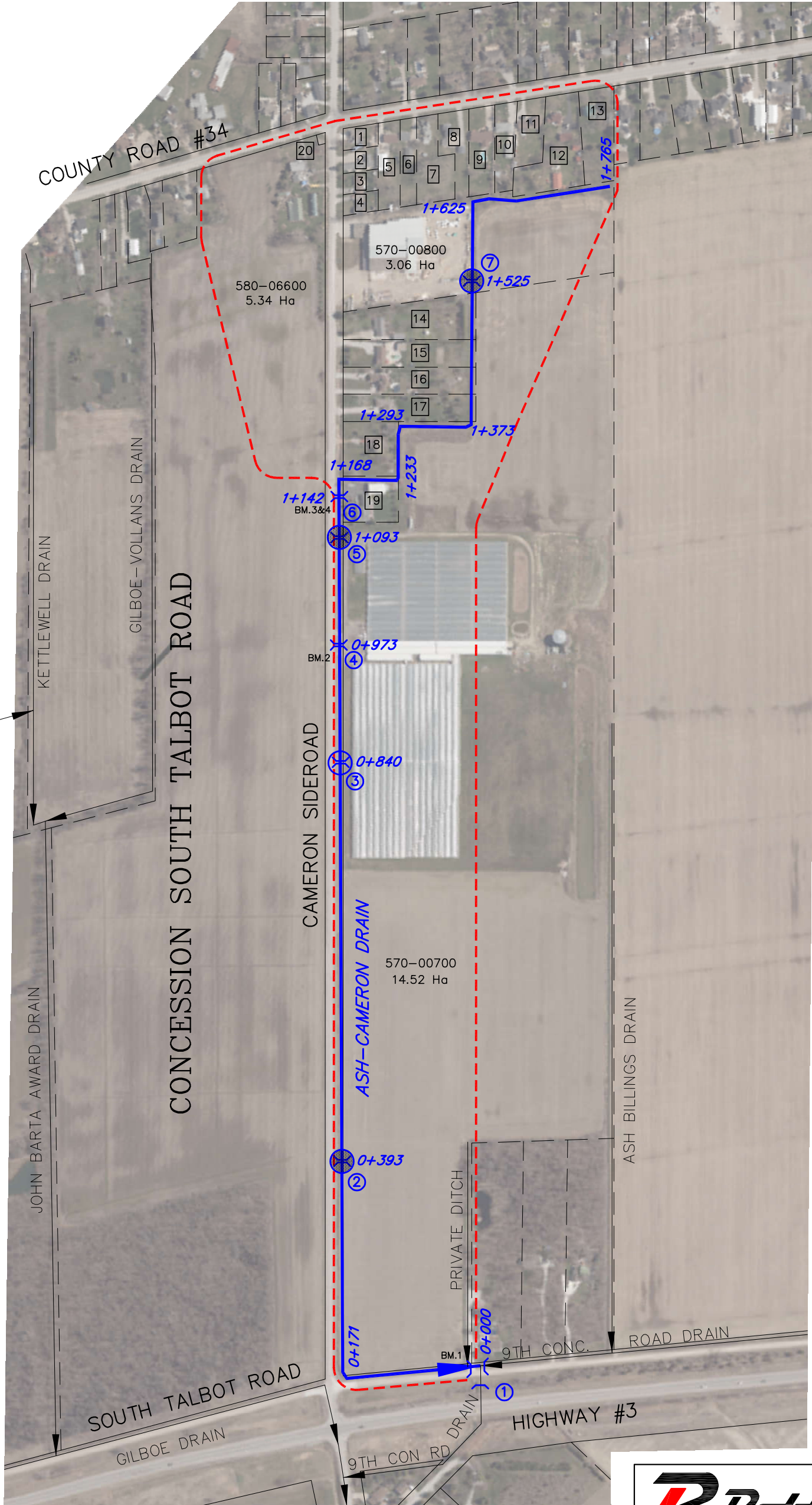
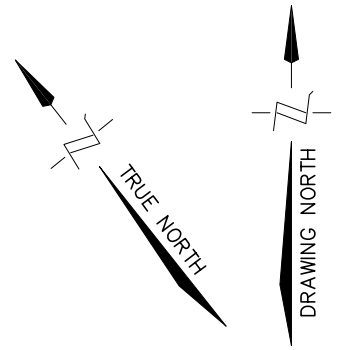
- All granular and erosion control materials shall be stockpiled a minimum of 1.5 metres from the top of the bank or excavation. Material shall not be placed in surface water runs or open inlets that enter the channel.
- All activities, including maintenance procedures, shall be controlled to prevent 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.
- When possible, all construction within the open channel shall be carried out during periods of low flow or in dry conditions.
- The Culvert BMP provided in the Guidance Document for maintaining and repairing municipal drains shall be used to isolate the working area. This shall be included in the tender document.
- 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.
- The Contractor shall remove non-biodegradable erosion and sediment control materials once site is stabilized.
- The Contractor shall remove all construction materials from site upon project completion.

14. Benchmarks

The benchmarks are based on geodetic elevations. Elevations are available at the culvert locations shown on the profile drawings. Where these elevations are on existing structures to be replaced, they shall be moved prior to the removal of the culverts. Prior to construction, it is the responsibility of the Contractor to perform a benchmark loop and report any discrepancies to the Engineer or Drainage Superintendent.

LOT 276

LOT 275

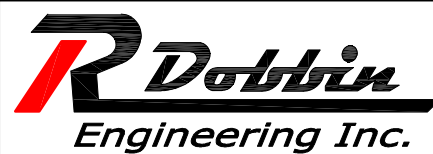


- | | |
|--------------------------|--------------------------|
| 1. 570-01200
0.10 Ha | 11. 570-01800
0.25 Ha |
| 2. 570-01100
0.10 Ha | 12. 570-01900
0.56 Ha |
| 3. 570-01000
0.09 Ha | 13. 570-01901
0.39 Ha |
| 4. 570-00900
0.09 Ha | 14. 570-00840
0.62 Ha |
| 5. 570-01300
0.24 Ha | 15. 570-00830
0.45 Ha |
| 6. 570-01400
0.18 Ha | 16. 570-00820
0.45 Ha |
| 7. 570-01500
0.34 Ha | 17. 570-00810
0.45 Ha |
| 8. 570-01600
0.25 Ha | 18. 570-00701
0.37 Ha |
| 9. 570-01601
0.30 Ha | 19. 570-00710
0.31 Ha |
| 10. 570-01700
0.23 Ha | 20. 580-06700
0.01 Ha |



LEGEND

- ASH-CAMERON DRAIN
- MUNICIPAL DRAIN
- DRAINAGE AREA
- CULVERT LOCATION
- EXISTING CULVERT
- PROPOSED NEW CULVERT
- REMOVE CULVERT



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

DRAWING NAME:
Ash-Cameron Drain Plan

PROJECT No.
2025-1758

APPROVED	NO.	REVISIONS	DATE	BY
J. WARNER				
CHECKED	1	FINAL REPORT	MAR. 12, 2026	DM
D. MOORES				
DRAWN	SCALE: 1:5000			
C. SAUNDERS	0 50 100 150m			

TOWN of KINGSVILLE

ASH - CAMERON DRAIN PLAN

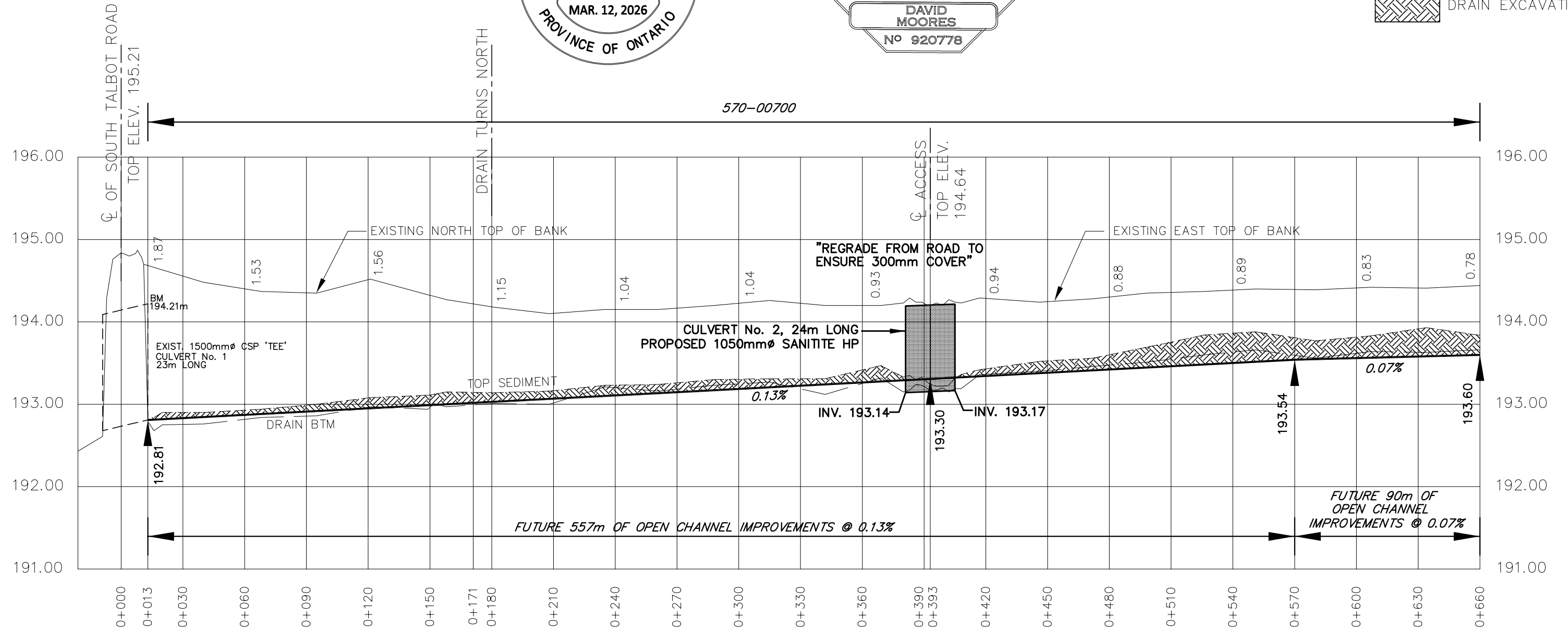
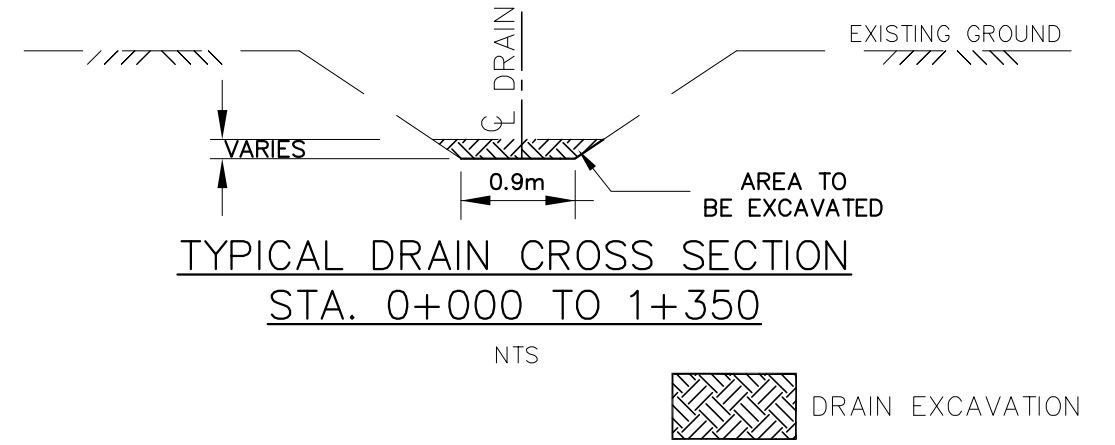
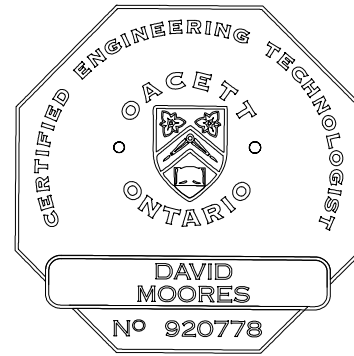
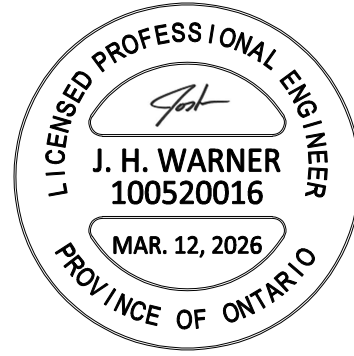
1
OF 7

Last Updated: March 12, 2026

GENERAL NOTES

- BENCHMARK No. 1 ELEV. 194.21
TOP OF WEST END OF 1500mm ϕ CSP ON NORTH SIDE OF SOUTH TALBOT RD AT STA. 0+013.
- BENCHMARKS TO BE TRANSFER FROM EXISTING CULVERT TOP TO NEW CULVERT TOP AFTER REPLACEMENT.
- NEW BENCHMARK TO BE PLACED ON CULVERT No.2 TOP NORTH END, ONCE INSTALLATION IS COMPLETED.

3. UPPER NUMBERS ARE DEPTH FROM TOP OF BANK TO FUTURE CHANNEL BOTTOM.



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DRAWING NAME:
Ash-Cameron Drain Profile 1

PROJECT No.
2025-1758

APPROVED	NO.	REVISIONS	DATE	BY
J. WARNER				
CHECKED D. MOORES	1	FINAL REPORT	MAR. 12, 2026	DM
DRAWN C. SAUNDERS				

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

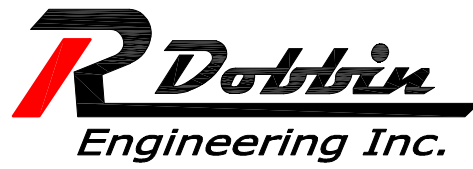
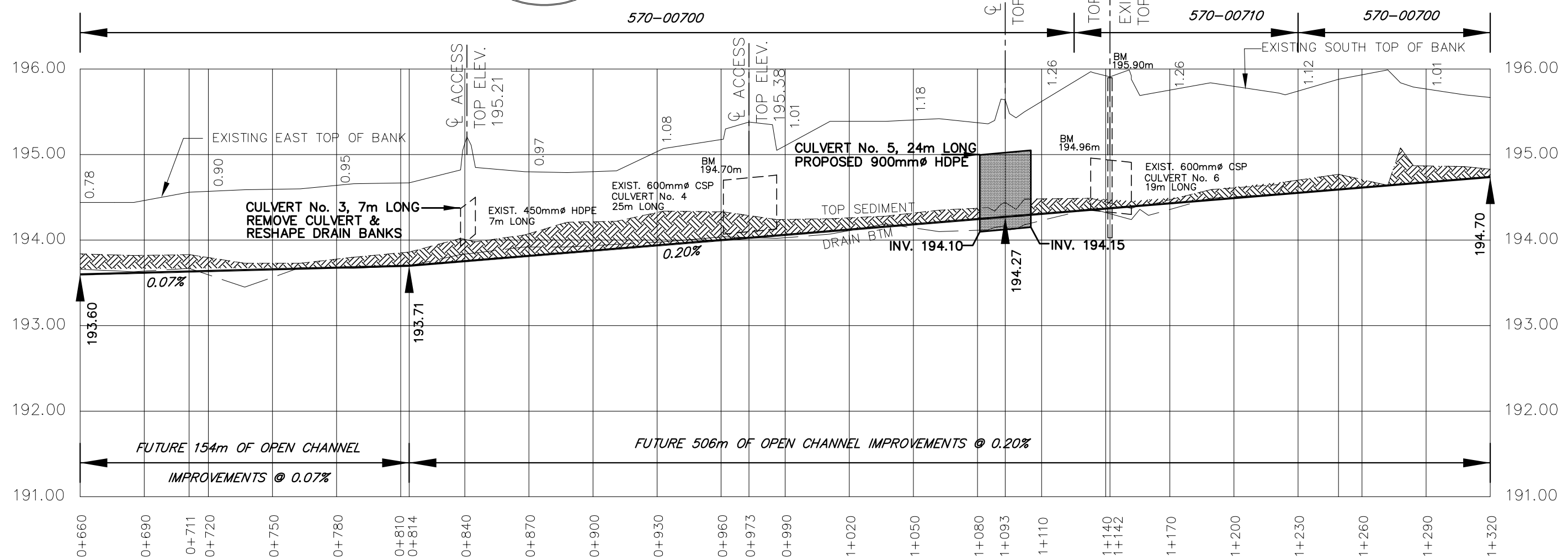
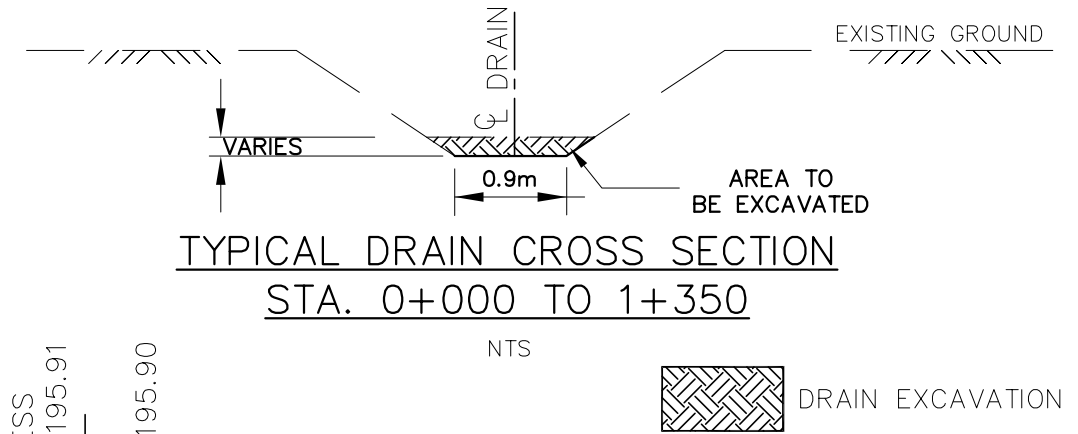
TOWN of KINGSVILLE ASH - CAMERON DRAIN PROFILE

2
OF 7

GENERAL NOTES

- 1. BENCHMARK No. 2 ELEV. 194.70
TOP OF SOUTH END OF EXISTING
600Ø CSP AT CULVERT No. 4 AT
STATION 0+973
BENCHMARK No. 3 ELEV. 194.96
TOP OF SOUTH END OF EXISTING
600Ø CSP AT CULVERT No. 6 AT
STATION 1+142
BENCHMARK No. 4 ELEV. 195.90
TOP OF EXISTING CB AT STA. 1+142.

- 3. NEW BENCHMARK TO BE PLACED ON CULVERT No.5 TOP
NORTH END, ONCE INSTALLATION IS COMPLETED.
- 4. UPPER NUMBERS ARE DEPTH FROM TOP OF
BANK TO FUTURE CHANNEL BOTTOM.



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CHECKED	1	FINAL REPORT	MAR. 12, 2026	DM
D. MOORES				
DRAWN				
C. SAUNDERS				

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

TOWN of KINGSVILLE
ASH - CAMERON DRAIN
PROFILE

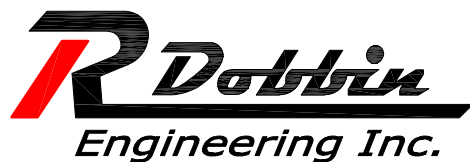
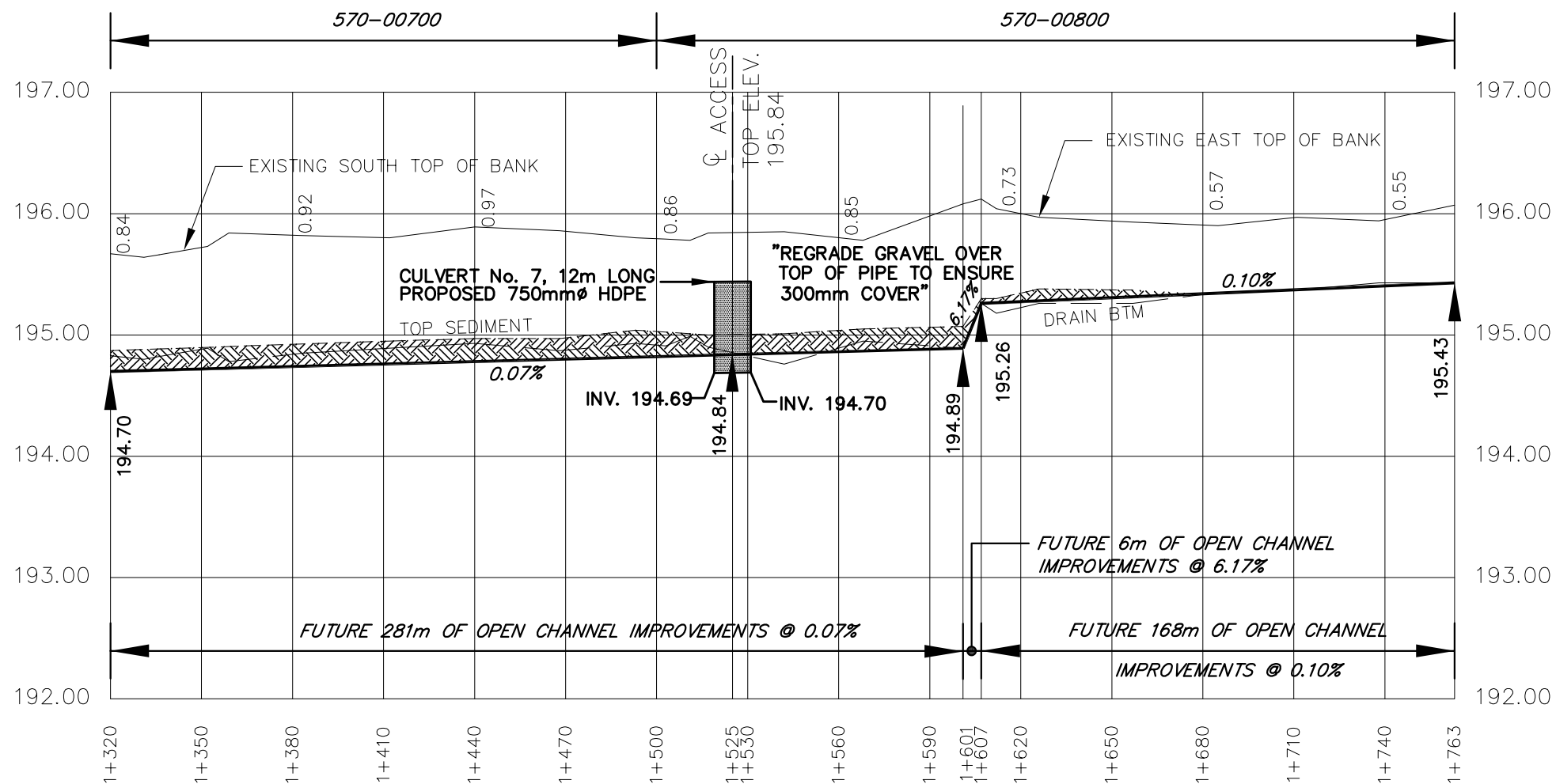
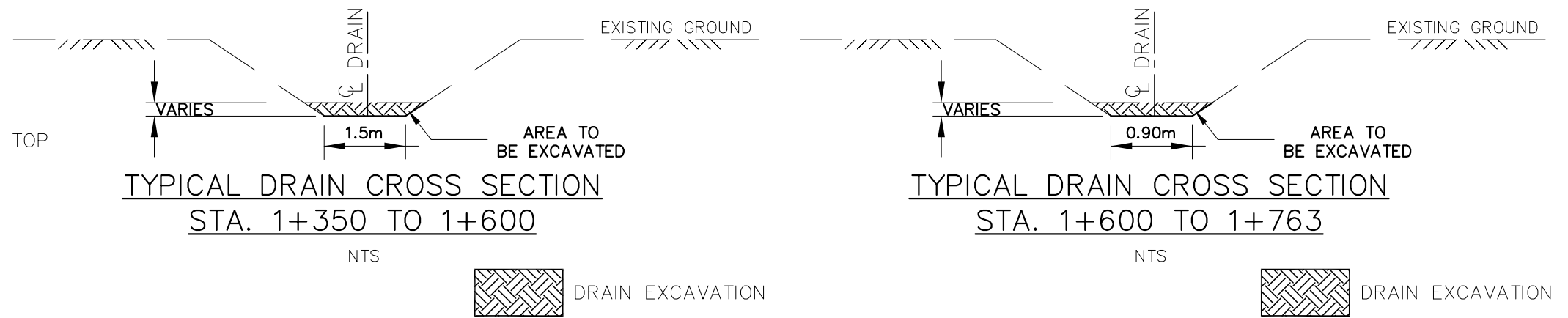
3
OF 7

DRAWING NAME: Ash-Cameron Drain Profile 2 PROJECT No. 2025-1758

Last Updated: March 12, 2026

GENERAL NOTES

1. R. DOBBIN ENGINEERING INC. TO PROVIDE BENCHMARK AT TIME OF CONSTRUCTION IN THE VICINITY OF PROPOSED CULVERT No. 7.
2. NEW BENCHMARK TO BE PLACED ON CULVERT No.7 TOP ONCE INSTALL IS COMPLETED.
3. UPPER NUMBERS ARE DEPTH FROM TOP OF BANK TO FUTURE CHANNEL BOTTOM.



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PROJECT No.
 2025-1758

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

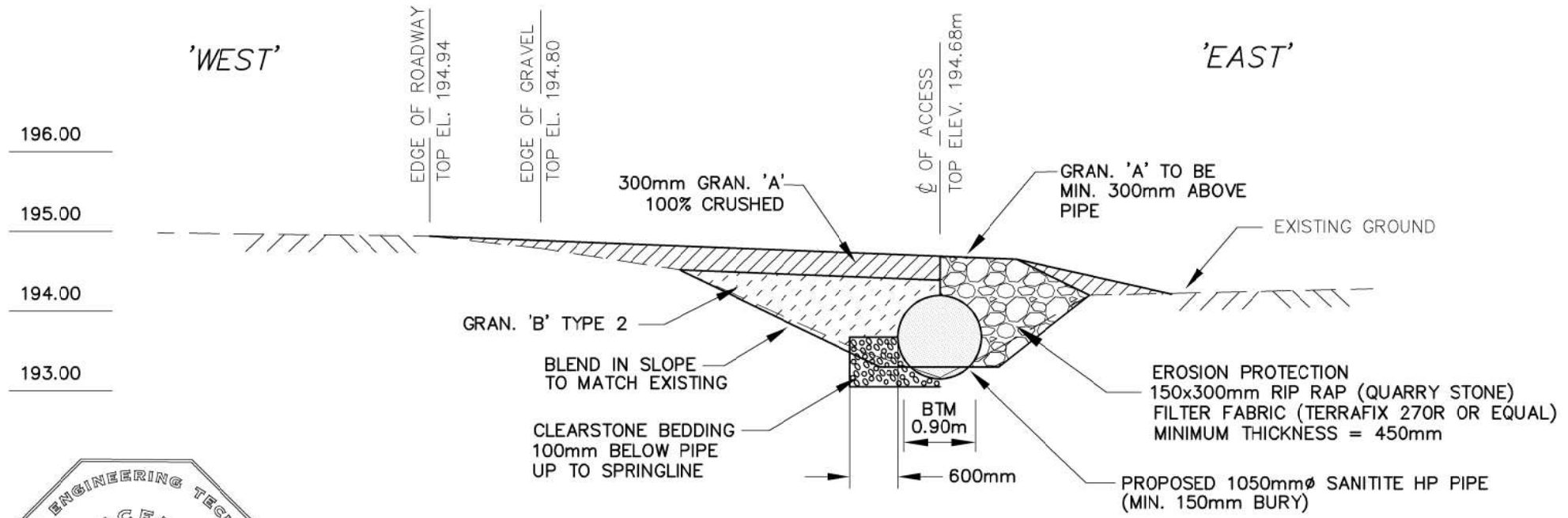
NO.	REVISIONS	DATE	BY
1	FINAL REPORT	MAR. 12, 2026	CS

SCALE: 1:2,000
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TOWN of KINGSVILLE
ASH - CAMERON DRAIN
PROFILE

4
OF 7

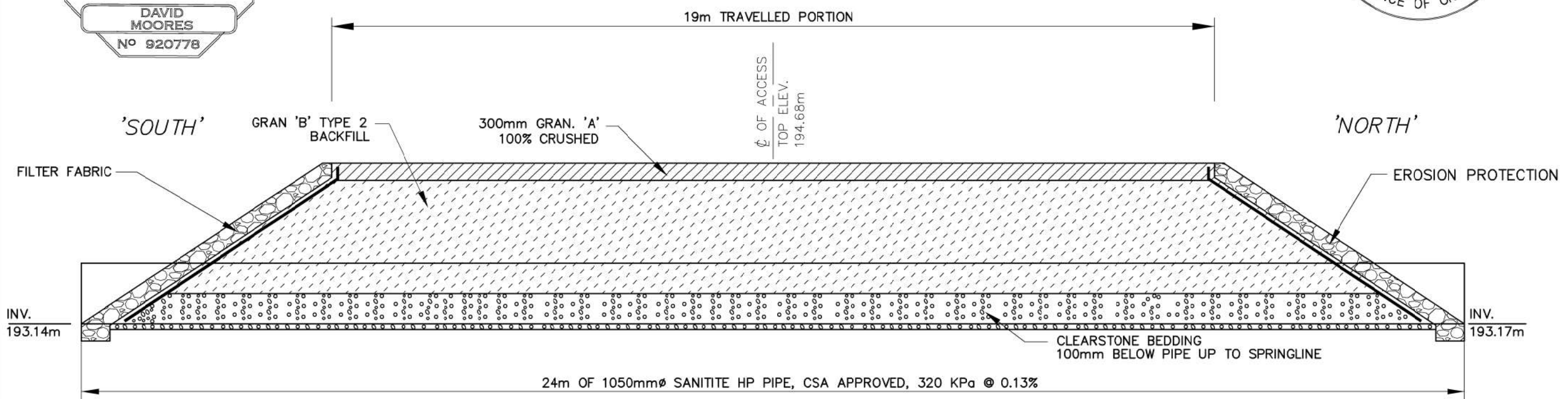
DRAWING NAME:
 Ash-Cameron Drain Profile 3



BM No. 1 ELEV. 195.21m
 TOP WEST END OF EXISTING
 1500Ø CSP ON NORTH SIDE OF
 SOUTH TALBOT RD. AT
 CULVERT No. 1 AT STA. 0+013



PROPOSED PIPE END SECTION



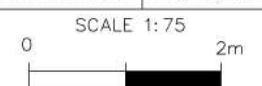
PROPOSED CROSS-SECTION

NOTE: LOCATION REFERENCED
 USING DRAWING NORTH



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J. WARNER				
CHECKED	1	FINAL REPORT	MAR. 12, 2026	DM
D. MOORES				
DRAWN				
C. SAUNDERS				



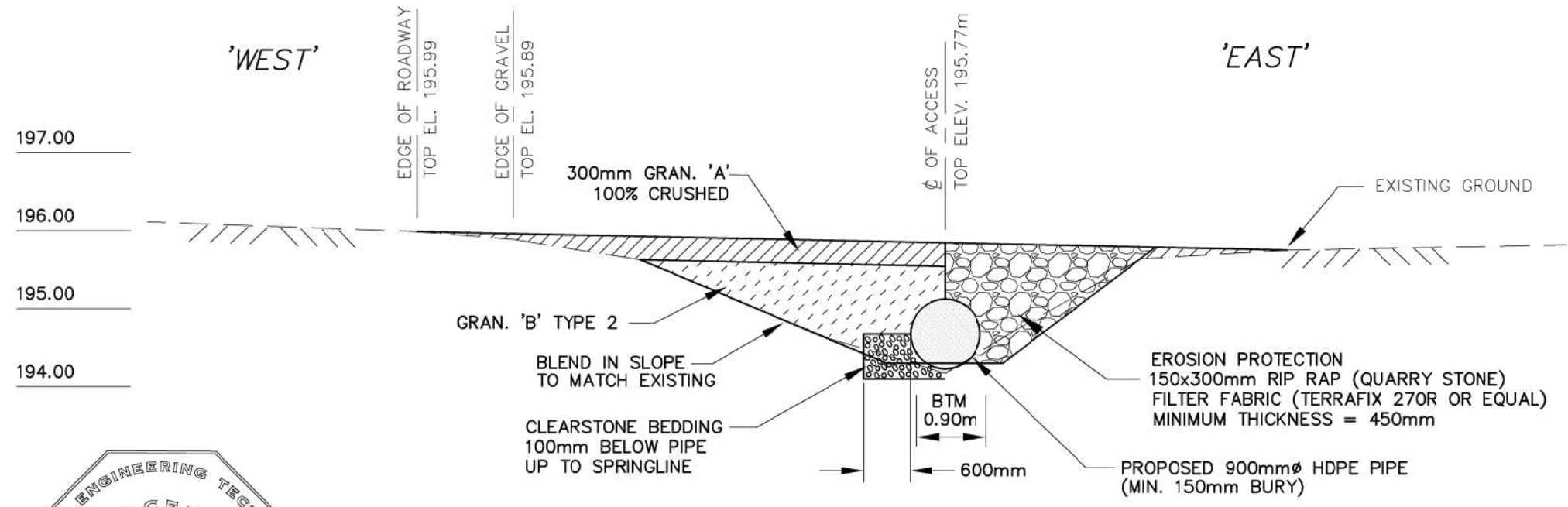
TOWN of KINGSVILLE
 ASH - CAMERON DRAIN
 CULVERT No. 2 DETAILS

**5
 OF 7**

Last Updated: March 12, 2026

DRAWING NAME:
 Ash-Cameron Drain Culvert No. 2 Details

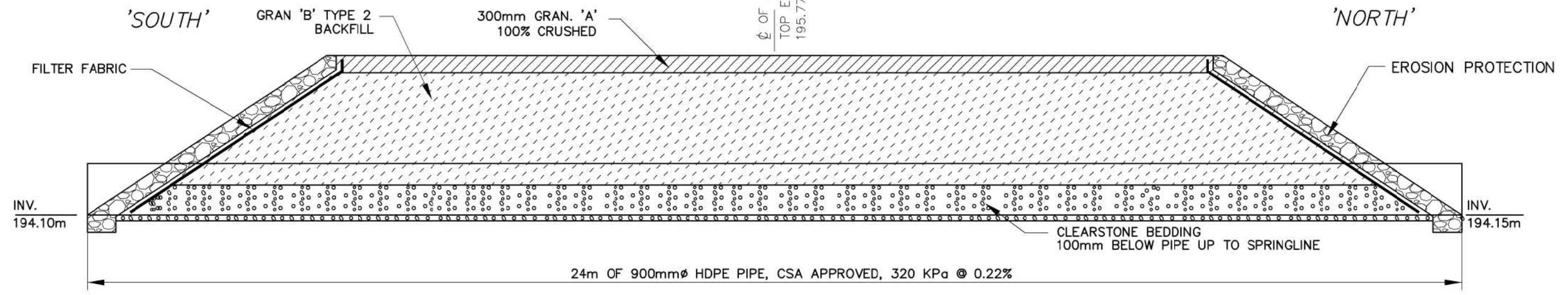
PROJECT No.
 2025-1758



BM No. 4 ELEV. 195.90m
 TOP OF EXISTING CB AT
 CULVERT No. 6 AT STA. 1+142

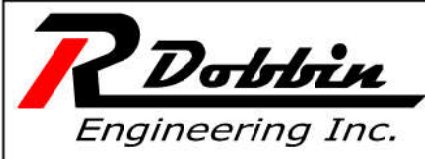


PROPOSED PIPE END SECTION



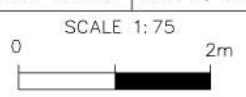
PROPOSED CROSS-SECTION

NOTE: LOCATION REFERENCED
 USING DRAWING NORTH



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CHECKED	1	FINAL REPORT	MAR. 12, 2026	CS
D. MOORES				
DRAWN				
C. SAUNDERS				



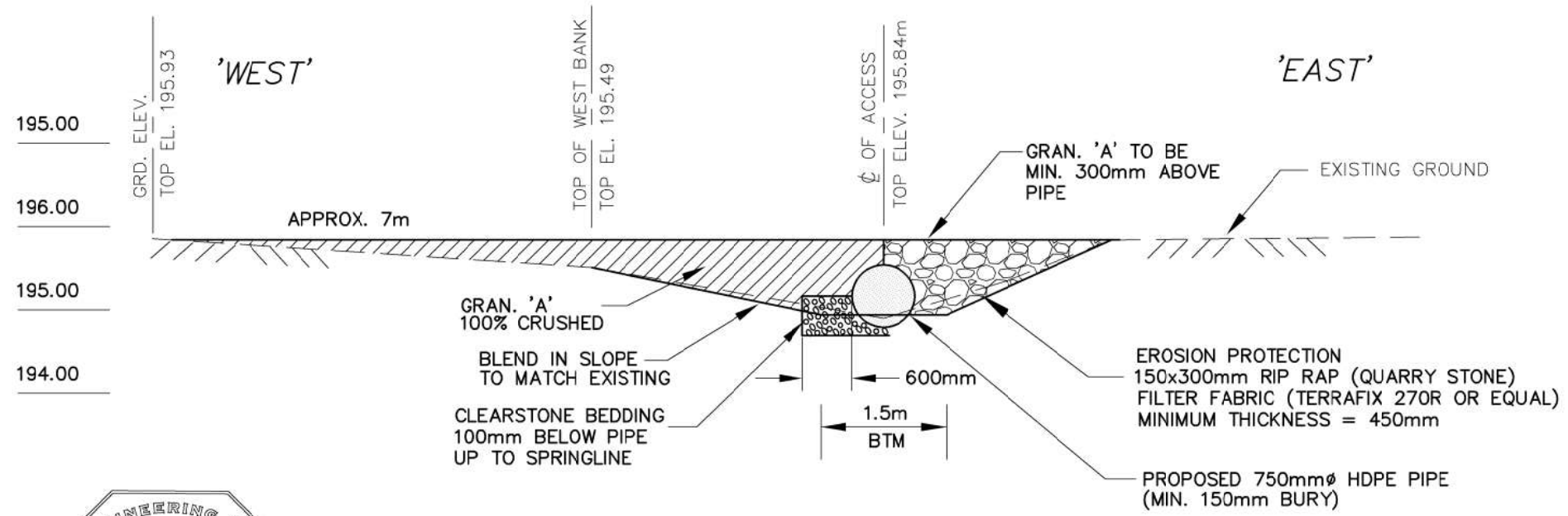
TOWN of KINGSVILLE
 ASH CAMERON DRAIN
 CULVERT No. 5 DETAILS

**6
 OF 7**

Last Updated: March 12, 2026

DRAWING NAME:
 Ash-Cameron Drain Culvert No. 5 Details

PROJECT No.
 2025-1758

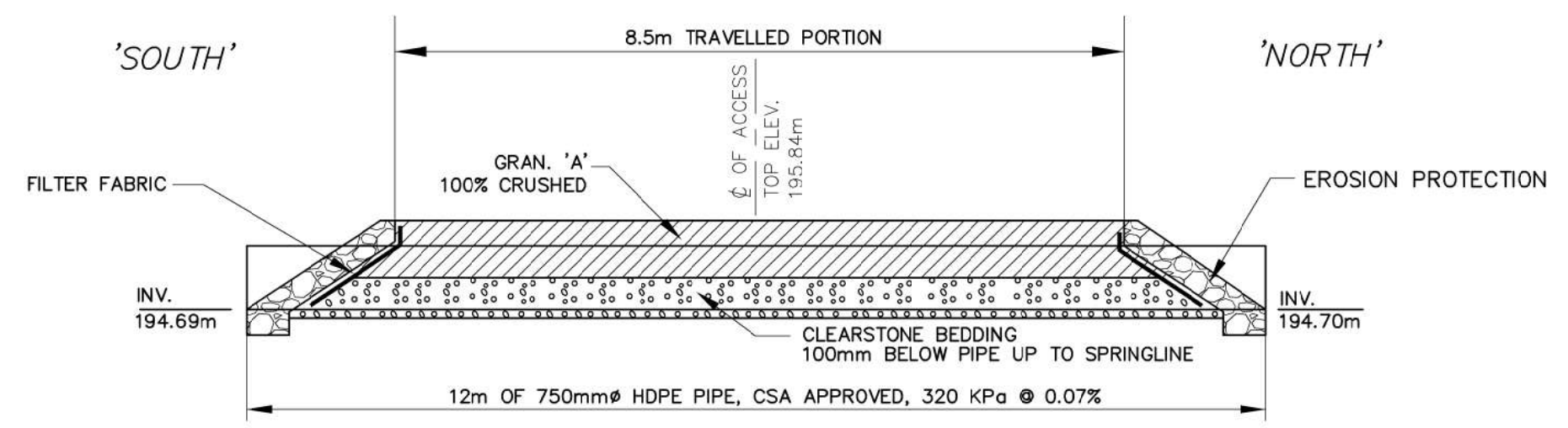


BM No. 4 ELEV. 195.90m
 TOP OF EXISTING CB AT
 CULVERT No. 6 AT STA. 1+142

NOTE:
 R. DOBBIN TO PROVIDE BM
 NEAR PROP. CULVERT No. 7
 AT TIME OF CONSTRUCTION.



PROPOSED PIPE END SECTION



PROPOSED CROSS-SECTION

NOTE: LOCATION REFERENCED
 USING DRAWING NORTH



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DRAWN				
C. SAUNDERS				

SCALE 1:75

TOWN of KINGSVILLE
 ASH CAMERON DRAIN
 CULVERT No. 7 DETAILS

**7
 OF 7**

DRAWING NAME:
 Ash-Cameron Drain Culvert No. 7 Details

PROJECT No.
 2025-1758

Last Updated: March 12, 2026